



**7TH CBIBM  
2022**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

7<sup>th</sup>  
CBIBM  
2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## CONTENTS

- ✚ **WELCOME MESSAGE FROM THE CONFERENCE CHAIR**
- ✚ **KEY NOTE SPEAKERS**
- ✚ **ORGANIZING COMMITTEE**
- ✚ **CONFERENCE COORDINATORS**
- ✚ **CONFERENCE PROGRAM**
- ✚ **ABSTRACT PROCEEDINGS**
- ✚ **ABSTRACT PROCEEDINGS**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Welcome message from the Conference Chair**

Honorable Vice-Chancellor, Fraternity from Academia; Partners from Industry, Presenters; Participants; Research Scholars and Students!

It is a matter of honor for me to welcome you at this prestigious event of the 7th International Conference on Banking, Insurance & Business Management (CBIBM-2022), and 8th – 9th December, 2022 at the Hailey College of Banking and Finance, University of the Punjab, Lahore. Ladies & Gentlemen, the University of the Punjab is fortunate to have a visionary person as Vice Chancellor. Working close to him, I have felt the enthusiasm of a professional and a soaring heart of a Pakistani feeling pain for the state of affairs and committed to bring a change by playing a role to transform the University and to bring back pride to this legendary alma mater. Standing at this occasion, we are authoring history for an institution which is righteously a nursery for the Financial and Corporate Sector of our beloved Homeland.

We are cognizant of the fact that the prosperity and sovereignty of this Islamic State is possible only if the manpower managing the affairs of the State is professionally strong, intellectually creative, and financially honest. They are the people of high integrity making a rich contribution to the capital of the nation in real terms and not just confined to only the financial terms. We are thus striving hard not only to add strength to the academic profile of the younger generation but also carving them to be men and women of integrity and honesty. Ladies and Gentlemen, the rapid shift in the climate has posed new challenges in the economy. Businesses today are shifting towards a more horizontal, inclusive, and social business landscape. This has accelerated the speed of change taking place in priorities and preferences and designing contemporary strategies and approaches to redressing the issues. Therefore the theme of our year's Conference is 'Present Climatic Challenges & Sustainable Business Practices'.

**Professor. Dr. Mubbsher Munawar Khan**  
**Principal Hailey College of Banking & Finance**  
**University of the Punjab**  
**Lahore, Pakistan.**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**KEY NOTE SPEAKERS**

**Dr. Shahid Munir**

Chairman, Punjab Higher Education Commission,  
Pakistan

**Dr. Aman Ullah**

Faculty of Business and Law  
Central Queensland University  
CQ University, Melbourne, VIC, Australia

**Dr. Marco Tieman**

Chief Executive Officer  
LBB International  
Kuala Lumpur, Malaysia

**Prof. Dr. Khuram Shahzad**

HOD, Lahore Business School  
The University of Lahore, Pakistan



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **ORGANIZING COMMITTEE**

#### **Dr. Fizza Rizvi - Conference Secretary**

Dr. Fizza Rizvi, currently working as Assistant Professor in Hailey College of Banking & Finance in University of the Punjab, Pakistan. Her teaching and research interest lies in OB, HR, leadership, and Business strategy. She has published her work in national and international journals. She is also performing her duties as incharge of thesis allocation at HCBF.

#### **Dr. Tehmina Fiaz Qazi**

Dr. Tehmina Fiaz Qazi is currently serving as an Assistant Professor at Hailey College of Banking & Finance, University of the Punjab. Previously she served at IB&M, University of Engineering & Technology, Lahore (Pakistan) as an Assistant Professor. She has obtained her Ph.D. degree in Business Administration. Her research work includes several research papers published in recognized International & National journals and conferences. Her areas of interest include Organizational behaviour, Consumer behaviour, Strategic Management, Leadership, and Human resource Management.

#### **Dr. Muhammad Usman**

Dr. Muhammad Usman is working as Assistant Professor at Hailey College of Banking & Finance, University of the Punjab, Pakistan. He has done Ph.D. Business Administration from School of Management and Economics, Beijing Institute of technology, Beijing, China. His research interest areas are Industrial and Enterprise Innovation Management, R&D Investments, TMT Compensation policies, Digital Economy and Business Intelligence, Financial and Information Technologies, Green technologies and Sustainable Economic Development.

#### **Dr. Zargham Ullah Khan**

Dr. Zargham Ullah Khan is currently serving as an Assistant Professor at Hailey College of Banking & Finance, University of the Punjab. He completed his Ph.D. in Business Administration with an emphasis in Marketing from Yaşar University, Turkey. He is also a law graduate (LL.B.) from the University of the Punjab. He has been associated with the College as a Permanent faculty member for more than 13 years. His research papers have been published in recognized national and international research journals of repute. His interest areas include consumer behavior, technology adoption, and service quality.

#### **Mr. Muhammad Idrees**

Mr. Muhammad Idrees holds the degrees of MBA from Hailey College of Banking & Finance and M.Phil in Accounting from University of Management & Technology (UMT). Currently he is serving as a lecturer at Hailey College of Banking & Finance, University of the Punjab for the last 13 years. Besides his teaching assignments he is campus administrator to facilitate the operations of the college. Previously he was associated with Small Business Finance Corporation (currently SME Bank Limited) and served the institution over 10 years as Officer Grade-III. Accounting & Finance are his area of specialization.



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## CONFERENCE COORDINATORS

1. Hanoof Wasim
2. Kiran Tanveer
3. Talha Imtiaz
4. Misbah Javed
5. Khaleeq Ur Rehman
6. Sadia Maqbool
7. Hajira Nawaz
8. Noor ul Khuda
9. Arooj Fatima
10. Rimsha Shahbaz
11. Aroosha Shahzadi
12. Talha Sattar Dar
13. Ibrar Khan Bazai
14. Amina Irshad
15. Areej Shoukat
16. Sadia Saleem
17. Tayyaba Fatima
18. Sehar Razzaq
19. Rana Usman Ali Khan
20. Umair
21. Muhammad Farhan
22. Divesh Kataria
23. Abdul Rasheed
24. Amna Riaz
25. Aneela Yasmin
26. Saima Shafique
27. Maryam Hassan
28. Fiza Mughal
29. Sameen Shiraz Khan
30. Ahsan Iqbal
31. Muhammad Zabrain
32. Syeda Sumaima Bukhari
33. Rabbia Noor
34. Muhammad Nouman Tariq
35. Misbah Raheem
36. Urooj Waseem
37. Hajira Hassan
38. Sana Nasir
39. Rimsha Shafique
40. Syeda Wania Gohar
41. Sania Nadeem
42. Nabeela Arshad
43. Amina Fayyaz
44. Nafees Ur Rehman
45. Shoaib Ramzan
46. Sabiha Akbar Ali
47. Sana Younas
48. Mehak Rashid



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### CONFERENCE PROGRAM

#### INAUGURATION CEREMONY

Guests to be Seated	10:00 AM
Arrival of Chief Guest	10:30 AM
Welcome Remarks	10:45 AM
National Anthem	10:50 AM
Recitation of Holy Quran	10:55 AM
Hymn in Praise of the Prophet Muhammad (PBUH)	11:00 AM
Welcome Address by Honorable Principal Dr. Mubbsher Munawar Khan	11:20 AM
Keynote Speech by Honorable Dr. Aman Ullah	11:40 AM
Keynote Speech by Honorable Dr. Marco Tieman	12:00 PM
Keynote Speech by Honorable Dr. Khuram Shahzad	12:20 PM
Address by Chief Guest Dr. Shahid Munir	12:40 PM
Photo Session	01:00 AM
Lunch	01:30 PM
Academic Session I	02:00 PM
Academic Session II	03:30 PM

#### END OF DAY ONE

#### SECOND DAY

Academic Session III	09:00 AM
Academic Session IV	10:30 AM
CLOSING CEREMONY	01:00 PM
Lunch	01:30 PM

#### END OF DAY TWO



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

# Academic Sessions

## Day One

## Thursday December 08, 2022





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Session: 1 (Thursday)		Time: 2:00 pm – 3:30 pm	Room # 42
Session Chair: Dr. Rana Ayub			
Sr #	Authors	Study Title	
1	Hajra Dilawar	Antecedents and Consequences of Green Marketing: Consumer Purchase Intention	
2	Muhammad Baqar Naqvi Khawar Razzak	Framework for Standardized Training and Development – Bridging institutional voids through entrepreneurial interventions	
3	Anjum Ilyas Siddiqui Amna Mumtaz Muhammad Ashfaq	What Makes People Actually Adopt the Mobile Payment Services in Pakistan?	
4	Dr. Muhammad Bilal Ahmad Prof. Dr. Mubbsher Munawar Khan	Investigating the Effectiveness of Protean Career Practices on Sustainable Career Development; Do Career Shocks Play any Role?	
5	Lubna Khalid	Impact of Covid-19 on Consumer Buying Behavior towards online shopping in Pakistan	

Session: 1 (Thursday)		Time: 2:00 pm – 3:30 pm	Room # 43
Session Chair: Dr. Khalida Naseem			
Sr #	Authors	Study Title	
1	Hareem Imran Syeda Fizza Abbas Fareeha Waseem	Market Performance Of Listed Companies Implying With Sdgs: A Fuzzy Phenomena	
2	Sadia Butt Dr. Naveed Yazdani	Assessing Students' Expectations and Perceptions Gaps Regarding Service Quality of Business Schools Using SERVQUAL Model: A Comparative Study of a Public and Private Sector Business School in Pakistan Context	
3	Ch. Muhammad Shafique Dr. Raheel Safdar	Board Independence and Firm Performance: The Role of Board Gender Diversity In Pakistan	
4	Salha Ibrar Ahmad	The Impact of Natural Disaster (Flood) on the performance of veterinary employees for sustainable development: Emotional intelligence, resilience and engagement	
5	Samrah Babar	Encouraging Consumers to Reduce Plastic Use by Matching Image and Message	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Session: 1 (Thursday)		Time: 2:00 pm – 3:30 pm	Room # 44
Session Chair: Dr. Hafiz Zafar			
Sr #	Authors	Study Title	
1	Memoona Sajid Reheel Safdar	Supply Chain Finance, Firm Performance, and Industry Competition: Empirical Evidence from Pakistan	
2	Sadia Ashraf	The Impact of Corporate Social Responsibility on Stock Price Crash Risk: Evidence from Pakistan	
3	Muhammad Asif Dr. Muhammad Imran	The Factors that Contribute to the Effectiveness of Internal Audit in Power Sector Pakistan	
4	Ayesha Sattar Dr. Raheel Safdar	Board characteristics, Industry competition and Investment efficiency in Pakistani listed firms	
5	Arooj Fatima Dr. Saleha Javed Dr. Shrafat Ali Sair Dr. Muhammad Usman Dr. Zia-ur-Rehman Rao	Transformational Leadership, Job Autonomy and Employees Commitment in Bank Employees of Lahore, Pakistan	

Session: 1 (Thursday)		Time: 2:00 pm – 3:30 pm	Room # 45
Session Chair: Dr. Fouzia Ali Hadi			
Sr #	Authors	Study Title	
1	Muhammad Nadeem Sadiq	Impact of Employees Training on Job Performance in Commercial Banks of Pakistan	
2	Rabia Rana Zulqarnain	Impact of entrepreneurial intention and financial knowledge on investment behavior with the mediating role of cultural value	
3	Areeba Saif	The Impact Of Selfie Posting Behaviour On Psychological Well-Being	
4	Amna Khan	Financial literacy for employees leads to safer workplace and efficacious productivity	
5	Dr. Shrafat Ali Sair Madeeha Rauf Sayyed Muhammad Bilal <u>Ahsan Aslam Khan</u> Dr. Muhammad Usman	A study to investigate social skills among hearing impaired students in Pakistan	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Session: 1 (Thursday)		Time: 2:00 pm – 3:30 pm	Room # 06
Session Chair: Dr. Muddassar Ghafoor			
Sr #	Authors	Study Title	
1	Zaeem-Ur-Rehman Zeshan Ahmer	Effect of Product Quality and Price on Customer Retention with a mediating role of Customer Satisfaction	
2	Abdul Rehman Mazhar	Corporate Brand Construct of Higher Education Institutions	
3	<b>Dr. Samar Rahi</b> <b>Muhammad Atif</b> <b>Saddal</b> Dr. Muhammd Usman Dr. Talat Islam Muhammad Kashif	Does social media influence firm performance? Evidence from developing country	
4	Saqib Rehman Nabeela Arshad	The Effect of brand Experience and Brand Trust on Brand Resonance: A Study on Potential Customers	
5	Sayyed Muhammad Bilal Madeeha Rauf Malik Muhammad Ali Dr. Shrafat Ali Sair Dr. Zia-ur-Rehman Rao	A study based on time series investigation to determine the factors affecting Foreign Direct Investment in an emerging country like Pakistan	

Session: 1 (Thursday)		Time: 2:00 pm – 3:30 pm	Room # 07
Session Chair: Dr. Farah Naz Naqvi			
Sr #	Authors	Study Title	
1	Nimra Younas	Green transformation leadership, Green HRM and pro-environmental behaviors: An effectual drive to environmental performance in SMEs' of Lahore	
2	Fatima Khan	Linking incremental and Radical Creativity to Product and Process Innovation with Organizational Knowledge	
3	Dr. Shazia Nauman Asma Tariq Muhammad Saleem	Effect of Workplace Incivility on Workplace Deviance and Project Innovation: Mediating role of Perception of Politics	
4	Maria Tariq Dr. Attiq-Ur- Rehman	Impact of motivation on employees' integrity and corporate citizenship behavior in public sector organization	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

5	Hafiza Maham Sattar Dr. Ahmed Muneeb Mehta	Factors Influencing the Adoption of Green Marketing Practices in Corporate Sector of Pakistan
---	---	---

Session: 1 (Thursday)		Time: 2:00 pm – 3:30 pm	Room # Lecture Theatre
Session Chair: Dr. Talat Islam			
Sr #	Authors	Study Title	
1	Imran Shahzad	Determinants of Environmental Performance in Higher Educational Institutes of Pakistan	
2	Ramsha Hameed	The Role of Transformational Leadership, Performance Improvement and Organizational Justice in organizational Performance	
3	Khurram Manzoor	Impact of Service Quality and Perceived Value on Brand Loyalty Among Passengers Satisfaction: an empirical study in context of Pakistan railways	
4	Sahar Latif Rana Abida Hafeez Huma Fatima	Determining An Impact of Societal Norms on Intention To Use Technological Innovations In Smartphone Applications	
5	Dr. Shrafat Ali Sair Kaleem Ullah Dr. Muhammad Usman Dr. Zia-ur-Rehman	<b>Promotions and Performance of non-teaching Staff in Higher Education Institutions of Pakistan</b>	
6	Kanza Sohail Rizwan Danish	<b>Impact of Environmental Corporate Social Responsibility on Green Customer loyalty: Mediating Role of Green Customer Satisfaction and Moderating Role of Attitude towards Green Behavior</b>	

Session: 2 (Thursday)		Time: 3:30 pm – 5:00 pm	Room # 42
Session Chair: Dr. Humaira Asad			
Sr #	Authors	Study Title	
1	Nehan Zaib Dr. Humaira Asad	The Impact of Innovation on Green Growth: Mediating Effect of Green Finance	
2	Tehmina Fiaz Qazi Abdul Aziz Khan Niazi	A theoretical framework to protect whistleblowers from retaliation	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	Hira Tanweer Butt Noor-e-Zainab Shanza Farhat Muhammad Ibrahim	
3	Muhammad Asif Amjad Dr. Nabila Asghar Dr. Hafeez-ur-Rehman	Analyzing the role of social progress in climate vulnerability in developing countries using recent econometric development
4	Muhammad Yaseen	Role of Corporate Governance to Mitigate the Idiosyncratic Risk in Pakistan
5	Hibba Saeed Ahsin Shahid Rida Akbar Dr. Ahmad Usman	Banking Sector Performance measured by CAMELS Rating Framework

Session: 2 (Thursday)		Time: 3:30 pm – 5:00 pm	Room # 43
Session Chair: Dr. Nasir			
Sr #	Authors	Study Title	
1	Anam Toqeer	Linking Digital Leadership Factors and Virtual Team Performance: The role of Virtual Team Culture	
2	Aqsa Amin	Analysis of the factors affecting the consumer's Continuous intentions to use online food delivery apps (OFDA) in Pakistan. A trust transfer theory Perspective	
3	Naveed Khan	Effect of Organizational Justice Organizational Environment And Ethical Leadership On Employee Performance Through Mediating Role of Job Satisfaction	
4	Dr. Samar Rahi Fazeela Shabir Dr. Muhammad Usman Dr. Talat Islam Fiza Mubbsher	Exploring factors which influence customer behaviour to use drone-based innovative food serving restaurants	
5	Tehmina Fiaz Qazi Abdul Aziz Khan Niazi Majid Shafi Ahmad	Co-Movement Between Pakistan Stock Exchange Index, Gold Price, And Foreign Exchange Rate: A Wavelet Analysis	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Session: 2 (Thursday)		Time: 3:30 pm – 5:00 pm	Room # 44
Session Chair: Dr. Hina Saleem			
Sr #	Authors	Study Title	
1	Qandeel Mehndi	The effect of authentic leadership on employee voice behaviour	
2	Wajeeha Sarwar	Influence of Social Media Marketing Activities on Brand Resonance, Post-COVID-19 Analysis	
3	Wassaf Latif Tahreem Sadiq	Transformational Leadership and Work Engagement: Exploring the mediating role of structural empowerment and moderating effect of psychological contracts	
4	Muhammad Arslan Qavi	The Impact of “On-the-job training courses on the Staff Performance” - A Case Study of CIMLA Walton Cantonment	
5	Dr. Irsa Mehboob Zara Imran Dr. Shrafat Ali Sair Dr. Saeed Ahmad Sabir Dr. Muhammad Usman	Investigating the Effect of Online Shopping Trends on Consumer Buying Behavior: An Empirical Study on the Younger Generation of Pakistan	

Session: 2 (Thursday)		Time: 3:30 pm – 5:00 pm	Room # 45
Session Chair: Dr. Ahmed Muneeb Mehta & Dr. Tehmina Fiaz Qazi			
Sr #	Authors	Study Title	
1	Munawar Kashif Dr. Zargham Ullah Khan	The role of human resource practices in the implementation of digital transformation: A case of Pakistani Market	
2	Simaab Akram Dr. Fizza Rizvi	Influence of Green Human Resource Management Practices on Organizational Sustainability and Performance in the service industry of Lahore: Mediating Role of Employee Commitment towards Environment	
3	Shabir Hussain Sakhi Dr. Zargham Ullah Khan	Green HRM and Green Creativity: Mediation of Green Vision and Moderation of Individual Green Values	
4	Usama Saleem	Artificial Intelligence & Human Resource Management. A Descriptive Study on the Educational Sectors in Lahore, Pakistan	
5	Zara Imran Dr. Irsa Mehboob Dr. Shrafat Ali Sair	Desirability of Gender in Advertisements: Know the Pakistani Viewer’s Perspective	





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	Dr. Zia-ur-Rehman Rao Dr. Saeed Ahmad Sabir	
--	--	--

Session: 2 (Thursday)		Time: 3:30 pm – 5:00 pm	Room # 06
Session Chair: Dr. Samar Rahi			
Sr #	Authors	Study Title	
1	Dr.Samar Rahi Iqra Atique Dr. Muhammad Usman Dr. Talat Islam	Does corporate social responsibility (CSR) influence consumer repurchase intention? Evidence from developing country	
2	Dr. Samar Rahi Humaira Sajid Dr. Muhammad Usman Dr. Talat Islam Fiza Mubbsher	Factors influencing individual behavior to adopt e-wallet services in Pakistan	
3	Dr. Samar Rahi Syeda Alina Zahra Dr. Muhammad Usman Dr. Talat Islam	Investigating the impact of E-Customer Relationship Management (E-CRM) towards customer satisfaction in banking sector of Pakistan	
4	Syeda Mehak Fatima  Dr. Zargham Khan	Remuneration Reward Management System As A Driven Factor of Employee Performance	
5	Dr. Samar Rahi Takreem Fatima Dr. Muhammad Usman Dr. Talat Islam Fiza Mubbsher	Investigating consumer behaviour towards green purchasing with mediating role of consumer pro-environmental behaviour and moderating effect of availability of green products	
6	Faryal Shahid Muhammad Farhan Ayaz Muhammad Idrees	Ratio for Prediction of Financial Distress and Its Determinants: Evidence from Banking Sector of Pakistan	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	Hafiz Ahmed Ullah	
--	-------------------	--

Session: 2 (Thursday)		Time: 3:30 pm – 5:00 pm	Room # 07
Session Chair: Dr. Muhammad Usman & Dr. Zargham Ullah Khan			
Sr #	Authors	Study Title	
1	Naveed Alam Dr. Zargham Ullah Khan	Impact of Employees Turnover on Organizational Profit with Moderating Role of Recruitment	
2	Sadaf Choudhary	Knowledge Hoarding: An Individual Choice or a Contextual Enforcement	
3	Misbah Jamil Dr. Zargham-Ullah Khan	A Study To Investigate The Factors Affecting Employee's Retention With Job Stress As A Moderator And Employees Engagement As A Mediator	
4	Iram Shahzadi Dr. Zargham Ullah Khan	A Study to Investigate the factors influencing internet Banking adoption in Emerging market: A case study of Pakistan	
5	Sahar Latif Rana* Huma Fatima Abida Hafeez	Technological Innovations In Smartphone Application: Determining An Impact of Social Norms on Usage of Smartphone Application	
6	Muhammad Tanveer Ikram Mubbsher Munawar Khan	Herding and Heuristic Biases Affecting the Investment Decision Making An Evidence from Pakistan Stock Exchange (PSX)	

Session: 2 (Thursday)		Time: 3:30 pm – 5:00 pm	Lecture Theatre
Session Chair: Mr. Asad Ejaz Sheikh & Dr. Shrafat Ali Sair			
Sr #	Authors	Study Title	
1	Muhammad Farhan Ayaz Faryal Shahid Hafiz Ahmed Ullah Muhammad Idrees	Financial distress and its determinants: Evidence from Banking Sector of Pakistan	
2	Hafiza Amina Shehzadi Dr. Ahmed Muneeb Mehta	Green Banking Practices analyzing CSR and Customer Engagement through Digitalization in the service industry of Lahore: Mediating role of Intention to adopt Green Banking Practices	





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

3	Mohsan Tanveer	A Study of the Factors Triggering Stagnant Growth of the Insurance Industry of Pakistan and Proposed Strategies that can Boost Insurance Penetration of the Country”
4	Ifra Khalid Raheel Safdar	Factors affecting livestock farmer’s access to formal credit in Central Punjab
5	Dr. Shrafat Ali Sair Dr. Aamir Sohail Dr. Saeed Ahmad Sabir Dr. Ijaz Hussain Dr. Sami Ullah	Examining Risks factors in adoption of internet banking: An Empirical assessment of Pakistani Banking Sector
6	Sajjad Umer Jamshaid Ahmad Zain Ashfaq	Annexes of Carbon Dioxide (CO2) Emissions with Economic Growth and Corruption in South Asian Ethnic Group-Panel Analysis



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

# Academic Sessions

## Day Two

### Friday December 09, 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Session: 3 (Friday)		Time: 9:00 am – 10:30 am	Room # 42
Session Chair: Dr. Sayyid Salman Rizavi			
Sr #	Authors	Study Title	
1	Javed Iqbal	Socio Economic Impact of Punjab Rozgar Scheme on SMEs in Punjab	
2	Muhammad Javeed Akhtar Dr Hafeez ur Rehman	Evaluation of Energy clean ability Gap and its Impact on Sustainable Economic Development	
3	Mubasher Iqbal Dr. Rukhsana Kalim Usama Saleem	Moderating Role of Knowledge Economy in Very High Developed Countries – An Aggregate Demand Based Environmental Kuznets Curve Perspective	
4	Syed Jaffar Abbas Muhammad Munawar Hussain Muhammad Salman Sara Shahid	Economic Growth, Energy Consumption And Environment Relationship: A Panel Data Analysis of South-Asian Countries	
5	Dr. Raheel Safdar Hashmat Shabbir	Ownership Concentration and Cost of Equity: The Moderating Role of Disclosure and Governance Quality in Pakistan	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Session: 3 (Friday)		Time: 9:00 am – 10:30 am	Room # 43
Session Chair: Dr. Ashfaq Ahmed			
Sr #	Authors	Study Title	
1	Dr Farah Naz Areeba Butt	The Impact of Financial Inclusion on Carbon Emissions: An Evidence from G7 Countries	
2	Saira Asif Naila Sadiq Syeda Fizza Abbas	Investigating the Weekend Effect on Returns of Stocks; A Comparison of Listed Firms and Index Returns of KMI-30	
3	Prof. Dr. Ashfaq Ahmad Muhammad Naveed Javed	Do the Uncertain Events affect the Performance of Pakistan Stock Exchange in 21st century?	
4	Prof. Dr. Ashfaq Ahmad Muhammad Faraz	Green Banking Practices in Developing Countries: Challenges and Prospects	
5	Hafiz Ahmed Ullah Dr. Ashfaq Ahmed Dr. Rizwan Qaiser Danish	The Factors That Influence User Adoption of E-Government Services: The Case of the Online Tax Filing and Payment System	

Session: 3 (Friday)		Time: 9:00 am – 10:30 am	Room # 44
Session Chair: Dr. Ishfaq Ahmed			
Sr #	Authors	Study Title	
1	Muhammad Asad Aziz	Impact of Globalization on Economic Complexity: An Analysis of South Asian countries	
2	Muhammad Tanveer Ikram	Behavioral factors affecting Investment Decisions in Pakistan Stock Exchange	
3	Ayesha Kiran Dr. Rizwan Qaiser Danish	The Study of Causes of Stress and Stress Management Strategies used by Students at University Level	
4	Dr. Muhammad Rizwan Shabbir Tanzila Samin Muhammad Adeel Safdar Shazia Hamayun Dr. Muhammad Awais	Investigating the Role of Self-Disclosure and Intention to Visit Pakistan: Examining the Mediating Role of E-Mavenism and Extraversion	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

5	Ruhma Asif	Impact of Representative Bias on Individual Investment Decision With Mediating Role of Risk Tolerance And Moderating Role of Locus of Control
---	------------	---

Session: 3 (Friday)		Time: 9:00 am – 10:30 am	Room # 45
Session Chair: Dr. Farah Naz			
Sr #	Authors	Study Title	
1	Arooba Chaudhary Rizwan Qaiser Danish	Effect of Knowledge Oriented Leadership on Employee Creativity: Mediating role of Knowledge Sharing and Moderating role of Creative Self-efficacy	
2	Madiha Bint-E-Riaz Dr. Rizwan Qureshi	Role Overload and Project's Performance: A Moderated Mediation Analysis	
3	Asra Jabbar Rizwan Qaiser Danish	Effects of Employee's Polychronic Orientation on Service Recovery Performance and Extra-role Customer Service: Moderating Role of Positive Affectivity	
4	Zia ur Rehman Shams	Effect of distributed Leadership on innovative work behavior through moderating role of knowledge sharing and mediating role of trust	
5	Mahira Tabassum Naveed Iqbal Chaudhry	Impact of Overconfidence Bias On Investment Performance: A Moderating And Mediating Role of Financial Literacy And Risk Propensity	

Session: 3 (Friday)		Time: 9:00 am – 10:30 am	Room # 06
Session Chair: Dr. Rizwan Qaiser Danish			
Sr #	Authors	Study Title	
1	Dr. Rizwan Qaiser Danish Prof. Dr. Muqqadas Rehman Anita Ali	Customers Intention to Adopt Digital Banking Services: Moderating Role of Perceived Risk in Banking Sector of Pakistan during COVID-19 Pandemic	
2	Abdul Majeed Rizwan Qaiser Danish	Examination of Buying Involvement as a Moderator in Explaining Consumption Values and Consumer's Environmental Concerns while Purchasing Organic Food Products in Pakistan	
3	Fatima Khalid	Impact of Instagram Usage on Conspicuous Consumption, with mediation of Social Comparison and FOMO and moderating role of Imitation of Influencers.	
4	Rizwan Qaiser Danish	The Effects of Market Orientation and Sales Manager Control on Salesperson Outcome Performance Through Parallel	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	Ibrar Mansoor Hafiz Fawad Ali	Mediation Approach: Empirical Evidence from Pharmaceuticals Industry
5	Saba Akbar Dr. Naveed Iqbal Ch	An assessment of Employees' Workplace Green Behaviors as a result of Green HRM Practices with Mediating Role of Ethical Leadership
6	Binish Mughal Aatqa Abdul Razzaq	Implementation Challenges of Harassment Law and its consequences for both Genders at workplace

Session: 3 (Friday)		Time: 9:00 am – 10:30 am	Room # 07
Session Chair: Mrs. Tahreem Sadiq			
Sr #	Authors	Study Title	
1	Fareeha Waseem Nimra Shaukat Syeda Fizza Abbas	Impact of Managerial Entrenchment and Firm Performance: Evidence From Kse-100 Index	
2	Prof. Dr. Rizwan Qaiser Danish Aniqa Gill	Impact of ethical leadership on work engagement Via perceived organizational politics; Moderating role of locus of control	
3	Dr. Rizwan Qaiser Danish Asvir Naveed	Relating Ambidextrous Leadership to Innovation Through Serial Mediation and Moderation: A Multi-Level Study of ICTs in Pakistan	
4	Asma Tahir Dr. Naveed Iqbal Chaudhry	Impact of Work Life Balance and Training & Development on Employee Performance through mediating role of Organizational Decision-Making Policies	
5	Areeba Nadeem	Influencer Marketing: The impact of Influencer's Source Credibility on Brand Awareness and Consumer's Responses with the moderating effect of Influencer Type	
6	Hafiza Aban Abid Qazi Prof. Dr. Mubbashir Munawar Khan Dr. Fouzia Hadi Ali	Configuration Of Value Co-Destruction Spaces In Digital Sharing Economy Platform: A Theoretical Framework	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Session: 3 (Friday)		Time: 9:00 am – 10:30 am	Lecture Theatre
Session Chair: Mrs. Rabia Saleem			
Sr #	Authors	Study Title	
1	Rizwan Qaiser Danish Aniqa Gill Muhammad Hasnain Ahmad Bilal Ali	Impact of abusive supervision on nurses' turnover intention and innovative behavior via work engagement: moderating role of person-job-fit	
2	Muhammad Aamir	Managerial Coaching and Workplace Well-being: Mediating roles of Compassion, Job Embeddedness and Psychological Contract Fulfillment	
3	Waqas Baig Dr. Rizwan Qaiser Danish Dr. Ishfaq Ahmad	Impacts of Organizational Climates on Employees Green behavior through mediating role of Green Employee Empowerment and Moderating role of Leadership	
4	Sharmeen	The influence of perceived knowledge self-efficacy on creative performance: mediating role of knowledge sharing behavior and moderating role of passion for work	
5	Shahid Saleem	The Impact of Telecommuting on Job Satisfaction with the mediating role of Work-family conflict, Perceived autonomy, Employee Engagement and Moderating role of Personality type	

Session: 4 (Friday)		Time: 10:30 am – 12:00 pm	Room # 42
Session Chair: Dr. Abdul Aziz Khan Niazi			
Sr #	Authors	Study Title	
1	Tehmina Fiaz Qazi Abdul Aziz Khan Niazi Ifra Aziz Khan Niazi	Wrongdoers Continued Making Mouths at Champions of Corporate Governance right since Emergence of Corporations: A Challenge for 21 <sup>st</sup> Century Researchers	
2	Tehmina Fiaz Qazi Abdul Aziz Khan Niazi Ifra Aziz Khan Niazi	Corporate Governance is Far Away to Rescue Whistle-Blowers: Grand Challenge of 21 <sup>st</sup> Century	
3	Tehmina Fiaz Qazi Abdul Aziz Khan Niazi Waleed Javeed Dr. Talat Islam	An Analysis of Socio-Demographic Factors of Conspicuous Buying of Luxury Automobiles in Pakistan: An Interpretive Structural Modeling	





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

4	Muhammad Shahzad Sardar Dr. Hafeez ur Rehman	Moderation of Institutional Quality in Determining Environmental Sustainability of Economic Growth and Transport Sector: Robust PQR Model in Global Perspective
5	Nadia Hanif Noman Arshed Zeeshan Rafiq Syeda Tabinda Rubab	Drivers of Entrepreneurial Intentions Among Business Students In Lahore, Pakistan
6	Binish Mughal	Impact of Generalized Workplace Harassment of Female Investigation Officers on Their Subjective Wellbeing

Session: 4 (Friday)		Time: 10:30 am – 12:00 pm	Room # 43
Session Chair: Mr. Sharjeel Saleem			
Sr #	Authors	Study Title	
1	Alina Ahmad Sharjeel Saleem	Explicating the effect of workplace ostracism on innovative work behavior via creative self-efficacy	
2	Ada Rehman Sharjeel Saleem Shazia Humayun	Future Time Perspective and Employability: The Mediating Role of Job Crafting	
3	Fariha Zubair	Establishing Diversity Climate: Role of Diversity Management Practices in Male Dominated Culture of Pakistan	
4	Reemsha Javid Dr. Fizza Rizvi	Emotional intelligence and psychological well-being affecting the problem solving skill of students in Pakistan, with the mediating role of study skills in students	
5	Dr. Muhammad Sheeraz Yaseen Aslam Khattak	Customer Citizenship Behavior and Consequences of Psychological Contract: The Role of Ruminations in Consumers	
6	Aden Rehman Naveed Iqbal	Impact of Green HRM to Increase Employee Performance: A Quantitative Study of Pakistan's Banking Sector	

Session: 4 (Friday)		Time: 10:30 am – 12:00 pm	Room # 44
Session Chair: Dr. Aamir Malik			
Sr #	Authors	Study Title	
1	Dr. Samar Rahi Tooba Gill Dr. Muhammad	The impact of technology and cultural factors on patient behavior to adopt e-health system with moderating role of e-health literacy	





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	Usman Dr. Talat Islam Fiza Mubbsher	
2	Zunaira Hanif Dr. Naveed Iqbal Chaudhry	Enterprise Risk Management practices and SME's performance through differentiation and cost-leadership strategies; moderating effect of Financial
3	Aneeza Khalid Dr. Naveed Iqbal Ch.	Business Angels and Entrepreneurial Intention of Management students in Pakistan
4	Habib ur Rehman Muhammad Awais Sarwar	Investigating the significance of strategic agility to organizational performance with mediating role of innovation capability and moderating role of organizational learning culture.
5	Dr. Rizwan Qaiser Danish Mohamamd Yousuf	How green human resource management relates to employees Innovative behavior (IB): A study of Manufacturing and Services Sector of Pakistani Firms
6	Noor Shafique Dr. Naveed Iqbal Chaudhry	Doing good in a risky way: The hierarchal model of social entrepreneurship with emotional intelligence, personality traits, SE intentions and SE investment risk-taking

Session: 4 (Friday)		Time: 10:30 am – 12:00 pm	Room # 45
Session Chair: Dr. Muhammad Fiaz			
Sr #	Authors	Study Title	
1	Sehar Zaheer Dr. Naveed Iqbal Chaudhry	Financial Literacy and Entrepreneurial Networking's moderating influence on the relationship between Financial Access and Firm Growth: An analysis of manufacturing industry of Pakistan	
2	Sonia Imran Dr. Naveed Iqbal Chaudhry	Reasons for tax avoidance and tax evasion of freelancers in Pakistan	
3	Sana Saeed Dr. Naveed Iqbal Chaudhary	Financial Literacy, Risk Tolerance with the Mediating role of Financial Self-Efficacy on predicting Financial Behavior of Employees in Pakistan.	
4	Sania Saeed Rizwan Qaiser Danish Waqas Baig	Students' Academic and Institutional Concerns in Crisis of COVID-19: Evidence from Pakistan	
5	Tabassum Rasool Dr. Saleha Javed Dr. Shrafat Ali Sair Mahreen Siddique	A Case of Construction Projects in Pakistan: Role of Authentic Leadership and Employee Engagement in the Relationship of Psychological Capital and Engineers' Performance	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	Dr. Muhammad Usman	
6	Minahil Pervaiz Dr. Naveed Iqbal Chaudhary	The impact of CSR and Green finance on sustainable financial performance with the mediating role of firm reputation

Session: 4 (Friday)		Time: 10:30 am – 12:00 pm	Room # 06
Session Chair: Dr. Bilal Ahmed			
Sr #	Authors	Study Title	
1	Zainab Naeem Dr. Naveed Iqbal Ch	Mediating effect of organization citizenship behavior and employee job satisfaction on relationship between work life balance and organizational performance	
2	Zulaikha Iqbal Dr. Naveed Iqbal	Impact Of Ethical Climate, Organization Justice and Organization Support on Workplace Deviant Behavior through Mediating Role of Employee Job Satisfaction	
3	Abeera Arif Dr. Naveed Iqbal Chaudhry	Failure To Enact Emotional Intelligence: Moderating Role of Ostracism And Abusive Supervision	
4	Armeen Bukhari Dr. Naveed Iqbal Chaudhry	Mediating role of Social Cognitive Process in the Relationship between Transformational Leadership and Innovative Work Behavior: Evidence from Educational Sector	
5	Aimun Khawaja Dr. Muhammad Bilal Ahmad	Stylo Shoes: A Case Study of Its Success Through Creativity, Innovation and Quality	
6	Musab Nawaz Naveed Iqbal Ch.	Effect Of Employee Perceive CSR, On Organizational Effective Commitment Through Mediating And Moderating Role In Banking Sector Of Pakistan	

Session: 4 (Friday)		Time: 10:30 am – 12:00 pm	Room # 07
Session Chair: Dr. Naveed Iqbal Chaudhry			
Sr #	Authors	Study Title	
1	Dr. Muhammad Shahid Hassan Mubasher Iqbal Dr. Noman Arshed	Services Sector and environment Quality – Moderating Role of Renewable Energy Consumption for Selected HDR Listed Countries	
2	Hooria Attique Dr. Naveed Iqbal	Mediating Role of Customer Satisfaction in the Relationship between Islamic Marketing Ethics and Customer Loyalty	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	Chaudhry	
3	Dr Farah Naz Dowa Shakeel	Twist of the Monday Effect: Evidence from Emerging Markets (EM) in the context of COVID Environment
4	Habib ur Rehman Muhammad Awais Sarwar	Investigating the significance of strategic agility to organizational performance with mediating role of innovation capability and moderating role of organizational learning culture.
5	Abdul Aziz Cham Dr. Shahid Khokhar Prof. Dr. Shahid Muhammed Tufail	Bridging gaps in employee engagement and customer satisfaction to usher rebirth of new era: A case of University of The Gambia.
6	Usman Ghani Hafiza Aban Abid Qazi Dr. Fouzia Hadi Ali	Building Trust Intention In Digital Sharing Platforms: Role of Firm Reputation

Session: 4 (Friday)		Time: 10:30 am – 12:00 pm	Room # Lecture Theatre
Session Chair: Dr. Kanwal & Mrs. Sadia Ahmed			
Sr #	Authors	Study Title	
1	Rimsha Baheer Dr. Kanwal Iqbal Khan	Unveiling the Cognition of Turnover Intention and Mental Health via Cyberbullying with the role of Dark Triad Personality Traits	
2	<b>Ayesha Shehzad</b> Kanwal Iqbal Khan	<b>Risk Perception under Modigliani-Miller Theorem: An Objective Judgment</b>	
3	Hafiza Iqra Ijaz Dr. Naveed Iqbal Chaudhry	Impact of green financing on climate change and environmental behavior change, mediating role of Govt fiscal policies on sustainable development in Pakistan	
4	Nasir Hussain	Perceived Job Insecurity and its effects on Organizational Commitment, Role of Psychological Capital in minimizing the effects	
5	Dr. Shrafat Ali Sair Kaleem Ullah Fajjar Ali Dr. Zia-ur-Rehman Rao Dr. Muhammad Usman	Organizational Agility Effects by Cloud-based Facilitation and Fosters Workplace Incivility Moderator Role of Leadership and Mediation Impact of Coworker Support, Alters Employee Behavior	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

6	Usman Sarwar Mubbsher Munawar Khan	Social Networks During Personal-Disconnect; An Investigation Into Pakistani Smes With Resource-Resilience-Performance Framework
---	--	---

**End of Session IV**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

# ABSTRACT PROCEEDINGS



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Impact of Financial Inclusion on Carbon Emissions: An Evidence from G7 Countries**

Farah Naz

Finance, Kinnaird College for Women

Areeba Butt

Kinnaird College for Women, Lahore

**ABSTRACT**

This study analyzes the impact of financial inclusion on CO<sub>2</sub> emissions using a sample of G7 countries during the period of 2004–2020. We used the Hoechle (2007) method to estimate the model, which yields Driscoll-Kraay standard errors for linear panel models that are robust to various types of cross-sectional dependency as well as heteroskedasticity consistency. Along with financial inclusion, we find that income, energy consumption, urbanization, FDI and higher energy consumption leading to higher economic growth appear to have led to higher emissions of CO<sub>2</sub> in the region. Whereas, greater trade openness has reduced CO<sub>2</sub> emissions. GDP and population, two of the control factors, had a negative effect on CO<sub>2</sub> emissions, while research and development activities promote carbon emissions. According to the empirical findings, there are currently no policies between expanding financial inclusion and reducing CO<sub>2</sub> emissions. Efforts on government level are required to coordinate the financial inclusion targets with environmental policies and achieving sustainable environmental goals.

**Keywords:** financial inclusion, CO<sub>2</sub> emissions, G7





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Twist of the Monday Effect: Evidence from Emerging Markets (EM) in the context of COVID Environment**

Dr Farah Naz

Kinnaird College for Women ,Lahore

Dowa Shakeel

Kinnaird College for Women, Lahore

**ABSTRACT**

The aim of this study is to analyze the existence of the Twist of the Monday effect in 24 Emerging Markets (EM) stock returns. Five American Countries (i.e., Brazil, Chile, Colombia, Mexico & Peru), eleven European Countries (i.e., Czech Republic, Egypt, Greece, Hungary, Kuwait, Poland, Qatar, Saudi Arabia, South Africa, and Turkey & United Arab Emirates) and eight Asian Countries have been selected to examine the twist of the Monday effect on these markets stock returns. This returns anomaly is investigated in the context of pre, amid and Post Covid Environment.

Secondary data approach has been opted. Daily trading data from major indices of 24 Emerging Market countries have been selected, using approximately 7 years daily closing stock prices from January, 2016 to December, 2022. The simple Ordinary Least Square regression and advanced models of GAARCH family have been used to identify the Twist of the Monday Effect i.e., GARCH (1, 1) (Bollerslev, 1986), TGARCH (Glosten, Jagannathan, & Runkle, 1993) and EGARCH models (Nelson & Cao, 1992).

Stock price movements are the potential interest of the market participants but the existence of the various anomalies which causes the variations from the standardized stated theories about stock prices gain attention from not only the market participants but also the academician. Contradiction to the Fama's efficient market hypothesis gave rise to a number of anomalies (i.e., calendar anomalies, fundamental and technical anomalies). Calendar anomalies depicting the difference in stock returns on various days of the week and months can be predicted based upon the historical data. Various factors are involved contributing to such anomalies like business cycles, change in economic environment, impact of previous week returns, volatility etc. Previous findings states that the Returns on Monday are significantly different and comes out to be lower as compared to other weekdays. It has also been found that the Monday being the first trading day has its returns correlated to the previous week closing returns. However, there are certain studies that states that the Monday returns fluctuate in a different manner in different countries. As soon as this effect become public it vanishes due to arbitrage effect.

The findings of this study would help the investors to appropriately act towards the calendar anomalies which contradict the weak form of Efficient Market Hypothesis and make them believe on abnormal returns. This study is also beneficial for the market participants in helping them to opt accorded investment strategy to gain higher or extra returns. This study hypothesize that the market returns become significantly different on Mondays. Using the data set of the time periods which faces the pandemic effect, would help make the analysis on different countries' market stock returns' variations on Mondays, the first trading day of the market. This will help out the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

investors and policy makers to enhance and manage their investment and other policy decisions in the wake to prospect an abnormal return.

Although a lot more study have been done on various anomalies which contradicts the efficient market theory. This study is to examine the twist of the Monday effect on all the Morgan Stanley Capital International (MSCI) Reported Emerging Market stock returns. Additionally, the effect is analyzed in the context of amid and Post COVID Environment. This will provide insight to the major changes in the calendar anomaly effect during the three different environments.

**Keywords:** Efficient Market Hypothesis (EMH), Monday Effect, Emerging Markets, Stock Price movements, COVID, calendar anomalies, January Effect, Day of the week effect





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **The Impact of Corporate Social Responsibility on Stock price crash Risk: Evidence from Pakistan**

### **ABSTRACT**

The Majority of Scientific literature identifies that Corporate Social Responsibility has a significance impact on Stock Price Crash Risk but their results are still in conclusive. On the other hand, prior literature does not explain a perfect link and the moderating effect of Firm Life Cycle between them. Specifically, the relationship between CSR and SPCR is untapped and the role of FLC has not been explored as an external variable in the context of Pakistan. In addition, comparison to other firms in developed nations; Pakistani firms still have weak internal and external corporate system. According to the view of this problem, we organize a study whose purpose is to investigate the impact of CSR on SPCR by exploring the external effect of FLC. Crash risk, defined as the conditional skewness of return distribution, captures asymmetry in risk and is important for investment decisions and risk management. In this present study, panel data was used to analyze non-financial firms (including both manufacturing & service sectors) listed on PSX by targeting Karachi Stock Exchange, take data of 60 non-financial firms from KSE-100 index. In this study, the data was collected over the period of 2008 to 2020 from the official website of PSX, SBP, SECP and from publically available Financial Reports. The theory of stakeholder was used. For hypothesis testing, we used the Generalized Method of Moments (GMM) & for the variables, the validated scale was used. Our finding shows that CSR helps to reduce SPCR & has an -ve impact on stock price crash risk. If socially responsible firms commit to a high standard of transparency and engage in less bad news hoarding, they would have lower crash risk. However, if managers engage in CSR to cover up bad news and divert shareholder scrutiny, CSR would be associated with higher crash risk. The findings support the notion that firms that play an active role in CSR abstain from bad news hoarding, lowering crash risk. This role of CSR is highly relevant when governance structures, such as board or institutional investor monitoring, are lacking. Our study's findings inspire owners and managers to make contributions more to CSR practices. Our research could help investors choose companies with high CSR practices when investing funds to offset the losses caused by stock price drops in their selfinterests. Therefore, our research is beneficial to investors who are concerned about managing their crash risk while investing in stocks. To attract investors & make their investments more reliable authorities may concentrate on continue to creating a good corporate system and policy ideas. In this study, we concentrate only on one emerging country and target only their KSE-100 index, it can be used to comparative analysis, for further study it can be done to uncover construct that's influencing the risk relating to SPCR.

**Keywords:** Corporate social responsibility, Stock price crash risk, Firm life cycle



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**An Investigation of the Effects of Balanced Scorecard (BSC) Implementation on Small and Medium Sized Enterprises (SMEs) Performance**

**ABSTRACT**

In evolving business environment of today, it is a big challenge for small and medium enterprises (SMEs) particularly working in developing countries to unremittingly adapt swift technological developments and improve their performance on broad frontiers. The balanced scorecard (BSC) is widely propagated as one of the strategic policy instruments for achieving the desired level of performance by aligning the performance measurement systems with the strategic objectives. This study is aimed to examine the effect of BSC implementation as a strategic instrument of performance measure on the financial performance of SMEs. For the said purpose, this study used four facets of BSC performance measures i.e., financial perspective, customer perspective, internal processes and learning growth perspective are used as independent variables. For data collection, 380 questionnaires containing closed ended questions were sent to chief financial officers and chief operating officers of SMEs which are selected through convenient sampling. The findings concluded that all the independent variables have a significant impact on the SMEs performance. More specifically, there is more significant relationship of financial measures, customer measures, internal business processes on SMEs performance improvement. The findings of this study indicated that financial perspective has less significant effect on SME's performance. Therefore, it can be demonstrated after analysis that now the performance of employees and organizations can indeed be continued to improve by trying to implement the BSC model in the organization; consequently, it is important to investigate the challenges that are presented by the implementation of the BSC (Balanced Scorecard) in small and medium-sized businesses.

Hence stating that the implementation of BSC is significant for vital operation of the business. It is advised that SMEs' managers include staff members in the process of developing their vision and purpose, as well as take note of their complaints about the challenges and issues they encounter at workplace. Doing future research on the relationship between BSC and SME performance using three case studies of small, medium, and large businesses, then identifying differences and their effects on businesses performance.

**Keywords:** BSC, Customers Perspective, Financial Perspective, Internal Perspective, Learning & Growth Perspectives and Small Medium Enterprises Performance



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Effect of Knowledge Oriented Leadership on Employee Creativity: Mediating role of Knowledge Sharing and Moderating role of Creative Self-efficacy**

Arooba Chaudhary

Rizwan Qaiser Danish

University of the Punjab, Lahore

**ABSTRACT**

Organizations are finding it difficult to achieve competitive advantage in modern era of highly dynamic business environment. Researchers and practitioners have identified employee creativity as a potential source to achieve competitive advantage. Therefore, this study makes an effort to find out how leaders can make their employees more creative. In this regard, this research aims to investigate the effect of knowledge oriented leadership on employee creativity through the mediation of knowledge sharing and moderation of creative self-efficacy. The data for this quantitative research were collected from 350 employees working in manufacturing organizations of Pakistan through online questionnaire based survey. Data were analyzed using descriptive statistics, correlation, linear and hierarchical regression.

The results have shown the significant impact of knowledge oriented leadership on employee creativity. The findings have also supported the mediation of knowledge sharing in relation between knowledge oriented leadership and employee creativity. Moreover, it is also observed that the creative self-efficacy moderates the relationship between knowledge sharing and employee creativity. The most important theoretical contribution of this research is that it contributes into the scant body of literature on relationship between knowledge oriented leadership and employee creativity. It also extends literature by exploring the mediation of knowledge sharing and moderation of creative self-efficacy in the association between knowledge oriented leadership and employee creativity. The significant practical implication of this research is that scholars and professionals will come to know how employee creativity can be enhanced. It enables administrators to implement the strategies that will help them to attain competitive advantage in the market through employee creativity. It will be one of the first studies to explore the relationship between knowledge oriented leadership and employee creativity through the mediation of knowledge sharing and moderation of creative self-efficacy.

**Keywords** Knowledge oriented leadership, knowledge sharing, employee creativity, creative self-efficacy, social exchange theory



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Role Overload and Project's Performance: A Moderated Mediation Analysis**

Madiha Bint-E-Riaz

Dr. Rizwan Qureshi

University of the Punjab, Lahore

**ABSTRACT**

The project team members frequently interact with numerous stakeholders who impose excessive and conflicting job requirements, given limited time and resources that require constant adaptation in response to the uncertain work demands. Job demands, such as role overload require persistent efforts from the employees which cost them psychologically that drains their emotional resources and causes burnout which ultimately deteriorates project performance. Drawing on the JD-R model, the current study aims to investigate the relationship between role overload and project performance. The study further attempts to investigate the mediating mechanism of burnout between the relationship of role overload and project performance. Furthermore, the study seeks to examine the moderating effect of self-efficacy between the relationship of role-overload and burnout. A quantitative cross sectional research design was used to test the proposed hypothesis. Convenience sampling was used to collect data from 200 healthcare employees working in the project based settings through online Google forms. The data were collected from the employees working for various projects in different public and private hospitals of Pakistan. A significant but positive association was found between role overload and project performance. Additionally, role overload was found to be significantly associated with burnout, however, no significant association was found between burnout and project performance. Additionally, results showed partial mediation of burnout between role overload and project performance. No significant results were found for the moderating effect of self-efficacy for the relationship of role overload and burnout.

**Keywords:**Project Management, Burnout, Job Demands, Self-Efficacy



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Effects of Employee's Polychronic Orientation on Service Recovery Performance and Extra-Role Customer Service: Moderating Role of Positive Affectivity**

Asra Jabbar

Rizwan Qaiser Danish

University of the Punjab, Lahore

**ABSTRACT**

The banking industry is known for its dynamic and competitive organizational structure, which requires polychronic employees to improve service quality and satisfy customers. However, to remain competitive, the banking industry must manage the level of employee engagement. This research seeks to present a comprehensive examination of the link between the polychronic orientation of employees on service recovery performance and extra-role customer service with the mediating role of work engagement in the banking sector of Pakistan. Further, the study will examine positive affectivity as a moderator between employees' polychronic orientation and work engagement. This study will collect data from the employees working in the banking sector of Pakistan through a questionnaire-based survey on convenience basis. This study proposes that employees with polychronic orientation are more likely to show work engagement and assist the customers by providing extra-role customer service and service recovery in the banking sector of Pakistan. Moreover, this study claims that positive affectivity will serve as an intervening construct and is likely to enhance the effect of employees' polychronic orientation on work engagement.

**Keywords:** polychronicity, service recovery, work engagement, positive affectivity.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Effect of distributed Leadership on Innovative work Behavior through Moderating role of Knowledge sharing and Mediating role of Trust**

Zia ur rehman shams

University of the Punjab, Lahore

**ABSTRACT**

This purpose of this research study into the effect of distributed leadership (DL) on innovative work behavior (IWB) and mediating role of Organization trust (OT) with moderating role of Knowledge Sharing (KS). The study background of this research is the Director of Education - Nangarhar Province, Jalalabad city Afghanistan. Moreover, the data collection was done from 203 responses received by respondents both administrative and academic staff employees of Education. However, result shows that distributed leadership has positive effect on innovative work behavior and four hypotheses are developed to see the effect of all the independent or dependent variables on the overall. While identification with somehow positive relationship as a mediator. On the other side, result also shows that moderating role of significant effect shows knowledge sharing relationship as a moderator.

**Keywords:** Distributed leadership, Innovative work behavior, Organizational trust, Knowledge sharing.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Perceived Job Insecurity and its Effects on Organizational Commitment Role of Psychological Capital in Minimizing the Effects**

Nasir Hussain

**ABSTRACT**

Job insecurity is a psychosocial risk that can present significant problems for organizational performance and employees' commitment towards organization. The purpose of the current research was to investigate the relationship between employee job insecurity and two types of organizational commitment: affective and continuance. Additionally, it was also tested that whether psychological capital can reduce the negative impacts of job insecurity towards organizational commitment. Using a survey questionnaire data was collected from the employees working for telecommunication companies in Pakistan, primary data was collected. Convenience-based sampling technique was used in order to collect data from different cities and companies and final dataset of completely filled questionnaire was 316. Using correlation, regression and Hayes, 2001 process moderation the results were extracted and it was found that job insecurity has negative impact on both affective and continuance organizational commitment. Further, the moderation of psychological capital was found to be statistically significant, but at moderate and low level. At high level of psychological capital the moderation was not found to be statistically significant. At low and moderate level of psychological capital the job insecurity increase affected negative impact on organization commitment. Only at high psychological capital the organizational commitment remained unchanged with the movement of job insecurity. These results are discussed in light of rising job insecurity and the need for psychosocial interventions to attenuate its adverse effects.

**Keywords:** Job Insecurity, Organizational Commitment, Affective Commitment, Continuance Commitment, Psychological Capital, Organizational Performance, Psychosocial Risk



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Globalization on Economic Complexity: An Analysis of South Asian countries**

**ABSTRACT**

Globalization is neither a simple economic phenomenon nor a traditional concept of internationalization. It is a process of integration, which enables an interlinking of social groups in almost all spheres, be it economic, social, religious, political, legal and cultural. The objective of this study is to measure the impact of globalization on Economic complexity index of South Asian countries (SAARC). The world economy is quickly gaining complexity as a result of globalization, becoming an ever-larger, increasingly interconnected, more heterogeneous and more dynamic system. Panel data collected for this study to measure the impact of globalization on Economic complexity index of south Asian countries for the period of 2001 to 2021. Panel unit root test used to measure the cointegration orders between variables by using augmented dickey fuller test. The ARDL results indicate that the index of globalization in all three dimensions of economic, social and political has a positive and significant effect on the index of economic complexity. Further, results suggest that the economic complexity is a key determinant of its ability to attract FDI flows and trade openness has a positive impact on economic complexity. Lastly, the study directed policies to increase the level of sophisticated knowledge-based production for sustainable growth.

**Keywords:** Globalization index, ECI, SAARC, FDI, GDP, trade openness, Labour force.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**How Green Human Resource Management Relates to Employees Innovative Behavior (IB):  
A Study of Manufacturing and Services Sector of Pakistani Firms**

Dr. Rizwan Qaiser Danish

Mohamamd Yousuf

University of the Punjab, Lahore, Pakistan

**ABSTRACT**

This study aims to determine the relationship between GHRM techniques and employees' innovative behavior. The study also proposed perceived organizational support as a mediator and green transformational leadership as conditional boundary to enhance employees' innovative behavior innovations. The research describes perceived organizational support and green transformational leadership as a new mechanism through which GHRM techniques influence employees' innovative behavior. Using a survey questionnaire, this study will collect data from various employees of services and manufacturing sectors. The study also aims to apply structural equation modeling to test the hypotheses. Based on ability-motivation-opportunity (AMO) theory and resource-based view theory (RBV), the study assumes that employee may feel perceived organizational support while comprehending their organizations involved in GHRM practices and this ultimately encourage them to be more innovative. In addition, the study also assumes that green transformational leadership can strengthen the association between GHRM and perceived organizational support.

**Keywords:** GHRM, perceived organizational support, green transformational leadership, Innovative behavior.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact Of Ethical Leadership On Work Engagement Via Perceived Organizational Politics;  
Moderating Role Of Locus Of Control**

Dr. Rizwan Qaiser Danish

University of the Punjab

Aniqa Gill

University of the Punjab

**ABSTRACT**

Around 88 percent of the managers across the globe reported that politics, an endemic phenomenon exists in their organizations and around 87 percent employees are not completely engaged at work. Considering these emergent issues, the purpose of this paper is to examine the effect of ethical leadership on work engagement, and such an association is shown to be mediated by perceived organizational politics, while locus of control moderates the association between perceived organizational politics and work engagement. This paper utilized a cross-sectional survey research design from 500 supervisor-supervisee dyads in both private and public service sectors of Lahore. Confirmatory factor analysis confirmed the dimensionality as well as reliability of the measurement model. Furthermore, the hypothesized associations were analyzed through two-staged structural equation modeling. Results revealed that perceived organizational politics mediates the association between ethical leadership and work engagement. In addition, locus of control was found to moderate the association between perceived organizational politics and work engagement. This paper did not establish any causal inferences in between the constructs, therefore explanation pertinent to findings must be provided with great caution. This paper suggests practical inferences through mitigation of damaging effects of perceived organizational politics, a prevailing issue with deleterious outcomes and yet not addressed in Asian societies organizations. It emphasizes on organizations to recruit and train individuals with ethical behaviors that may help avoid employees' negative perceptions, resulting in increased employees' work engagement. This study extends the existent literature through examining perceived organizational politics (POP) as a mediating mechanism between ethical leadership and work engagement. It sheds light on the personality, politics as a psychological state with its outcomes, along with the cultural dimension for the first time in literature and explains the phenomena through which negative effects of (POP) are buffered by ethical leadership while in presence of individual differences that ameliorate or deteriorate the organizational outcomes. The theoretical framework is progressed through social learning theory and COR theory.

**Keywords:** Ethical leadership (EL), Perceived-organizational politics (POP), Work engagement (WE), Locus of control (LOC)



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Importance of Corporate Governance for Environmental Disclosure: Evidence from Pakistan Stock Exchange**

Dr. Muhammad Siddique Malik

University of the Punjab, Gujranwala Campus.

Kamran Ali

University of the Punjab, Gujranwala Campus.

Muhammad Amir Chaudhry

University of the Punjab, Gujranwala Campus.

Aqsa Siddique

University of the Punjab, Gujranwala campus.

**ABSTRACT**

In today's world, it is crucial for industries that do not care about their environmental disclosure, and they can face problems in the success of the business because financial success is not a single determinant of business success; in the modern era, governance demands society safety too. Therefore, the current study's purpose is to investigate the impact of corporate governance, i.e., the board size, board independence, CEO duality, managerial ownership, institutional ownership, and foreign ownership on environmental disclosure. This study used the data of the top 30 indexing firms of the Pakistan stock exchange and the information gathered through content analysis from annual reports from 2016 to 2020. Moreover, penal data analysis was done through the statistical technique “Ordinary Least Square” (fixed and random model) to answer the study hypotheses by using Eviews v10. Findings indicated that board structure has a positive and significant relation with environmental disclosure. In contrast, board independency relationship with the environment is negative and significant, whereas CEO duality, managerial ownership and institutional ownership have a positive but insignificant relationship, as foreign ownership relates to environmental disclosure positively and significantly. Theoretically, we used different theories, i.e., agency theory, legitimacy theory, and stakeholder theory, to link corporate governance to environmental disclosure decisions. The findings of this study also suggest that policymakers should consider ways to enhance board structure sketchily to provide more environmental disclosure activities. Implications for management include adopting a common environmental strategy. Additionally, this research inspires diverse stakeholders and activist groups to demand environmental disclosure aggressively.

**Keywords:** Corporate governance, Environmental disclosure, Penal data analysis, Pakistan stock exchange.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Assessing the Antecedents to Responsible Financial Management Behavior: An Application of Structural Equation Modeling**

Dr. Muhammad Siddique Malik

University of the Punjab, Gujranwala Campus.

Kamran Ali

University of the Punjab, Gujranwala Campus.

Muhammad Amir Chaudhry

University of the Punjab, Gujranwala Campus.

Faiqa Masood

University of the Punjab, Gujranwala campus.

**ABSTRACT**

Responsible financial management behavior is fundamental to spending healthy financial lifestyle. That is why this study aims to investigate determinants of financial management behavior by considering financial management, locus of control and help-seeking along with mediating role of financial attitude. For this purpose, we collected data from 271 white color employees working in Pakistan's service sector. Two statistical software are used to analyze the collected data; first, we perform the initial analysis to screen and clear the data through SPSS, while the model fitness and hypotheses testing are made through SEM using AMOS. The study's findings indicated that financial knowledge and help-seeking behavior positively affect financial management behavior, while the impact of locus of control is insignificant. Moreover, financial attitude significantly mediates between determinants and financial management behavior. Therefore, this study is beneficial for young adults to improve their financial standard of living. Based on the theory of planned behavior and social learning, the current study contributes to the literature and provides guidelines to individuals, experts, managers and policymakers to handle growing financial knowledge, ultimately leading to the responsible financial management of resources. In order to make sure the appropriate financial decisions, priority-based spending plans and adequate financial family security.

**Keywords:** Financial management behavior, financial knowledge, financial attitude, locus of control, help-seeking, structural equation modeling.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Effect of Transformational Leadership on Life Satisfaction and Job Satisfaction Through Mediating Role of Psychological Capital**

Zaryab Jamil

**ABSTRACT**

The purpose of this study is to examine the association between transformational leadership and psychological capital. Present study also examines the direct and indirect relationship between transformational leadership and life satisfaction. It also examines the relationship between transformational leadership and job satisfaction through mediating role of psychological capital. This quantitative study has used convenience sampling technique. Data has been collected through self-administered questionnaires and Google forms, from 389 employees working in different organizations of Lahore, Pakistan. Results show a positive association of transformational leadership with psychological capital, life satisfaction, and job satisfaction. Results also reveal that psychological capital mediates the relationship between transformational leadership and life satisfaction. Psychological capital also mediates the relationship between transformational leadership and job satisfaction of employees. For this study, data has been collected only from one major city in Pakistan. Data has been collected from organizations varying in structures. This study has used a non-random sampling method. This study highlights the importance of transformational leadership style and PsyCap that positively contributes to satisfaction levels among employees that will eventually lead to improved performance of employees and organizational success.

**Keywords:** Transformational leadership, Psychological capital, Life satisfaction, Job satisfaction



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Board Independence and Firm Performance: The Role of Board Gender Diversity in Pakistan**

Ch. Muhammad Shafique

University of Veterinary and Animal Sciences, Lahore

Dr. Raheel Safdar,

University of Veterinary and Animal Sciences, Lahore

**ABSTRACT**

This study determines the influence of board independence and board gender diversity on firm performance in Pakistan. In this study, the research paradigm is positivism, and the research method is deductive. Secondary data from published financial statement used to acquire the information. Multiple regression analysis in STATA was used to analyze the relationship between board independence, board gender diversity and firm performance in firms listed on Pakistan Stock Exchange from 2011 to 2021 data. The population consists of 550+ firms (36 sectors), and the sample was 10 non-financial sectors by market capitalization which is 173 companies. Research findings were presented in form of graphs, tables, mean, frequencies and charts. The regression analysis's findings show that independent and female directors, respectively, have a significant and detrimental impact on a company's success. The interaction term between board independence and gender diversity, however, is statistically negligible. Overall, managers must take into account that board independence and gender diversity may not interact to improve the success of their companies.

**Keywords:** Board Independence; Board gender diversity; firm performance; Pakistani public listed companies





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Influence of Green Human Resource Management Practices on Organizational Sustainability and Performance in the Service Industry of Lahore: Mediating Role of Employee Commitment Towards Environment**

**ABSTRACT**

In response to the existing environmental issues organizations are more concerned about “greening” their Human Resource management. The purpose of this study is to check the influence of Green Human Resource Management practices (Green recruitment and selection, green training and development, and green compensation and rewards) on Organizational Sustainability and Organizational Performance and mediating role of Employee Commitment toward the environment in the service industry of Lahore. The hypothesis of the research will be tested by performing quantitative research using the questionnaires as a tool of research. The Data would be collected from 250-300 respondents. The analysis of the study would be based on various tests on SPSS and AMOS. This type of study has not been performed in the context of the service sector in Pakistan and specifically Lahore, the existing studies are limited and sector-specific. It would be a valuable addition to the Literature on green HRM and how it is beneficial for the environment, organizational sustainability, and organizational performance.

**Keywords:** Green Human Resource Management, Organizational Sustainability, Organizational performance, Employee Commitment.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Socio Economic Impact of Punjab Rozgar Scheme on Smes in Punjab**

Javed Iqbal

University of Veterinary and Animal Sciences (UVAS) Lahore

#### **ABSTRACT**

The small and medium – sized enterprises (SMEs) play an important role on the growth the economies of the developing countries. In Pakistan, SMEs hold 90% of the total businesses of the country, utilized 80% non-rural work constraints; and their contribution in the yearly GDP is up to 40%, roughly it has proportion of 30% in Pakistan all exports. SMEs are also known as major source of employment generation for various countries. SMEs are non- auxiliary, autonomous firms which employ less than 250 number of workers in Pakistan or having paid up capital up to Rs. 25 million & sales up to Rs. 250 million per annum. SMEs are spread in all areas of Pakistan with a noteworthy fixation in Punjab 65.4%. The contribution of Baluchistan in the Nation’s SME part happens to be the little 2.3%, while those of Sindh and Khyber Pakhtunkhwa are 18% and 14.3%, separately. Both primary and secondary data were used for this study. Primary data were gathered through the administration of questionnaire from 30 SMEs. Using non random sampling techniques and also NVIVO to analysis the data gathered from SMEs. The Public guarantee scheme is aimed to develop entrepreneurial culture in the province through provision of access to credit to potential startups and existing businesses that will create employment opportunities in industrial / service & trading sector and ultimately living standard of the people/families will be improved. The study focuses on the impact of Punjab Rozgar Scheme on SMEs in Punjab. It also discusses the importance of public guarantee schemes to uplift the SMEs and challenges faced by the SMEs.

**Keyword:** SMEs, Punjab Rozgar, Socio economic, impact, public guarantee schemes.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Analysis of the Factors Affecting the Consumer’s Continuous Intentions to Use Online Food Delivery Apps (OFDA) in Pakistan.a Trust Transfer Theory Perspective**

Aqsa Amin

University of Veterinary and Animal Sciences (UVAS) Lahore

**ABSTRACT**

The role of digital technology has transformed the food delivery process and reshaped the market. The purpose of this study is to investigate how trust in OFDAs transfer to trust in restaurants and how different trust factors influence customers’ continuous intentions towards OFDA in the light of Trust Transfer Theory. A quantitative study was conducted with 200 OFDA users in Pakistan through online structured questionnaire survey. The results were tested through structural equation modeling (SEM). The results showed that the trust in OFDAs positively influence the trust in restaurant and then influence the consumers’ continuous purchase intentions from OFDAs and also the variables like quality control, OFDA satisfaction and social influence are the factors that develop consumers’ trust in OFDAs. This research will make theoretical contribution as it is developing a trust transfer relationship and how it leads to consumers’ continuous intention to use OFDAs. The findings will provide direction for online food delivery service providers that how they can build their consumers’ trust on their services and can succeed in the market.

**Keywords:**continuous intention, Online food delivery apps, Trust in OFDAPs, OFDA satisfaction, Trust transfer Theory.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Financial Literacy for Employees Leads to Safer Workplace and Efficacious Productivity**

Amna Khan

University of Veterinary and Animal Sciences (UVAS) Lahore

**ABSTRACT**

The objective of conducting this literature review is to analyze the factors that shows effect and barriers in the existing models regarding the financial literacy, workplace safety and organization's productivity and to study the extent to which Organizational Health and Safety (OHS) affects the productive environment at the workplace. For this purpose, a systematic literature review is performed by thoroughly reviewing 50 articles from Scopus and Google Scholar from the period of 22 years (2001-2022) in the context of more than 5 countries including the USA, Spain, China, Italy, Turkiye and Iran. Results showed that financial literacy has a direct and positive influence on safety management, organization's financial performance and productive environment. This paper concludes with the ground of some direct and indirect antecedents who showed prominent effects on financial literacy including education, work culture and accident rate etc. This study would be helpful for the future researchers to study the relationship among confidence in financial matters and Organizational Health and Safety Management System (OHSMS) regarding the satisfaction level that employees gain through financial literacy. Implications of the results generated are helpful for the developing organizations wanting to imply OHS and Financial literacy programs.

**Keywords:** Financial Literacy, Workplace Safety, OHS, Financial Satisfaction, Organizational Health and Safety Management System (OHSMS)



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Antecedents and Consequences of Green Marketing; Consumer Purchase Intention**

Hajra Dilawar

Syed Abdul

University of Veterinary and Animal Sciences (UVAS) Lahore

**ABSTRACT**

This study aims to examine the impact of frugality, motivation to save, altruistic value and consumer skepticism towards Green Purchase Intention in Pakistan, on the basis of Theory of Planned Behavior. A quantitative study will be conducted for this purpose. Universities in Lahore, Pakistan will be chosen as the sampling frame. Undergraduate and postgraduate students are the target population. 200 questionnaires will be distributed in total. The results will be tested through Structural Equation Modeling (SEM). The results are expected to demonstrate a substantial association between the components of the consumer skepticism and green purchase intention. The main contribution of this study will be to highlight the antecedents and consequences of green products and previous purchase experiences in order to analyze the influence over Green purchase intention, which was an obvious gap in the previous studies. The findings will assist green merchants in better understanding green purchase intentions and developing innovative tactics to increase green purchase sales.

**Keywords:** Consumer skepticism, motivation to save, Green Purchase intention, Altruistic value, Frugality



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Employees Training on Job Performance in Commercial Banks of Pakistan**

Muhammad Nadeem Sadiq

University of the Punjab Lahore

**ABSTRACT**

Employees training is considered as an important factor for improving the performance of commercial banks and any other financial institutions. Commercial banks just like any other financial institutions, accounts for the large percentage of the world's lending sector that plays an important role in the economic development of a country and the world's economy at large. Banking sector of Pakistan is also playing a leading role in all the sectors of the economy. However, there is still need to increase the performance of the commercial banks by improving the productivity of the employees through training. In doing so, this study investigates the Impact of Employees Training on the Job Performance of the employees of Commercial Banks in Pakistan. For this purpose, present study collected the data from 100 employees of five major private commercial banks of Pakistan and used structural equation modeling correlation. The empirical result reveals that employees training has a positive impact on job performance of the employees. Furthermore, the study is helpful for higher management of banking sector to devise their personal policy attaining higher performance.

**Keywords:** Employees Training, Job Performance, Employee perceived performance, Human Resource Practices.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Masstige and Brand Equity of Apparels**

#### **ABSTRACT**

For many years, some brands were only considered as premium brands, accessible by niche market segments. Products of these brands had elements of rarity and uniqueness, or we can say exclusivity. Recent studies have questioned the possession of these elements by only some luxury products and discovered that for growth of such brands, they must produce for masses. Masstige is a marketing term, introduced by Michael J. Silverstein and Neil Fiske in report 'Luxury for the masses' in Harvard Business Review (Michael J Silverstein 2003). it is combination of "Mass and Prestige". Premium brands were only producing expensive products, then they decided to focus masses because many people wanted to buy luxury items in reasonable prices carrying same prestige. This practice is commonly used by brands for positioning of luxury and premium brands for masses by equally retaining the faith of premium customers. This paper articulates masstige for apparels by luxury brands like J., Sana Safina's etc. about which people are cognizant, ready to pay for their satisfaction and esteem. These brands have now targeted by making new categories in relatively lower prices, affordable by masses. Marketers want to target emerging markets, willing to buy premium apparels between average to high prices, by working on marketing mix. Globalization is also a primary reason behind need and emergence of masstige, particularly important for penetration in foreign markets for medium and large apparel brands. Entry of masstige marketing has minimized the distance between luxury and non-luxury apparel brands. Apparel brands use this strategy to adjust with middle-income and maintaining their premium looks, by effectively combining positioning with appeal without effecting the brand image. This strategy has turned some apparel brands into larger firms in terms of revenue. Buying of apparels from prestigious brand has increased due to increased level of knowledge and self-esteem. New apparel brand positioning strategies mostly make combination of high prestige with affordable prices in order to attract middle-class. These strategies are not same as used by some luxury brands, who maintain a strict difference between high prestige and price reduction to preserve their brand uniqueness. This relation between brand prestige and brand equity (what customer perceives about brand) can work for firms as they have less marketing expense which in return reduces costs. Brand equity is made up of many things like brand prestige, knowledge, excitement, loyalty, and awareness. Marketers now, know that quality is not only factor for price determination of a product, but marketing of a product also has important role especially concept of brand equity. With increased levels of brand equity comes increased level of customer loyalty, and premium apparel brands attract more than average value, as they offer quality with some additional features of services, variety with trends. This study is based on exploratory research design, sample are people buying from premium apparel brands, scale used is developed by Paul, j. (2015) and that is 'Masstige Mean Score Scale' (MMSS) measuring the Masstige on Brand equity with 'Masstige mean Index' (MMI). A. Kumar (2018) and Paul j. has worked a lot on masstige but this is still less known, emerging and creating gaps for future researchers.

**Keywords:** Brand equity, Mass prestige, Masstige, Masstige mean index





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Effect of Workplace Incivility on Workplace Deviance and Team Innovation: Mediating role of Perception of Politics**

Dr. Shazia Nauman

Riphah International University Lahore

Asma Tariq

Riphah International University Lahore,

Muhammad Saleem

Riphah International University Lahore,

**ABSTRACT**

Workplace incivility has been a prevalent and critical issue in any workplace. Workplace incivility has a bad impact on employees in the project context. Workplace incivility has negatively influenced work and project outcomes in the last few decades. Furthermore, workplace incivility leads to underlying negative mechanisms which also hamper team innovation and enhance workplace deviance. Employing conversation of resources theory, this study investigates the relationship between workplace incivility and (a) workplace deviance, (b) team innovation. Moreover, this study also investigates the underlying mechanism of perceived organizational politics between workplace incivility and (a) workplace deviance, (b) team innovation. Two wave data has been collected from 200 employees working on Pakistan's construction and industrial projects. SPSS 21 was used to analyze descriptive statistics, Cronbach alpha, correlation, and regression analysis while Hayes PROCESS macro (Model 4) was used to test mediation.

The results show that workplace incivility is positively and significantly related to workplace deviance and team innovation in the project context. The result also shows that perceived organizational politics is mediating between workplace incivility and a) workplace deviance and b) team innovation This study proposed that the human resource departments and project managers should define proper code of conduct, organizational ethics, and other rules and regulation to decrease workplace incivility and perceived organizational politics. There should be strict rules on uncivil behavior and misbehaving attitudes. A respectable environment is very necessary for all of the employees in the organization. With unethical and incivility create different conflicts in employees that not only lead to decreasing employees' job satisfaction but also decrease their performance in the organization. Additionally, managers and human resource heads should design training programs to enhance the emotional intelligence of their human power. They can also model and reward good behavior, should hire for civility, teach civility, create group norms, and penalize bad behavior.

**Keywords:** Workplace Incivility, Perceived Organizational Politics, Workplace Deviance, Team Innovation





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Relating Ambidextrous Leadership to Innovation Through Serial Mediation and Moderation: A Multi-Level Study of ICTs in Pakistan**

Dr. Rizwan Qaiser Danish

University of the Punjab, Lahore, Pakistan

Asvir Naveed

University of the Punjab, Lahore, Pakistan

**ABSTRACT**

Leaders' opening and closing behaviors are assumed to foster high levels of employee exploration and exploitation behaviors, hence motivating employees' innovative performance. In the present research the ambidexterity theory of leadership for innovation, has been applied to find mechanism through which ambidextrous leadership predicts innovation at multi-level. The opening and closing behavior have been measured using the self-administered questionnaire through survey. The sector that was targeted in the present study is ICT, as this sector shows high level of innovation in its operations and processes. But this study is confined to software houses and telecommunication companies from where the data was collected from 413 employees working at managerial level. Organizational innovative climate was used as a boundary condition to deepen the understanding of relationship between ambidextrous leadership and multi-level innovation. The research has provided useful insights into the mediating role that organizational social capital (OSC), team reflexivity and explorative and exploitative behavior play on the relationship between ambidextrous leadership and multi-level innovation. Limitations and future guidelines have been discussed.

**Keywords:** ambidexterity theory of leadership, innovation at multi-level, software houses and telecommunication companies.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Factors that Influence User Adoption of E-Government Services: The Case of the Online Tax Filing and Payment System**

Hafiz Ahmed Ullah

Dr. Ashfaq Ahmed

Dr. Rizwan Qaiser Danish

University of the Punjab, Lahore

**ABSTRACT**

The factors that influence public acceptability of e-Government services are identified in this article. In Pakistan, the online tax filing and payment system is a well-known e-Government service. This study intends to investigate the causal links between the variables of acceptance behaviour for the online tax filing and payment system using a theoretical model based on the theory of planned behaviour. The article reports on a survey that collected 200 usable responses. The findings show that the suggested model well explained the variation in behavioural intention. In addition, the important determinants of user acceptance of the online tax filing and payment system are external influences, interpersonal influence, self-efficacy, and facilitating condition. This study help the FBR develop a more efficient scheme for increasing the use of electronic filing among Pakistani taxpayers. Finally, Limits and future instructions are provided at the conclusion of the article.

**KeyWords:** Electronic government; e-Government services; Information technology acceptance; Theory of planned behavior; Online tax filing and payment system



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Abusive Supervision on Nurses' Turnover Intention and Innovative Behavior Via Work Engagement: Moderating Role of Person-Job-Fit**

Rizwan Qaiser Danish

University of the Punjab, Lahore

Aniqa Gill

University of the Punjab, Lahore

Muhammad Hasnain

University of the Punjab, Lahore

Ahmad Bilal Ali

**ABSTRACT**

Employees all over the world are facing high abusive supervision at low work engagement, which has increased their intention to leave their jobs and reduced their innovative behavior. Highlighting these prevailing issues, the goal of this research paper is to examine the relationships between abusive supervision, work engagement, innovative behavior, and turnover intention while visualizing person-job-fit in a moderating role.

This paper employed a cross-sectional study with survey as a research design to collect data from 500 nurses (in total) employed in public and private hospitals in Lahore. The study used SPSS and Structural Equation Modeling (SEM) in the AMOS v21 technique for analysis.

Results revealed that abusive supervision has indirect detrimental impacts on turnover intention and innovative behavior through reduced work engagement. Person-job-fit mitigates these damaging effects by weakening the negative relationship between work engagement and turnover intention and strengthening the positive relationship between work engagement and innovative behavior at workplace.

This study is a primary effort that introduces person-job-fit (PJF) as a remedy to the occurrence of abusive supervision in developing countries like Pakistan with high power distance. The conceptual framework is established on the basis of conservation of resource theory of stress, equity theory and field theory.

**Keywords:** Abusive Supervision, Work engagement, Innovative behavior, Turnover intention, Person-job-fit, Power distance



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Examination of Buying Involvement as a Moderator in Explaining Consumption Values and Consumer’s Environmental Concerns while Purchasing Organic Food Products in Pakistan**

Abdul Majeed

University of the Punjab, Lahore

Rizwan Qaiser Danish

University of the Punjab, Lahore

**ABSTRACT**

Woven upon the theory of consumption values, the study in hand examined individual consumption values deriving environmental concerns among consumers of organic food products living in a low-middle-income country, Pakistan. Also, this study investigating the moderating effect of consumer’s buying involvement the association between multifaceted consumption values and environmental concerns. Data were collected from 77 organic farmer markets or dedicated platforms for farmers (fruit and vegetable markets, model bazars) held at different locations in the Punjab province of Pakistan using structured questionnaires and convenience sampling technique. A total of 1634 organic food products consumers volunteered to take part in this survey. The latest versions of SPSS and AMOS were used to analyze the data using a covariance-based structural equation modelling technique. The CB-SEM revealed significant positive relationships between functional value (quality and price), conditional value, emotional value, epistemic value, and environmental concerns. The epistemic value was found as the most influential indicator of environmental concerns. Relating to moderator, buying involvement significantly moderated the association between individual consumption values and environmental concerns. The findings of the study are pragmatic for practitioners and managers to enhance consumption of organic food products in the mainstream market. To sum-up, this effort is indeed a milestone towards responsible consumption and production (SDGs-12) and resource conservation is beneficial for people's health and for sustainable environment.

**Keywords:** Individuals Consumption Values, Environmental Concerns, Consumer’s Buying Involvement, Organic Food Products, Covariance-Based Structural Equation Modeling (CB-SEM)



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Examination of Peer Influence as a Moderator and Predictor an Explaining Green Purchase Behavior in a Developing Country**

Abdul Rasheed Ghumman  
University of the Punjab, Lahore  
Abdul Majeed  
University of the Punjab, Lahore

**ABSTRACT**

This study examines the factors affecting consumers' purchasing behavior in respect of green products in a developing nation. Additionally, it ascertains the moderating effect of peer influence on this relationship. A questionnaire was administered to a group of 400 respondents through the convenience sampling method. Data were analyzed via the Partial Least Square-Structural Equation Modelling (PLS-SEM) approach to examine the posited research hypotheses. The PLS-SEM approach revealed that perceived deterioration of environmental problems was the strongest predictor of consumers' purchasing behavior in respect of green products in a developing nation. This was followed by environmental concern, and then by perceived environmental responsibility, and environmental self-image. Furthermore, the moderating effects varied significantly across peer influence groups. Producers and marketing managers should overtly demonstrate their sensitivity to the need to care for the environment. This requires them to arouse positive environmental awareness among consumers about the deterioration of environmental problems. The originality of the paper is its investigation of peer influence as the moderator and predictor in the proposed theoretical framework, something that has been overlooked in prior studies. The results underpin new and extensive inputs into marketing theory, and enlarge the emergent literature related to consumer green purchasing behavior in a developing nation. Directions for future research are offered.

**Keywords:** Green Products, Consumer Behavior, Peer Influence, Perceived Deterioration, Environmental Concern, Acquisition Transaction Utility Theory



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Managerial Coaching and Workplace Well-being: Mediating roles of Compassion, Job Embeddedness and Psychological Contract Fulfillment**

Muhammad Aamir

University of the Punjab Lahore

**ABSTRACT**

This study aims to examine the effect of managerial coaching on nurses well-being through mediation of compassion at work, job embeddedness and psychological contract fulfillment.

The author collected data using questionnaire-based survey from 420 nurses, employed in various public and private hospitals. The study used structural equation modeling to confirm mediation of compassion at work, job embeddedness and psychological contract fulfillment between managerial coaching and well-being relationship. This study used cross sectional design which raises a question on causality. The study findings suggest the organizations to consider managerial coaching to shape employee's workplace behaviors. To best of our knowledge, this is the first study that examines the mediating roles of compassion at work, job embeddedness and psychological contract fulfillment.

**Keywords:** Managerial coaching, Workplace well-being, compassion at work, job embeddedness, psychological contract fulfillment





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Instagram Usage on Conspicuous Consumption, with mediation of Social Comparison and FOMO and moderating role of Imitation of Influencers.**

Fatima Khalid

University of the Punjab Lahore

**ABSTRACT**

Expanding usage of social media has connected more than half of the world allowing them to express themselves through Instagram. Social media apps have facilitated people to compare themselves with influencers and simultaneously remain updated with the world leading to factors like fear of missing out which has changed the consumption practices. Recently, individuals are indulging in conspicuous consumption and displays of products and experiences on social media. Previous studies have examined conspicuous consumption, but the influence of factors such as fear of missing out (FOMO) and social comparison with influencers has received little attention and are under-researched. This paper aims to examine the associations between Instagram usage and conspicuous consumption among Pakistani social media users. Furthermore, the mediating role of social comparison with influencers and FOMO, and the moderating effect of imitation of influencers were also examined. A conceptual framework is developed and tested using Statistical Package for Social Sciences to examine the results of questionnaire distributed to 640 Instagram media users in different public and private universities of Pakistan. Hypothesized relationships are tested through regression analysis. Findings confirmed a positive relationship between Instagram usage and conspicuous consumption. It was also observed that Instagram usage had a significant impact on social comparison with influencers and FOMO. Moreover, both FOMO and social comparison with influencers partially mediated the relationship between Instagram usage and conspicuous consumption. However, imitation of influencers did not moderate the relationship between social comparison with influencers, conspicuous consumption and FOMO and conspicuous consumption. The analysis results highlight the critical role of Instagram Usage in conspicuous consumption in context of social media. The study presents a broader and novel perspective in examining the role of under-researched topics, FOMO, and social comparison of influencers bringing critical information for marketers and influencers. Theoretical, practical implications have been discussed for marketing strategies and advertisement management along with future limitations.

**Keywords:** FOMO, Influencers, Conspicuous Consumption, Imitation of Influencers



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Entrepreneurial Intention and Financial Knowledge on Investment Behavior with  
The Mediating Role of Cultural Value**

Rabia Rana Zulqarnain

University of the Punjab Lahore

**ABSTRACT**

The determination of this study was to propose and examine the relation of entrepreneurial intention and financial knowledge with cultural values that creates an investment behavior in an individual. Furthermore, another purpose of this research was to test the influence of cultural values which mediates entrepreneurial intention and financial knowledge with an investment behavior. In this study, a quantitative approach was used. For this, an online, questionnaire was designed. Total 380 questionnaires had been distributed among the targeted audience to analyze the relationships among four chosen constructs. After collecting the data from all the audience to find out the results. The SPSS-22 software was used to identify the results. This study helped us to determine that how the do results supported a research study. What is the impact of entrepreneurial intention, financial knowledge on investment behavior? It was also remained under observation that how cultural values mediates? There is a need to find out such relations that encourage investment behavior. This study proved helpful to cover the research gap by focusing on youngster whom wanted to invest.

**Keywords** - Entrepreneurship Intention, Financial Knowledge, Cultural Values, and Investment Behavior.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impacts of Organizational Climates on Employees Green behavior through Mediating Role of Green Employee Empowerment and Moderating role of Leadership**

Waqas Baig,

Dr. Rizwan Qaiser Danish,

Dr. Ishfaq Ahmad

**ABSTRACT**

This study intends to investigate the impact of organizational climates on the employee's green behavior through the mediating role of green employee empowerment and moderating role of ethical leadership in building the pro-environmental work behavior.- Data collection is done through the questionnaire from the 422 managers in the different hospitality sectors of Pakistan. SEM was used to estimate the boundary conditions and mechanisms between the organizational climate and employee green behavior. SEM fully supported the partial mediating role of the green employee empowerment in the influence of the organizational climates on employees' green behavior. Further, we found that ethical leadership can expand the indirect impact of organizational climate on green employee behavior and empowerment. Longitudinal study is the research limitation. The study's finding has implications in excavating the understanding effect of organizational climates in the betterment of employees' behavior in the organization. This is the first study to examine the mediating role of green employee empowerment and the moderating effect of ethical leadership in determining the relationship between organizational climates and employee green behavior using multi-source data from the hospitality sector.

**Keywords:** Ethical leadership, Green employee empowerment, Ethical climate, Green psychological climate, Employee green behavior.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Influence of Perceived Knowledge Self-Efficacy on Creative Performance: Mediating Role of Knowledge Sharing Behavior and Moderating Role of Passion for Work**

Sharmeen

University of the Punjab, Lahore

**ABSTRACT**

This study aims to investigate the effect of perceived knowledge self-efficacy on knowledge sharing behavior, creative performance and passion for work as moderating variable. This study opted survey research strategy in which data was collected on questionnaire through convenience sampling technique and cross sectional time horizon. Total number of 250 questionnaires were distributed to the workers working in different software houses in Lahore, Pakistan. 230 responses were considered for the final analysis. By using SPSS, data was screened and then descriptive statistics, reliability analysis and correlation analysis were used to examine the relationship between perceived knowledge self-efficacy, knowledge sharing behavior, creative performance and passion for work. The mediating effect of knowledge sharing behavior and moderating effect of passion for work were examined by using AMOS. In the end, theoretical implications and practical implications along with limitations also provided here. Moreover, future guidelines also provided here. The results showed detail discussion on how perceived knowledge self-efficacy has influenced employee's creative performance.

The major contribution of the study is that it has studied the direct effect of perceived knowledge self-efficacy on creative performance on IT based organization for the first time instead of indirect effect which has been discussed in previous literature. In order to enhance creative performance, the results suggested that employees must be confident about their perceived knowledge and managers provide them friendly environment where employees easily share their valuable knowledge with their peers.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Representative Bias on Individual Investment Decision with Mediating Role of Risk Tolerance and Moderating Role of Locus of Control**

Ruhma Asif

University of the Punjab Lahore

**ABSTRACT**

According to traditional financial theory investors are supposed to be rational and make decisions that reflect all available information but prospect theory explained a number of biases which affect the investor's behavior and investors lead to irrational decision making. The purpose of this study is to look into the impact of behavioral biases (representative bias) in investment decisions, with the external locus of control environment of Pakistan acting as a moderator and risk tolerance as mediator. A questionnaire was used to investigate the relationship, as well as empirical data from investors about their own perceptions of these biases. A questionnaire was issued to a sample of 350 investors, and the collected data was analyzed using SPSS (Statistical Package for the Social Sciences) software. . The outcomes of this study will assist investors in identifying these biases that disrupted his decision-making level and then developing various techniques to overcome these biases and reduce irrational behavior. The study's other consequences and drawbacks are also examined.

**Keywords:** Representative Bias, Investment Decision , Risk Tolerance , Locus Of Control



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Students' Academic and Institutional Concerns in Crisis of COVID-19: Evidence from Pakistan**

Authors: Sania Saeed

Rizwan Qaiser Danish

Waqas Baig

Forman Christian College and University.

University of the Punjab

**ABSTRACT**

The coronavirus disease 2019 (COVID-19) pandemic arguably represents the worst public health crisis of the 21st century. However, in COVID-19 crisis no empirical study currently exists in the literature that examines students concerns as well as their academic and institutional concerns in presence of COVID 19 Preventions as per the directions of World Health Organization (WHO). This study evaluated the impact of COVID-19 on psychological, physical, and financial health concerns of students and also examined their academic and institutional concerns through adherence to COVID-19 preventions. The target population was students of under graduation, graduation, and post-graduation who are currently enrolled in Pakistani universities. The current study is quantitative as an online survey was administrated to students that focused on their experiences related to COVID-19. The survey included items about students' demographics, assessments of students concerns, COVID-19 preventions, academic, and institutional concerns of students. Data is cross sectional as it was collected from September 2020 to November 2020. SEM is used to measure the hypothesized model. The findings reveal that the model is fit and all the variables are significant and positively correlated. The indirect relationship between variables is also significant and all variables are partially mediated. The COVID-19 pandemic significantly impacted the financial, mental, and physical health of the students as well as by taking proper preventions of COVID-19 also mitigate the academic and institutional concerns of students. Our findings indicate that students are experiencing increased levels of stress, shortage of finances and feel their education has suffered if they should not follow the Standard Operating Procedures (SOPs) of COVID-19. Most of the students comfortable with technology adaptations for in structive curriculum and favor masks, social distancing, and substantial use of sanitizers.

**Keywords:** Covid-19, corona virus, students, education, preventions, Pakistan.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Impact of Telecommuting on Job Satisfaction with the mediating role of Work-family Conflict, Perceived Autonomy, Employee Engagement and Moderating Role of Personality Type**

Shahid Saleem

University of the Punjab, Lahore

**ABSTRACT**

The world was struck by the coronavirus (Covid-19) outbreak which wreaked havoc throughout the world. Both individuals and businesses were highly affected due to this disease specifically in the context of teleworking. The purpose of this study was to find if there exists a relationship between teleworking and employee's job satisfaction on the working place. The study will take the mediating variables of perceived autonomy, work-family conflict, and employee engagement to check if it mediates the relationship between teleworking and job satisfaction. Personality type will be used as a moderating variable on the relationship of teleworking and job satisfaction. This research was directed and conducted within different IT software houses of Lahore. For this study, a questionnaire was spread using google forms and a sample size of 450 was used to gather the responses, out of which 427 responses were received and recorded. 217 responses were from males which make the percentage of 50.81% and 207 responses were received from females which have the percentage of 48.47%. All the data collected was analyzed and tested using SPSS (Statistical Package of Social Sciences). COVID-19 was an unforeseen pandemic so therefore there was a need to study these different circumstances. Hypothesis testing was done using SPSS step wise hypothesis method. After getting the results, it was evident that telecommuting impact the job satisfaction of employees. Work-family conflict, perceived autonomy and employee engagement mediated the relationship between teleworking and job satisfaction. Furthermore, it resulted that personality type does not moderate the relationship between teleworking and job satisfaction. Cross-sectional study was implemented on the research so common method bias could be evaded. This study provides the organizations with a practical view of implementing remote work in their workplace and if it will increase their job satisfaction or not. literature. This study was conducted in the Pakistani context.

**Keywords:** Telecommuting/Teleworking, Job Satisfaction, Work-family conflict, Pakistan.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Study of Causes of Stress and Stress Management Strategies used by Students at University Level**

Ayesha Kiran

University of the Punjab, Lahore

Dr. Rizwan Qaiser Danish

University of the Punjab, Lahore

**ABSTRACT**

The purpose of this study was to find various causes of stress and further based on these causes stress management strategies adopted by students at university level. For this purpose, a survey was conducted among students and self-administered questionnaire was distributed for data collection. Two questionnaires were circulated in this study simultaneously for get response from a sample of 600 students based on item to response theory. Research findings revealed that with respect to money, relationship and body, mind and feelings there is significance difference between perceptions of male and female respondents when they were asked about causes of stress. It has been also concluded that with respect to university, money and to body, mind and feelings there is no significance difference between perceptions of public and private sector students. Majority of the students try to grow as a person as a result of the experience, go to watch movies or TV to think about stress less, sleep more than usual, restrain themselves from doing anything too quickly, put their trust in God, hold off doing anything about stress until the situation permits, try to get emotional support from friends or relatives, think about how they might best handle the problem. The demographic profile of the respondents show that most of the them were female and from public sector. The study additionally provides information that could decrease stress among college setting. The findings may be utilized as a kind of perspective point for analysts, educators, scientist when exploring college students stress and stress management strategies.

**Keywords:** Causes, Stress, Management Strategies, Students, University



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Supply Chain Finance, Firm Performance, and Industry Competition: Empirical Evidence from Pakistan**

Memoona Sajid, Reheel Safdar

University of Veterinary and Animal Sciences, Lahore, Pakistan

**ABSTRACT**

This study aims to examine the relationship between supply chain finance (SCF) and firm performance. Moreover, this paper empirically tests the potential role of industry competition as a moderator between SCF and firm performance. A conceptual framework is developed and tested using secondary data collected from 122 non-financial listed firms on the Pakistan Stock Exchange (PSX) over the period of 10 years. The regression analyses are performed in STATA to validate the proposed relationship. The results highlight that implementation of SCF has positive impact on firm performance, while industry competition significantly and positively moderates the relationship between SCF and firm performance. This study may help a firm to assess the value of operational financing to its financially constrained suppliers and customers by adopting supply chain finance practices. Furthermore, this study will help managers understand the role of the competitive environment while making supply chain financing decisions.

**Keywords:** Supply chain finance, industry competition, firm performance, resource dependency, supply chain partners



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**“Framework for Standardized Training and Development Bridging Institutional Voids through Entrepreneurial Interventions”**

Muhammad Baqar Naqvi

Khawar Razzak

**ABSTRAC**

Enterprise development has taken massive interest of researchers to unearth the facts behind entrepreneurial spirit. Pakistan, despite being one of the young countries, faces an acute imbalance between right work and right human capital. There seems to be many institutional voids that create hinderance to channelize the potential talent to ultimately contribute at their maximum. This article examines best global practices and digs out suitable framework to build capacity of human capital even from early years of their education. Study emphasises on bridging institutional voids through tech-based solutions. It assesses current system in Pakistan to promote entrepreneurial spirit, education, and training interventions through multiple institutions. Multiple national and international reports on skilling of human capital, entrepreneurial performance and role of social enterprises have been investigated. Models from various countries, having similarities pertaining to institutional functioning and young population, have been discussed in this paper.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Investigating the Role of Self-Disclosure and Intention to Visit Pakistan: Examining the Mediating Role of E-Mavenism and Extraversion**

Dr. Muhammad Rizwan Shabbir

Tanzila Samin

Muhammad Adeel Safdar

Shazia Hamayun

Dr. Muhammad Awais

Government College University, Faisalabad

NFC Institute of Engineering & Fertilizer research, Faisalabad

**ABSTRACT**

Pakistan has great geographical importance but unfortunately, there is scant literature on tourism in Pakistan as a developing country particularly. In the current research, the authors investigated the role of destination image on self-disclosure and intention to visit. Moreover, the study analyzed the mediating role of e-mavenism and extraversion. From 474 tourists data was collected who visited Pakistan as a destination. Confirmatory factor analysis (CFA) and structural equation modeling (SEM) was used to achieve the outcomes. Very few researches have investigated and no conceptual framework regarding mediating role of e-mavenism and relationship between emavenism and extraversion is found. The key point is that Pakistan must be creating a promising destination image to generate opportunities for extroverts, use all channels through e-mavens, understand self-disclosure, and develop a reliable relationship with the tourism industry. In the tourism sector and the scenario of Pakistani tourism-mavens needs to be extremely improved to heighten tourist self-disclosure, which, in consequence, will boost tourist intentions to visit Pakistan. Keywords: Destination image, extraversion, e-mavenism, self-disclosure, intention to visit



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Employees Turnover on Organizational Profit with Moderating Role of Recruitment**

Naveed Alam

Dr. Zargham ullah khan

**ABSTRACT**

This study aims to examine the impact of employee turnover on organizational profit. Employee turnover is examined on organizational profitability with the moderating role of recruitment. A total of 250 questionnaires were circulated among the organization 230 were received back and used for analysis. Data has been collected from different organizations with a 92% response rate, which is enough and above the approach level. For data results/analysis the SPSS software is used. The finding indicates a significant negative association between employee turnover and organizational profit. Furthermore, the analysis also confirmed the moderation role of recruitment influence organizational profit. The implication of the study is for an organization to develop a training program for employees which helps them control and manipulate their behavior in different conditions like dealing with a customer. It can also be used in different sectors like public and private organizations to improve employee satisfaction. The research advances previous studies by signifying possible paths to decrease employee turnover and increase required productivity.

**Keywords:** Employees Turnover, recruitment, organizational profit, employee satisfaction





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Ownership Concentration and Cost of Equity: The Moderating Role of Disclosure and Governance Quality in Pakistan**

Dr. Raheel Safdar

UVAS Business School, Lahore.

Hashmat Shabbir

UVAS Business School, Lahore.

**ABSTRACT**

This study analyses the relationship between ownership concentration and the cost of equity in Pakistan. Moreover, it tests the potential role of disclosure and governance quality in mitigating the adverse consequences of concentrated ownership for cost of equity. To measure disclosure quality we employ discretionary accruals and to measure governance quality we employ three alternate measures namely board independence, audit committee independence, and CEO duality. The proportion of shares held by top five shareholders is adopted as measure of ownership concentration whereas the cost of equity is measured as Industry adjusted earnings to price (EP) ratio. Multiple linear regression analysis is performed on pooled data of Pakistanis non-financial listed firms for period 2015-2020. Contrary to existing literature in developed countries we find a significantly negative relationship between ownership concentration and the cost of equity in Pakistan. These findings are ascribed to inadequate protection of business rights under weaker rule of law where the existence of large well-connected shareholders can be helpful in protecting business interests and thereby reducing business's risks and cost of equity capital. Furthermore, this study finds that better disclosure and governance quality mitigate the strength of negative relationship between ownership concentration and cost of equity in Pakistan. This underscores the potential role of disclosure and governance quality in acting as substitute to concentrated ownership in economies with poor investor protection. In overall, the findings support that regulatory requirements for more and better disclosure and governance quality can enhance Pakistan capital market's ability to discipline firms, thus ensuring the efficient allocation of resources in the economy.

**Keywords:** Ownership concentration; disclosure quality, governance quality; cost of equity;



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Knowledge Hoarding: An Individual Choice or a Contextual Enforcement**

Sadaf Choudhary

Virtual University

**ABSTRACT**

Knowledge is an essential entity of an organization that assists in gaining competitive advantage and hence ensuring the sustainability of the organization. It is considered as a main source of competitive advantage, therefore people perceived it something valuable and “hoard” it to ensure its rareness and inimitability. Therefore, knowledge hoarding is a behavior against knowledge sharing to limit its effectiveness to one’s own self and to restrict knowledge (perceived valuable information) for a specific purpose. Existing studies have not comprehensively explained the concept of knowledge hoarding. Specifically, the factors causing knowledge hoarding and the tool to measure it are the domains to be researched thoroughly. This study will focus on identifying the factors at individual, organizational and contextual level in the light of existing literature. The findings of the study will assist in suggesting remedies for knowledge hoarding in order to foster sustainability by examining employees’ behavior towards knowledge hoarding. Elaboration of this concept will also enrich the literature of knowledge management.

**Keywords:** Knowledge sharing, Knowledge hoarding, Knowledge hiding, Knowledge sharing hostility.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Role of Human Resource Practices in the Implementation of Digital Transformation: A Case of Pakistani Market**

Munawar Kashif

Dr. Zargham Ullah Khan

**ABSTRACT**

Professionals and academics need to know what human resource practices are necessary in digital revolution. The current research seeks to fill this gap by examining the effects of HR function and digital HR technologies on successful HR transformation. The research will also look into the impact of different HR positions (such as administrative, employee champion, change agent, and strategic partner roles) on business outcomes and digital HR technology. Post-positivist survey methodology was used in the study. Study focuses on primary data. A survey questionnaire was conducted in online and offline modes. If HR transformation utilizing digital human resource technology (HRT) is mediated by different HR roles (strategic, employee champion, change agent, and administrative expert), it can dramatically improve the business outcomes. The outcome also demonstrated that simply implementing and adapting the Digital HRT may not ensure HR Transformation unless HR optimizes the particular position in accordance with the need of the moment.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**A Study to Investigate the Factors Affecting Employee’s Retention with Job Stress as a Moderator and Employees Engagements as a Mediator**

Misbah Jamil

Dr. Zargham-Ullah Khan

Hailey College of Banking & Finance, University of the Punjab Lahore

**ABSTRACT**

The banking sector plays an important role in the economic development of the country. The longer period retention of employees has a competitive advantage, it increases the performance of banks and enhances the productivity of banks. The main objective of this study attempts to find out the relationship of different factors (Career Development, Leadership, Empowerment, Compensation and Motivation) effecting on employee’s retention in the private banks of Lahore, Pakistan. Furthermore, Job stress is used as a moderator between Employee Engagement and Retention while employee’s engagement is used as a mediator. Study focuses on primary data. Population used for the study/research is all employees of private banks of Lahore, Pakistan. Convenience sampling technique is used to get responses from the respondents who are working in the private banks of Lahore region. A field study is performed using a questionnaire method to collect data from employees working in the private banks in Lahore and psychometric scale is set up to rate the responses. The Statistical Package for Social Sciences (SPSS) systematic computer software is used. A hierarchical multiple regression and correlation analysis is performed using IBM SPSS. It is hoped that this study will benefit many organizations, especially the employers and human resource managers in Pakistan Banks by developing a better understanding on the importance of employee engagement and job stress within the organization. It will also help organizations to mold their policies in order to retain employees for a longer period that will improve the performance of the business.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Remuneration Reward Management System as a Driven Factor of Employee Performance**

Syeda Mehak Fatima

Dr.Zargham Khan

**ABSTRACT**

The purpose of this study is to examine the impact of remuneration reward system on employee performance with the mediating role of motivation and job satisfaction.

The data in this research was taken from private sector companies such as CmPak Zong, People, and Huawei companies employees amounting to 440 employees out of which 400 responded accurately. SPSS is used to enter data and SEM tests are performed to examine the impact of remuneration reward system, motivation, and job satisfaction either directly or indirectly on employee performance.

The results proved that remuneration reward system and job satisfaction have a positive influence on performance. Furthermore, motivation and job satisfaction are found to be significantly positively influenced by remuneration. Motivation can improve employee performance being the mediating variable. This study can add value for the organizations to understand the relationship between reward, motivation, job satisfaction and their impact on employee performance to achieve organizational goals.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Effect of Product Quality and Price on Customer Retention with a mediating role of Customer Satisfaction**

Zaeem-Ur-Rehman

University of the Punjab, Lahore

Zeshan Ahmer

University of the Punjab, Lahore

**ABSTRACT**

In this highly competitive environment, it has become strenuous for organizations to retain their customers, Therefore, there should be some input factors which can help in increasing the customers' retention rate. Hence, this study aims to examine the effect of product quality and price on customer retention by studying the mediating role of customer satisfaction. The review of the literature has highlighted the significance of better quality and reasonable price in satisfying the customers which ultimately results in retaining the customers for longer period of time. Primary data was collected through questionnaire from the target population, which was the users of different shoe brands in Pakistan. A total of 420 questionnaires were distributed and response rate was 94%. The data was mainly analysed by using the SEM (Structural Equation Modelling) technique. Other analyses were performed through SPSS. The findings have showed that the quality of the product highly affects the satisfaction level and retention rate of customers. Same goes for the product price. Both the independent variables (product quality and price) have exhibited an indispensable role in retaining the customers by satisfying them first. The results of this research study are advantageous for marketing managers, strategists, policy-makers and future researchers.

**Keywords:** Product Quality, Product Price, Customer Satisfaction, Customer Retention





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Green HRM and Green Creativity: Mediation of Green Vision and Moderation of Individual Green Value**

Shabir Hussain Sakhi

Dr. Zargham Ullah Khan

**ABSTRACT**

In order to reduce environmental pollution and achieve sustainable development, organizations must vigorously promote green creativity among employees. The role of green human resource management (Green HRM) practices in shaping employees' green vision and Individual Green Values is well documented in existing literature.

The purpose of this study is to examine the effect of Green HRM practices on employee's green creativity. Moreover, the mediating role of green vision and the moderating role of individual green values would also be examined. Data were collected from 437 employees working in organizations from multiple industries in Pakistan. The results indicated that Green HRM practices positively affected green creativity. Furthermore, green vision partially mediated the link between Green HRM practices and green creativity. Finally, it was also found the individual green values moderated the relationship between Green HRM practices and green vision.

This study evaluated quality of measurement model to confirm the validity and reliability of the analysis by using the PLS–SEM technique through Smart PLS Algorithm.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Green Transformation leadership, Green HRM and Pro-Environmental behaviors: An Effectual Drive to Environmental Performance in SMEs’ of Lahore.**

Nimra Younas

**ABSTRACT**

Considering the severity of environmental issues, companies are expected to plan and implement green human resource management and practices. Increase in the environmental impacts is a matter of concern not only for the policymakers but also for the leaders and academics. The leader of organizations has the ability to drive the green behaviors of employees resulting to increase the environmental performance. Employees are considered to be the implementers of the green management practices and their green behaviors and activities at workplace can be a driving force of different environmental difficulties that hinder the environmental performance. So, the prevailing research study is undertaken to investigate that how green human resource management and green transformational leadership heightens the environmental performance. It also focus on accessing the mediating role of pro-environmental behavior between green transformational leadership, green human resource management and environmental performance. Using a quantitative research design, the data was collected from the small and medium enterprises of Lahore with a self-administered survey questionnaire. 450 questionnaires were distributed among which 370 questionnaires were returned completely filled. The analytical results revealed that green HRM and green transformation leadership leads towards optimizing the environmental performance. Moreover, the findings shed light on the role of green HRM and green transformational leadership to engage and motivate the employees for organization’s ecological betterment by generating pro-environmental behaviors in order to reach environmental performance. This study is going to be an extension in the existing body of knowledge by recognizing the predictors of green HRM and green transformational leadership as substantial antecedents of pro-environmental behaviors of employees of SME’s and environmental performance. The study provides significant suggestions and implications for the policy makers and top managers to ensure the employee’s commitment towards implementing the green HRM and using green transformational leadership style for achieving environmental performance.

**Keywords:** Green HRM, Green Transformational Leadership, Pro-environmental Behavior, Environmental Performance and SME’s.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**“Corporate Brand Construct of Higher Education Institutions”**

Abdul Rehman Mazhar

**ABSTRACT**

The study offers the definition of corporate brand construct for higher education (HE) institutions. Academic literature to conceptualize the corporate brand has been integrated with the managerial experience. Multiple factors which create complexity in the higher education institutions have been highlighted. Based upon findings, managerial implications have been suggested to tackle the critical challenges in HE institutions. Theoretically, the study acts as a foundation to conceptualize and further explore the corporate brand construct for HE institutions and propose a definition. “Corporate brands that represent Higher Education institutions are complex, dynamic and defined by associated stakeholders”

**Keyword:** Corporate brand, Higher Education institutions, complexity,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Building Trust Intention in Digital Sharing Platforms: Role of Firm Reputation**

Usman Ghani

Hailey College of Commerce, University of the Punjab

Hafiza Aban Abid Qazi

Hailey College of Commerce, University of the Punjab

Dr.Fouzia Hadi Ali

Hailey College of Commerce, University of the Punjab

**ABSTRACT**

The current study aimed to examine the impact of McKnight Model of initial trust intention towards using Digital Sharing Economy Platforms (DSEP) such as Careem, Uber, AirBnb, Mr. Mahir, and many others through moderation of firm reputation. Data will be collected from 500 users of digital sharing economy platforms living in Lahore through snowball sampling. The study's findings will help researchers understand the importance of a firm reputation in shaping initial trust intention towards DSEP. Also, the current research opens up new avenues for researchers to identify and explore multiple factors as moderators for building initial trust intentions towards DSEP. The present study findings bring several implications for marketing management, such as designing special programs to build a firm reputation.

**Keywords:** Trust Intention, McKnight Model, and Digital Sharing Economy Platforms.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Configuration of Value Co-Destruction Spaces in Digital Sharing Economy Platform: A Theoretical Framework**

Hafiza Aban Abid Qazi

Hailey College of Commerce, University of the Punjab

Prof.Dr. Mubbashir Munawar Khan

Hailey College of Banking and Finance

Dr.Fouzia Hadi Ali

Hailey College of Commerce, University of the Punjab

**ABSTRACT**

Plé and Cáceres (2010) introduce value co-destruction (VCD) as an extension to Service-Dominant Logic value co-creation (VCC). VCD is an interactional process between service systems that decline at least one of the system's well-being. The study of Echeverri and Skålén (2011) used the terminology of interactive value formation (IVF) that explains how VCC and VCD occur. Researchers (Anne, 2013; Čaić, Odekerken-Schröder, & Mahr, 2018; Camilleri & Neuhofer, 2017; Castillo, Canhoto, & Said, 2020; Dolan, Seo, & Kemper, 2019; Echeverri, 2021; Echeverri & Skålén, 2011; Engen, Fransson, Quist, & Skålén, 2021; Laud et al., 2019; Lintula, Tuunanen, & Salo, 2017; Schulz, Zimmermann, Böhm, Gewalt, & Krcmar, 2021; Siddique & Shamim, 2021; Sthapit, 2019; Sthapit & Björk, 2019) explore VCD for more than a decade using Echeverri and Skålén (2011); Ple and Cáceres (2010) operational definition. However, the available literature focuses on the antecedents and consequents of VCD and ignores other aspects. For instance, what is meant by well-being during the interaction? And how will it decline in each interactional process for any actor or service system? Another critical factor missing is how VCD occurs in different spaces and declines actor or system well-being. VCD is primarily explored from a digital sharing economy perspective since 2017. But the question is still unexplored on how VCD occurs in the digital sharing economy is. Therefore, the current study conducts a detailed literature review of VCD, published in WoS-indexed journals. The present study's findings proposed a theoretical framework for future studies to explore VCD in different business models and spaces.

**Keywords:** Value Co-destruction, Interactive Value Formation.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Customers Intention to Adopt Digital Banking Services: Moderating Role of Perceived Risk  
In Banking Sector of Pakistan During Covid-19 Pandemic**

Dr.Rizwan Qaiser Danish

Dr.Muqqadas Rehman

University of the Punjab, Lahore

Anita Ali

Hailey College of Commerce, University of the Punjab,Lahore

**ABSTRACT**

The COVID-19 pandemic poses a huge challenge for the Pakistani financial industry, leading to an increase in digital banking as it has become a necessity for users of financial services. The research seeks to empirically test the impact of customer perceptions on the adoption of digital banking during COVID-19. In addition, this study investigate the impact of performance expectancy, Effort Expectancy, and Social influence on customer's intentions to adopt digital banking services with moderating effect of perceived risk. The population of the study consist of all the customers of banks which are providing digital banking services in Pakistan. A survey was conducted and 254 responses were analyzed with the help of structural equation modeling. Study concludes that Performance Expectancy, Effort Expectancy and Social Influence as independent variable and Perceived Risk as moderating variable has a significant impact on the perception of customers of digital banking applications. Study further contributes that Perceived Risk moderates the relationship between Performance Expectancy, Effort Expectancy, Social Influence and the intention of customers of digital banking applications to adopt digital banking services.

**Keywords:** Digital banking services, Banking sector, UTAUT, Perceived risk, Performance Expectancy, Effort Expectancy.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**A Study to Investigate the Factors Influencing Internet Banking Adoption in Emerging Market: A Case Study of Pakistan**

Iram Shahzadi

Dr. Zargham Ullah Khan

**ABSTRACT**

The purpose of this study is to examine the factors effecting the customer's intentions in adoption of internet banking services in emerging economies. To find out the outcomes the study was conducted on respondents taken from province of Punjab Pakistan via distributing questionnaire physically and through google forms to banks customers. Service quality gap model (SERVQUAL) was employed in this study to check hypothesis. The statistical package for social sciences (SPSS) systematic computer software is used. The major findings depict that customers are influenced by many factors such as online customer service quality, online information system quality, banking service product quality and convenience all factors have considerable impact on customer satisfaction resultantly that helps customers in decision forming process regarding adoption of online financial services. These findings will be helpful for many banks to enhance their product quality and making strategical decisions to meet customers' expectations in order to get desired expansion/development



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Behavioral Factors Affecting Investment Decisions in Pakistan Stock Exchange**

#### **ABSTRACT**

Taking investment decision in stock market has always been perplexing and difficult task. When one thinks to invest in stock market, his investment decisions are influenced by certain psychological factors. Herding and heuristic biases while investing in stock market play a significant role on investors' investment decisions. The purpose of the study is to explore certain behavioral factors which influence the investment decision making and their overall impact on the investment performance. As there are limited studies about behavioral finance in Pakistan, this study is expected to contribute significantly to the development of this field in Pakistan. The study begins with the existing theories in behavioral finance, based on which, three hypotheses are proposed. Then, these hypotheses are tested through the questionnaires distributed to individual investors at Pakistan Stock Exchange. The collected data are analyzed by using SPSS and AMOS soft-wares. The result shows that there are two main behavioral factors affecting the investment decisions of individual investors at Pakistan Stock Exchange: Herding and Heuristic. These factors have high level impact on investment decisions whereas Representativeness bias has moderate influence. This study also tries to find out the correlation between these behavioral factors and investment performance. Among the behavioral factors mentioned above, herding has positive impact over the Investment Performance while heuristic factor influences negatively on investment decision making. Here herding factor includes following other investors' decisions regarding buying and selling; choice of trading stocks; volume of trading stocks; speed of herding while heuristic factor is composed of five different biases namely representativeness, anchoring, overconfidence, gamble's fallacy and availability. The herding behaviors are found to have the positive impact on the investment performance while the heuristic behaviors are reported to influence negatively investment performance.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Impact of Organizational Commitment, Psychological Empowerment and Transformation Leadership on Organizational Performance**

**ABSTRACT**

The performance of the organization is the focus of this study. Every organization wants to increase the performance of its organization because every organization's profitability is dependent on that performance. The organization's manager regularly assesses the organization's performance and works to enhance factors that contribute to that performance. The researcher published numerous publications on the variables influencing organizational success. In this research, we looked. Impact of transformational leadership, psychological empowerment, and organizational commitment on performance We collect the data from employees and managers of the different organization through questioner the data were collected from more than 200 respondents. We also make some interviews of the top managers. The aim of the study is to improve the performance of the organization. In the previous researches we see some factors which affect the performance of the organization. In this study we check the collective impact of organizational commitment, psychological empowerment and transformation leadership on organization performance We apply the SPSS test and smart PLS test on the data which we collect from respondents. And then analyze the impact of organizational commitment, psychological empowerment and transformation leadership on organization performance through results. The results show that the organizational commitment, psychological empowerment and transformation leadership have positive impact on organization performance



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**A Study of the Factors Triggering Stagnant Growth of the Insurance Industry of Pakistan and Proposed Strategies that can Boost Insurance Penetration of the Country**

Mohsan Tanveer

**ABSTRACT**

Growth of the insurance industry of any country can be identified from the insurance penetration i.e. a percentage of premium written in a particular year to the GDP (Gross Domestic Product). The penetration of insurance in a country or region depends on the demand and supply of insurance services and demand for insurance mainly rely on the income of masses, preferences for financial security, premium rates etc. Secondly, economic environment of a country, interest rates, inflation, cultural/religious beliefs, level of awareness and individual ability to plan for future also affect the demand for insurance. Unfortunately, insurance sector of the developing countries like Pakistan is neglected as compared to the developed countries and in some struggling economies, it apparently does not exist. Past studies showed that the penetration of insurance was less than 1% in Pakistan but there are multiple opportunities for a massive growth of the industry. The below average insurance penetration of Pakistan can be attributed to the neglect by the governments due to political instability, lack of innovation/R&D, lack of awareness among the general public etc. This research paper will attempt to provide a detailed study of the factors triggering stagnant growth of the Insurance Industry of Pakistan and workable strategies will be proposed on the basis of the findings to boost insurance penetration of the Country which can ultimately help in increasing the GDP, foreign reserves, employment opportunities, financial security, etc Specific variables will be studied on the sample based primary data and suitable statistical techniques will be used for data analysis. All efforts will be made in this research work to identify the key indicators that require attention of the policy makers to raise the penetration of insurance in Pakistan as concerted efforts in the right direction will not only support the growth of insurance industry in the country but will also contribute towards achieving long term prosperity and sustainable economic development.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Determining an Impact of Societal Norms on Intention to Use Technological Innovations in Smartphone Applications**

Sahar Latif Rana

University of Education, Lahore.

Abida Hafeez

University of Education, Lahore

Huma Fatima

University of Education, Lahore

**ABSTRACT**

Smartphones facilitate the potential adoption of new mobile applications. The purpose of this research was to determine the impact of social norms on antecedents of intention and to identify the means which drives the use of smart phone applications across its users. For research purpose three selected applications were used. The usage of smartphone applications was measured by using questionnaire. Purposive sampling technique and convenience sampling techniques were used for data collection purpose. Total 150 questionnaire were distributed and the response rate was 89%. SPSS 22 was used for data analysis. Findings reveal that social norms has a positive effect on perceived enjoyment and perceived usefulness whereas perceived usefulness has insignificant relationship with intention to use.. On the other hand, perceived enjoyment and perceived usefulness has a positive and significant effect on intention to use advanced mobile services. Regarding perceived usefulness, study reveals that further research is directed in exploring its impact more thoroughly. The dataset of the research, young smartphone owners and limited sample size make the generalization of results difficult. Differences exist regarding usage of smartphone applications. In this study games are considered hedonic application, whereas mobile internet and map application, are driven by utilitarian motive. It is clear that not everybody is using applications for enjoyment purposes, rather they are also availing their benefits at office and work areas. Hence, presented approach of studying user of smartphone applications provides a new approach to analyze its adoption at practical level

**KeyWords:** Social norms, intention to use, perceived usefulness, intention to use, smart phone, and technology



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Market Performance of Listed Companies Implying with Sdgs: A Fuzzy Phenomenon**

Hareem Imran

Kinnaird College for Women, Lahore

Syeda Fizza Abbas

Kinnaird College for Women, Lahore

Fareeha Waseem-

Kinnaird College for Women, Lahore

#### **ABSTRACT**

In order to promote the incorporation of these SDGs in the business, recent studies have focused on the work adopted by businesses and its impact on a firm's performance. The implications of SDGs have shown a negative relationship with the financial performance of firms. (Lassala, Orero-Blat, & Ribeiro-Navarrete, 2021). This report tends to identify any significant relationship between firms aligning with the SDGs and the firm's market performance, in order to contribute to the supportive literature on the monitoring of the work on SDGs. The report presents the work on a global level by focusing on both; developed and developing nations. Recent data for the year 2021 was collected through content analysis of the published reports and the official websites of the listed companies. The listed companies were taken from stock exchanges of the sample countries. A total of 300 companies were taken, comprising 150 companies each category; developing and developed nations. A comparative analysis was performed using the software fsqCA 3.0. The findings of our study show that there is no necessary relationship between the outcome condition and the causal conditions. The findings are inconsistent with the benchmark used. A difference in the consistency values and conditions was observed among the two data sets that lie among the two tests run. This provides evidence that these factors are affected by how well established the country is. This report contributes to the existing literature about sustainable practices or adopting sustainable development goals in business strategy, with its linkages to the firm's performance. Post-Covid, this phenomena has taken a rise in the academic literature. Yet, in the finance field, the investigation is still in its initial stages, lacking research contributing towards SDGs monitoring.

**Keywords:** Sustainability, SDGs, Firm performance, Market-based measures, FsqCA





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Financial Distress and its Determinants: Evidence from Banking Sector of Pakistan**

Muhammad Farhan

Ayaz Faryal Shahid

Hailey College of Banking & Finance University of the Punjab, Lahore

Hafiz Ahmed Ullah

Hailey College of Commerce, University of the Punjab, Lahore

**ABSTRACT**

Corporate financial distress has become a very hot topic in finance these days. It affects the wealth of a shareholder and exercises a great impact on different stake holders. The importance and relevancy of corporate financial distress cannot be denied in today's modern era where the changes take place dynamically in a quick session across the world. The meaning of financial distress is the situation of a company where it cannot meet its obligations and as a result, the creditors refuse to supply the goods or the financial institutions like banks may reject to give the loans to that company. Creditors feel uncomfortable to work with the companies facing the financial distress situation because they are not sure about the fulfillment of their orders or to pay their debts fully in time. If the period of financial distress stays long, it may lead a company to bankruptcy and reduces its market value. This research is aimed to investigate the determinants of financial distress of banking sector in Pakistan using balanced panel data from 05 Banks for the period covering from 2016 to 2020 on quarterly basis. A quantitative approach and explanatory design will be employed to realize the stated objectives. To achieve the study objectives, secondary data will be collected from quarterly financial statements of sampled Banks for the stated period and will analyze using descriptive statistics and a random effect (RE) regression model.

**Keywords:** Altman's Z-Score; Determinant Factors; Pakistan; Financial Distress; Banking Sector



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **The Effect of Authentic Leadership on Employee Voice Behaviour**

Qandeel Mehndi

University of the Punjab, Lahore

#### **ABSTRACT**

This article examines the effect of authentic leadership on employee voice behavior by analyzing the partial or complete mediation of organizational culture by using Hofstede's six dimensions of organizational culture. Organizational culture plays the role of mediator in this research in a way manner that its existence describes the impact of authentic leadership on employee voice behavior. This study will approach the cultural dimensions on an individual level which would be helpful in understanding the employee's behavior towards the organization under different circumstances. Furthermore, this research would be conducted in public sector of Pakistan i.e. Lahore development Authority (LDA) and this study would be descriptive in nature and a cross-sectional research design to carry out this research. Therefore, this study has some meaningful contribution in future researches and to explore more about the organizational culture and employee's behavior in different public sectors. To a greater extent, this study reveals the leadership factors which could enhance and weakens the employee's motivation towards their behavior patterns in organization environment



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Artificial Intelligence & Human Resource Management. A Descriptive Study on the Educational Sectors in Lahore, Pakistan**

**ABSTRACT**

This paper presents use of artificial intelligence in human resources due to changes of technology in education sector. Almost all the institute are using artificial intelligence to increase efficiency of human resources in Education Sector. The initiative begins with automated process in recruitment till performance appraisal of employees. Organizational leaders and human resource executives have faith that merging artificial intelligence (AI) into HR functions like on-boarding and administration of benefits can and will improve the overall employee experience. We will be discussing both the viewpoints in this article, as people take artificial intelligence as a boon and a threat to their jobs. We have analyzed some of the top Institutes of Lahore as reference which are into artificial intelligence for our study. We have focused on the challenges and limitations of artificial intelligence in the present scenario. The study will also give a brief understanding of the future aspiration of artificial intelligence in educational sector.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Determinants of Environmental Performance in Higher Educational Institutes of Pakistan**

Imran Shahzad

**ABSTRACT**

Climate change is a serious worldwide issue that is possibly one of the greatest challenges faced by humankind (Gilal, Gilal, & Gilal, 2014; Kazdin, 2009; Stern, 2011). In recent times, organizations have been facing pressure from stakeholders to reduce the environmental impact created by their business activities (Longoni, Luzzini, & Guerci, 2018; Singh, Chen, Del Giudice, & El-Kassar, 2019; Yu, Ramanathan, & Nath, 2017). The study adopts quantitative research method of primary source was utilized to collect the data from 250 respondents from Education Sector through web based Survey. The validated scales were adopted and adapted for all constructs. The probability sampling technique was used to collect data and analyzed by using Statistical Package for Social Science (SPSS). The findings show that GHRM Practices and Employee Student Involment Practices have positive effect on Environmental Performance in Higher Education Sector. Contribution: The analysis reveals that the synergy between green human resource management practices and employee student Involment creates the highest value in educational environmental performance. There are several limitations in this study. We only include only five Pakistan Higher Education Institutes of Lahore in our research sample. In order to achieve more specific findings, the researcher opted to integrate some limitations in the research process. In particular, this study only focuses on the effects of Green Human Resource Management Practices and Employee Student Involment or techniques within the education sector. In the data-gathering procedure, due to time and budget constraints as well as proximity reasons, the researcher considered it appropriate to concentrate the research using the limited resources. Future researchers may conduct research in a different industry to find whether this model has positive or negative effect on organizational performance. In this study, we included only the independent variables (Green HRM Practices, Employee Student Involment). However, future research may include more independent variables in the relationship-testing relationship model.

**Keywords:** Green Human Resource Management, Green Human Resource Management Practices, Human Resource Management, Employee Student Involment, Environmental Performance.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Impact of Natural Disaster (Flood) on the Performance of Veterinary Employees for Sustainable Development: Emotional Intelligence, Resilience and Engagement**

**ABSTRACT**

The aim of this study is to show how the performance of veterinary employee's emotional intelligence influenced their resilience with repercussions on their engagement and subsequent performance. Quantitative research was used: data was collected from the veterinary doctors, 350 valid responses were gathered through online questionnaire in Pakistan. A research model was used for sustainable development (SDG's). The validated scales were adapted for all constructs. The validity and reliability analysis were performed; ANOVA was also used to test hypothesized relationships. The findings revealed that emotional intelligence was positively related to resilience which in turn was related to engagement and consequently, resulted in the better performance of veterinary employees. This finding should spark interest in developing emotional intelligence in livestock department. This study provides a model that links classic variables on livestock sector and positive psychology research with SDG's in times of climate disaster (flood)

**Keywords:** Sustainable development goal; emotional intelligence; resilience; engagement; veterinary employee performance



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Relative Analysis of Financial Performance of Islamic Banking and Conventional Banking in Pakistan**

### **ABSTRACT**

Over the last few years, the sustainability and performance of Islamic banks (IBs) have raised a debate among policymakers, regulators, economists, and investors due to the rapid growth and development of these financial institutions. The objective of this paper is to analyse the relative financial performance of Islamic banks (IBs) with Commercial banks (CBs) in Pakistan over the period of 2019 to 2021, to get the measure that, how IBs are making progress as compared to their peer's CBs. With the purpose, to analyse and comparing the financial performance of IBs and CBs operating in Pakistan, the financial ratio analysis (FRA) is being considered in this paper. Top-five IBs and top-five CBs offering Islamic products are included in the sample. The findings show that IBs have higher liquidity, are capitalized in a better way and are less risky as compared to CBs. Counter to this, CBs are found to have higher profits than IBs. This study only provides an analysis of the financial performance of IBs and CBs (offering Islamic products) operating in Pakistan. Meanwhile, a cross-country analysis can derive more significant information, to compare the financial performance of IBs and CBs. This study supports that Islamic banking should be augmented in Pakistan. And for this purpose, new branches of IBs should be opened and Islamic literacy should also be promoted. This study would assist creditors, debtors, managers, investors, and other stakeholders in decision-making purposes. Furthermore, this latest information would also be useful to regulators and policymakers in developing rules, regulations, and policies for the financial and banking sector in Pakistan





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Effect of Organizational Justice Organizational Environment and Ethical Leadership on Employee Performance Through Mediating Role of Job Satisfaction**

NaveedShabir

**ABSTRACT**

The aim of this paper is to examine the effect of organizational justice, organizational environment and ethical leadership on employee performance through mediating role of job satisfaction. In this study, we used a quantitative approach, the data collected online questionnaire survey through share link. The data were analyzed used the structural equation modeling (SEM) with AMOS software. The findings of this study, organizational justice, organizational environment and ethical leadership (Independent variable) have been shown positive and significant effect on employee performance (Dependent variable) through job satisfaction (Mediation variable). This result shown of this study can be increase employee performance through role of mediating job satisfaction. This study presents empirical evidence in the context of organization in private sector banks about what variables have a positive and significant effect on employee performance.

**Keywords** Organizational justice, Organizational environment, ethical leadership, job satisfaction, employee performance



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Motivation on Employees' Integrity and Corporate Citizenship Behavior in Public Sector Organization**

Maria Tariq

UVAS Business School

Dr. Attiq-Ur-Rehman

University of Veterinary and Animal Sciences, Lahore

**ABSTRACT**

This study aims to influence of servant integrity and corporate citizenship behavior in public sector organization. A structured questionnaire was used in this study to analyze the employees' performances. Total 300 responses were collected and 250 were used for final analysis. The quantitative method used for this analysis on the basis of SPSS. The findings of my study is to examine the citizenship behavior and integrity of employees' according to public sector organizations.in this we also find that how the leaders behavior and leaders motivation level increases the work performances in organizations.The results from this study provide the significant insights on how the public sector can identify, develop and maintain servant leaders to promote employees' organizational citizenship behavior (OCB). The results and recommendations from this study also pace for future scholars to discuss in public sector.

**Keywords:** Servant leadership, organizational citizenship behavior, public service motivation, time spent,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Linking Digital Leadership Factors and Virtual Team Performance: The role of Virtual Team Culture**

Anam Toqeer

University of the Punjab, Lahore

**ABSTRACT**

Leadership has been considered since a long time for employee performance but digital leadership is the new term which acknowledges the leadership style for employee performance. The main objective of the research was to evaluate the impact of digital leadership factors on virtual team performance in IT sector firms. Another objective of the study was to check if the virtual team culture moderates the relationship between digital leadership factors and virtual team performance. The roots of the research lies in organizational capabilities based theory. Data was collected from 383 respondents working in IT sector firms and have virtual team working experience. Data was collected using questionnaire. Results showed that digital leadership factors put a significant impact on virtual team performance. Results also showed that virtual team culture plays a moderating role between digital leadership factors and virtual team performance. As there is limited research on digital leadership factors in Pakistan, so, this study will provide reliable information to the leaders who work virtually to work on their required competencies before taking any decision about the firm in certain circumstances. This study will also contribute to the body of knowledge by studying the role of digital leadership factors which are being considered by employees for their effective performance.

**Keywords:** Digital Leadership, Virtual Team Performance, Virtual Team Culture



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Service Quality and Perceived Value on Brand Loyalty Among Passengers Satisfaction: An Empirical Study in Context of Pakistan Railways**

Khurram manzoor

Uvas business school lahore

**ABSTRACT**

This study aims to analyze the impact of service quality and perceived value on brand loyalty among passengers' satisfaction of transport sector in Pakistan as in the recent years this sector has faced many challenges. This research study presents a solid comparison of two major and unavoidable service sectors of Pakistan i.e. Pakistan railways and Daewoo express. The contrast/comparison between these variables will help to improve positively in both sectors. It is a quantitative, empirical and correlational study. Convenient sampling technique is used here for data collection. Sample size was comprised of 250 respondents. The Likert scale was adopted for all constructs to measure the results. The correlation between the variables is calculated by using SPSS. The findings/results of the study show that passengers' satisfaction is more positively correlated on the brand service quality whereas perceived brand loyalty is not much positively correlated with the passengers' satisfaction. According to the analysis results of this research study, the only thing which satisfied the passengers is the service quality of that very brand. The primary value of the present study is that the service sectors of transport industry should make efforts for the betterment of the service qualities of the system to satisfy the passengers/customers.

**Keywords:** Passenger's satisfaction, Perceived value, Brand loyalty, Service quality.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Investigating the Weekend Effect on Returns of Stocks; A Comparison of Listed Firms and Index Returns of KMI-30**

Saira Asif

Naila Sadiq

Syeda Fizza Abbas

### **ABSTRACT**

The aim of this study is to inspect the existence of the weekend effect in the Shariah Indices and the firm listed under these indices. This studied is being conducted on the Shariah index from Pakistan stock exchange (PSX). The firm level data and shariah index returns data is taken from Pakistan stock exchange (PSX) for Karachi Meezan Index (KMI-30). The data for 30 companies listed on KMI-30 index are taken for the period from 2017 to 2021 to examine the weekend effect. Secondary data has been chosen for this research. The data is taken for the KMI-30 companies and index for the five years closing stock prices is taken dated from 1 January, 2017 till 31 December 2021. The data is time-series. The weekend impact was detected using basic Ordinary Least Square Regression and advanced GAARCH (Bollerslev, 1986) family models. The Stock Price changes have always caused curiosity among not only the market participants, but also the researchers who are interested in the occurrence of numerous anomalies that result in deviations from the generally accepted theories about stock prices. Anomalies that defy the Efficient Market Hypothesis include calendar anomalies, fundamental anomalies, and technical anomalies. Based on historical data, calendar anomalies can be projected to show differences in stock returns on different days of the week and months. Previous findings have shown that the Stock returns on Mondays are sometimes much lower than those on the Friday before. By using the setting of the Islamic stock market, we expect that the calculated daily returns are dependent on the day of the week. More specifically, we expect the returns by demonstrating the presence of this "weekend effect," returns on Fridays are higher and returns on Mondays are lower than on other days. However certain studies imply that the weekend effect gradually disappears and fades in the long-run and may subsequently reappear, even reversal. The findings of this research are providing the market-and firm-level comparison from the Islamic emerging market of Pakistan that will assist local and international investors in choosing the best portfolios and developing better investment plans. This will help the market participants and investors to manage their investments to generate higher returns. Although a lot of research has been done in context of market anomalies, yet this study fills the literature gap by investigating Pakistan Islamic index, which hasn't been studied much. Also, comparison in aspects of both the market level (index returns) and firm level (by taking the companies listed under this Islamic index will give add to the literature by telling whether the anomaly impacts index along with its listed firms in a similar pattern.

**Keywords:** Efficient Market Hypothesis (EMH), Weekend Effect, Monday Effect, Islamic Emerging Markets, Stock Price Movements, Stock Returns, Calendar Anomalies, Day of The Week Effect, PSX.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Investigating the Perception of Public About the COVID-19 Vaccinations in Pakistan**

Mr. Muhammad Waqas

University of Veterinary and Animal Sciences, Lahore

**ABSTRACT**

The novel coronavirus has been shown to be extremely contagious and has spread quickly in a matter of months throughout the entire world. In many countries, vaccination is a complicated phenomenon. Because of both its successes and shortcomings, it has consistently been in the news. Similar to how COVID-19 has been the subject of rumors and conspiracy theories throughout the world owing to unease, worry, and terror over a phenomenon that is always changing, COVID-19. These stories ought to be viewed as "social phenomena" that show how different socio-cultural, economic, and geo-political aspects interact. Public perceptions and attitudes have their origins in the nation's varied socioeconomic, economic, and political elements, which are crucial in the development of unique imaginaries and behavior. We all belong to a global community, and COVID-19 has shown that as a result, providing appropriate healthcare is both a national and international responsibility. This study employed qualitative method to acquire information on people's attitudes and perspectives on the current COVID-19 pandemic vaccines in Pakistan, in-depth qualitative interviews (n=30) were performed. The 30 files are transcribed before being loaded into the NVivo program, which is then used to locate, code, group, and establish a conceptual framework based on emergent themes using thematic analysis. It was found out that majority of the respondents have positive perceptions regarding the COVID-19 vaccinations as far as quality is concerned. The themes which emerged from these interviews were awareness, experience and negative words of mouth. Finally, results show the significance of the study for different aspect of use in various walks of life in our global society.

**Keywords:** COVID-19, Coronavirus, Vaccine, Pandemic, Perception, Rumors





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Investigating the Effectiveness of Protean Career Practices on Sustainable Career Development; Do Career Shocks Play any Role?**

Dr. Muhammad Bilal Ahmad  
University of Education, Lahore  
Dr. Mubbsher Munawar Khan  
Hailey College of Banking & Finance

**ABSTRACT**

Career is important but it is unpredictable as well. Recent changes in labour market conditions, fast technological advancements, and contractual employment commitments have urged the employees to take the responsibility of their respective career development. Therefore, this study tries to investigate the effectiveness of protean career attitudes on employee sustainable career development after the occurrence of un-planned events during their careers. The study will be conducted on the employees between the age of 31 – 40 years, working in service sector of Pakistan and having experience of any un-planned career event(s) (i.e. career shock) during their professional career. The study will help to understand the role of career shocks in one's sustainable career development despite practicing protean career practices. The study will provide insight for the young individuals to deal with unwanted situations, if happen, during their career paths. The study will help the individuals to make their career resilient even in the presence of unplanned events.

**Keywords:** Protean Career Attitude, Sustainable Career Success, Career Shocks



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Transformational Leadership and Work Engagement: Exploring the Mediating Role of Structural Empowerment and Moderating Effect of Psychological Contracts**

Wassaf Latif

Hailey College of Banking and Finance, University of the Punjab, Lahore

Tahreem Sadiq

Hailey College of Banking and Finance, University of the Punjab, Lahore

**ABSTRACT**

Previous studies indicated that transformational leadership and work engagement has a significant relationship and transformational leaders foster the work engagement by enabling the access to information, opportunities, support and resources. The purpose of this study is to investigate the mediating role of structural empowerment as well the moderating effect of psychological contracts in the positive relationship between transformational leadership and work engagement. For this purpose 210 responses were collected from a public sector bank. The results imply that transformational leaders promotes the work engagement by providing the empowered conditions for employees including opportunities to learn and develop along with adequate resources. Furthermore our findings indicates that the effect of psychological contract moderates the positive relationship between structural empowerment and work engagement. A number of contributions and practical implications are discussed.

**Keywords:** Transformational Leadership, Structural Empowerment Work Engagement, Psychological Contracts



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **The Impact of Selfie Posting Behaviour on Psychological Well-Being**

Areeba Saif

#### **ABSTRACT**

The first use of word “Selfie” recorded in 2002, and popular from 2013. There were 46.00 million social media users in Pakistan in January 2021. The number of social media users in Pakistan increased by 9.0 million (+24%) between 2020 and 2021. The number of social media users in Pakistan was equivalent to 20.6% of the total population in January 2021. In the light of Social Comparison theory, objective of the study is to investigate the impact of selfie posting behavior on Psychological well-being. There are not many studies that link selfie posting behavior with Psychological well-being Over the last decade. Online applications users are increasing day by day and peoples are searching more reliable apps as they need privacy.

The study is quantitative in nature, and the data has been collected through a structured questionnaire. The target population was social media users who post selfies on their profiles. The sample size was 300 based on the N:q rule. Data has been analyze through SPSS and PLS. There are not many studies that link selfie posting behavior with Psychological well-being Over the last decade. Online applications users are increasing day by day and peoples are searching more reliable apps as they need privacy.

**Keyword:** Fear of Missing Out, Social Media Stalking, online social comparison, selfie posting behavior, psychological well-being



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Encouraging Consumers to Reduce Plastic Use by Matching Image and Message**

Samrah Babar

#### **ABSTRACT**

This research investigates the role of emotion and message framing in reduce plastic consumption. This experimental study examines consumer intention; this research demonstrates that an image of plastic waste or an image of victim of plastic waste elicits emotions sadness, disgust or anger. Building on construal level theory, we show that an image of plastic waste or an image of victim of plastic waste are more effective in encouraging consumers to reduce their plastic consumption while combined with how “why” message (e.g., reasons to reduce plastic consumption) or “how” message (e.g., steps to reduce plastic consumption). The findings of this research highlight the importance of understanding discrete emotional responses to advertising images, especially in the context of reducing plastic consumption, will benefit social marketers and policy makers.

**Keywords:** Plastic waste, sadness, disgust, anger, message, construal level theory



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Economic Growth, Energy Consumption and Environment Relationship: A Panel Data Analysis of South-Asian Countries**

Syed Jaffar Abbas

University of Education, Lahore

Muhammad Munawar Hussain

University of Education, Lahore

Muhammad Salman

University of Education, Lahore

Sara Shahid

University of Education, Lahore

**ABSTRACT**

This study explores the linkage between economic growth, energy consumption and environment in South-Asian countries. Panel data of 8 South-Asian countries from 2006 till 2020 is collected from World Development Indicators (WDI). The present study applied fixed effect method of panel data estimation to find the relationship between economic growth, energy consumption and CO<sub>2</sub> emissions. The estimated results indicate that economic growth of these countries has found to be negatively affecting CO<sub>2</sub> emissions in the region. On the other hand, Energy consumption is positively affecting CO<sub>2</sub> emissions. It is recommended to policy makers of South-Asian countries to better invest in the practices that tend to mitigate the impact of CO<sub>2</sub> emissions on Environment.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Destination Image, Corona Fear and E-mavenism on Intention to Visit: A Mediating Role of Openness to Experience**

Sheraz Ashraf I

Tanzila Samin

NFC Institute of Engineering & Fertilizer Faisalabad

Government College University, Faisalabad

**ABSTRACT**

The purpose of this research is to study the impact of destination image, corona fear and emavenism on intention to visit with a mediation of openness to experience. The study explores how these variables affect the visitor's decision and how the tourist turnover evolve with these factors. The data has been collected from primary source, which is a pre-tested questionnaire. The questions were designed in 5 points Likert scale ranging from strongly disagrees to strongly agree. The sampling size is calculated through convenience sampling technique with confidence interval 95% and precision level of 5%. The analysis is done by statistical software SPSS version 23. Finally, findings show that destination image, corona fear and E-mavenism play a vital role in intention to visit while the openness to experience plays a moderate mediating role in shaping tourist opinion.

**Keywords:** destination image, corona fear, e-mavenism, intention to visit, openness to experience, tourist





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**This Study Examines the Effects Of Incremental and Radical Creativity on Both Product and Process Innovation by Considering the Moderating Roles of Knowledge Sharing in Intensity and Quality**

**ABSTRACT**

Primary research is conducted over 250 employees from service and manufacturing firms operating in Pakistan. Principal component analyses are conducted for the data reduction process, and multiple regression analyses are performed to test the research hypotheses. Knowledge sharing intensity and the quality of knowledge sharing moderate the effects of radical creativity on product and process innovation that predicts firm performance. Besides, the research presents the differences in the impacts of incremental and radical creativity with the moderations of organisational knowledge on product and process innovations between the service and manufacturing firms and implications for practitioners and researchers. This work represents a sample from manufacturing and service firms operating in Pakistan. Still, caution is the generalising specific results to other organisations in either service or manufacturing domains or manufacturing. While boosting creativity in organisations, knowledge sharing practices differ for sector domains. For service firms, knowledge intensity is essential, while knowledge quality is meaningful for manufacturing firms. This study contributes to the literature at the crossroads of organisational creativity and innovation twofold; the first is to investigate the combined effects of incremental and radical creativity on product and process innovation separately. The second is to examine the moderator roles of knowledge sharing practices of knowledge quality and intensity while predicting product and process innovation with incremental and radical creativity.

**Keywords:** Radical creativity, Incremental creativity, Product innovation, Process innovation, Knowledge quality, Knowledge intensity, Manufacturing firms, Service firms



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Explicating the Effect of Workplace Ostracism on Innovative Work Behavior Via Creative Self-Efficacy**

Alina Ahmad

Government College University Faisalabad

Sharjeel Saleem

Government College University Faisalabad

**ABSTRACT**

Fear Of Rejection From Others Is Deeply Rooted In Individuals, Which Has Increased The Scope Of Ostracism In Organizational Life. Resultantly, In The Past Two Decades, The Research In The Field Of Workplace Mistreatment Has Grown Exponentially Which Has Enhanced The Interest And Scope Of Researchers To Dig Out More Insights Into This Crucial Phenomenon Of Ostracism. As An Ample Amount Of Time Is Spent By The Employees At The Workplace, Employees Build An Innate Desire To Develop Social Relations At The Workplace To Satisfy Their Basic Human Need For Socialization. Ostracism Is A Powerful And Ubiquitous Stressor, Which Refers To The Extent Individuals Perceive They Are Being Ignored, Excluded, Banished Or Shunned By Others. Extant Research Has Revealed The Deleterious Impact Of Ostracism On Individual Attitudes And Behaviors, I.E., Emotional Exhaustion And Unsafe Behaviors. While There Is A Dearth Of Empirical Evidence On The Damaging Effect Of Workplace Ostracism On Constructive Workplace Behaviors, I.E., Innovative Work Behavior. Due To The Prevailing Turbulent Business Environment, Organizations Are Increasingly Relying On Employees' Innovative Work Behavior To Fulfill Increasing Demands And Changing Market Conditions. This Limited Focus On Ostracism Urges Researchers To Explore How The Negative Effect Of Workplace Ostracism Can Be Mitigated. Uncovering The Role Of Cognitive Control Strategies In Pain Reduction, This Study Focuses On The Intervening Role Of Creative Self-Efficacy To Explicate The Relationship Between Workplace Ostracism And Innovative Work Behavior. Data Were Collected Via Questionnaires From 513 Employees Working In The Public Sector Of Pakistan. Confirmatory Factor Analysis Was Performed With Amos 23.0 And The Hypothesized Relationships Were Tested With The Help Of Conditional Process Modeling. This Study Provides Insights Into The Underlying Mechanism Through Which The Adversity Of Workplace Ostracism Is Channeled Via Creative Self-Efficacy. The Findings Of The Study Supported Our Hypotheses And Confirmed The Intervening Role Of Creative Self-Efficacy. Finally, This Research Extends The Ostracism And Innovation Literature By Providing An Empirically Verified Model For The Public Organizations Of A Developing Country Like Pakistan. Theoretical Contributions and practical implications are also discussed.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Comparative Analysis of the Domestic and Foreign Islamic Banking Products and Impact on the Economic Growth of Selected Countries**

**ABSTRACT**

The objective of this study is to examine the product's contribution to banking growth. Islamic banking has shown huge progress and success all over the world, and many products have been made to support its growth. And the decomposition of pure technical efficiency (PTE) and scale efficiency (SE) of domestic and foreign Islamic banks from the selected South Asian Countries. The sample comprised of 30 domestic and foreign Islamic banks from Afghanistan, Bangladesh, India, Maldives, Nepal and Pakistan over the period of 2017–2021. This study employs the Data Envelopment Analysis (DEA) method to measure banks' efficiency. In addition, the parametric (t-test) and non-parametric tests also performed to examine the difference in the efficiency of the foreign and domestic Islamic banks. The results indicate that the domestic Islamic banks have exhibited higher efficiency levels compared to their foreign bank peers. In addition, the empirical findings from this study seem to suggest that the domestic Islamic banks have exhibited a higher efficiency levels for all three efficiency measures and consistent with home field advantage theory. The findings of this study are expected to contribute significantly to the regulators or policymakers, Islamic banking itself, investors and existing knowledge on the operating performance of the Islamic banking sector.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Attaining Mental Health & Happiness at Work through SHRM: Moderating Role of Employee Loyalty in Banking Sector**

Omer Mehmood Butt

University of Veterinary & Animal Sciences, Lahore

**ABSTRACT**

Research elaborates the significant relation between Sustainable Human Resource Management (SHRM) and future Success & growth of an organization. According to internal marketing theory, employees can be considered internal customers, where greater loyalty of employees have perform better, are more satisfied, feel happy and asset to organization. Employee loyalty is composed of an attitudinal and a behavioral element. Moreover, mental health and happiness at work plays a key role to remove stress and enhances the overall performance of employees and organization. Research lacks the relation of SHRM with mental health and happiness of loyal employees. This study investigates that how SHRM effect the mental health of loyal employees. Quantitative approach will be used with a sample size of 200 employee of the banking sector of Pakistan. The findings show that SHRM has positively affected the mental health & happiness at workplace & Employee Loyalty also moderates the significant relationship with them.

**Keywords:** Sustainable HRM, Mental Health, Happiness at Work, Employee Loyalty



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Customer Citizenship Behavior and Consequences of Psychological Contract: The Role of Ruminations in Consumers**

Dr. Muhammad Sheeraz

Bahauddin Zakariya University, Multan

Yaseen Aslam Khattak

Air University Islamabad

**ABSTRACT**

This study examines the relationship between psychological contract breach and brand retaliation with the mediating role of customer citizenship behavior and the moderating role of ruminations. This study aims to identify both positive and negative outcomes of psychological contract breach and when it turned positive for the brands and led to negative the brands. The study is quantitative, and the questionnaires were distributed in the Islamabad and Rawalpindi regions. A total of 364 questionnaires were used for the final analysis. The study figured out that psychological contract breach adversely affects customer citizenship behavior. Additionally, this study figured out that a psychological contract breach positively affects brand retaliation. However, this study also found a negative impact of customer citizenship behavior on brand retaliation. Moreover, rumination moderates the relationship between psychological contract breach and customer citizenship behavior. Lastly, rumination moderates the relationship between psychological contract breach and brand retaliation. Managers should ensure they fulfill their promises to customers as it increases Customer citizenship behavior and decreases brand retaliation. In this way, the customers will spread positive remarks about the brand and make repeat purchases. The study provides significant implications for clothing brands by finding out the significance of fulfilling claims made in the marketing communications of products and services.

**Keywords:** Psychological contract breach, Brand retaliation, Ruminations, Customer citizenship behaviour



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **The Impact of Innovation on Green Growth: Mediating Effect of Green Finance**

#### **ABSTRACT**

This study aims to explain the impact of technological and financial innovations on green growth. It explains the significance of financial and technological solutions in achieving environmental protection. Secondary data from 15 countries over the period of 30 years from 1990 to 2020 were collected for this study. The panel regression model was estimated by using different estimation techniques. The results have shown significant linkages among study variables including technological innovation, financial innovation, and green growth. These relationships were partially mediated by green finance. However, it was surprising to observe a statistically significant and negative relationship between green growth and green finance for the given sample. In addition, the robustness of these results was also checked by removing regressors from benchmark regression one by one. The findings of this study have two practical implications for policymakers. First, it emphasizes immediate action by relevant authorities or policymakers to address the global concern of environmental degradation for sustainable economic development. Second, it necessitates massive investments by relevant governments to increase their R&D expenditures for enabling their industries to the adoption of eco-friendly technologies. The novelty of this study lies in the fact that it explains the combined effect of technological and financial innovation on green growth with mediating effect of green finance.

**Keywords:** Green growth, Green Finance, Financial innovation, Technological innovation





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Configurations of Financing Instruments for Supply Chain Cost Reduction: Evidence from Pakistan's Banking Sector**

Rana Abubakar

**ABSTRACT**

Although supply chain finance (SCF) aims to optimize capital flows in the supply chain process, its effectiveness in improving cost performance remains controversial. From the perspective of efficiency motives, this study aims to explore how the combinations of SCF solutions and traditional financing instruments lead to supply chain cost reduction. A mixed-method approach is used in this study. First, using the fuzzy-set qualitative comparative analysis (fsQCA), we analyze 300 survey data across banking industries in Pakistan and identify the configurations of financing instruments for supply chain cost reduction. Second, to better understand the reasons behind each configuration, the authors conduct the content analysis on the interview data composed of 10 Banks Managers. The authors find that the effectiveness of SCF solutions for supply chain cost reduction is related to the focal company's use of traditional financing instruments. Moreover, compared with guaranteed financing, companies that use credit financing are more likely to adopt SCF solutions to achieve supply chain cost reduction. Finally, the effectiveness of SCF solutions in reducing supply chain costs varies greatly across industries. The study's findings provide insights for policymakers and SCF practitioners in the aspects of simplifying the SCF application. This study contributes to the current literature by addressing the theory–practice gap related to SCF. The study also provides new understandings of factors related to supply chain cost reduction, as well as factors that influence SCF adoption. Despite the major contributions, three aspects warrant further research. First, our findings may provide a limited understanding of how different financing instruments work, that is, the paths of different financing instruments. Second, our quantitative data are sources from banking industries in Pakistan. Hence, to increase the generalizability of our research, future work could examine our findings in a broader industry setting, as well as in other nations or developed economies. In addition, our qualitative data are directly provided by the bank, and the sample size covered by industry in qualitative research is also relatively small. These two limitations may incur the risk of sample selection bias and theoretical sampling. Third, in this paper, supply chain cost performance captures how the focal company evaluates its supply chain in reducing cost. More precisely, this type of cost reflects the focal company's total cost evaluation of each part of its supply chain, rather than the evaluation of some specific costs, such as capital costs and transaction costs. In addition, compared with directly using monetary value to measure supply chain cost performance, using managers' perception values may cause some ambiguity. Hence, there may be a gap between these perceived capital situations and the actual capital situations. In future research can conduct some mediation analysis built upon our configuration results to reveal the mechanism of different financing instruments. To increase the generalizability of our research, work could examine our findings in a broader industry setting, as well as in other nations or developed economies. Objective monetary data of listed companies can be used to enhance the measurement of supply chain cost performance. Finally, when measuring the capital situations of customers and suppliers, mainly



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

obtain data on major customers and upstream suppliers from the focal company. Future studies can consider different supply chain costs or collect data from supplier and customer sides.

**Keywords:** Supply Chain Finance, Cost reduction, financing instrument, Traditional financing instruments, Credit financing.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Overconfidence Bias on Investment Performance: A Moderating and Mediating Role of Financial Literacy and Risk Propensity**

**ABSTRACT**

This research aims to analyze how cognitive biases, including overconfidence, affect financial returns. The author delves deeper into the connection between Overconfidence bias and Investment Performance by analyzing the mediating and moderating roles of risk propensity and financial literacy, respectively. This study aims to examine the characteristics of individual investors in Gujranwala. This study is based on a Quantitative a; cross-sectional research design method considered a purely Positivism approach. This study uses a convenience Probability Sampling Technique. This study gathered information from 250 individual investors in Gujranwala through a standardized questionnaire. Several studies have shown a strong correlation between the two ideas. In addition, this combined proposed model is essential. To analyze the validity, reliability and normality have been taken through IBM SPSS. For testing the hypothesis, IBM AMOS analysis has been used in this study. As with any study based on hypothetical relationships, comparisons between this one and the current literature reveal similarities and anomalies in its findings. There were 250 participants in the sample, each of whom answered a lengthy questionnaire and provided data for the study's structural equation model. There is an essential link between these concepts, as evidenced by several research studies. In addition, this proposed model shows Mediation is significant, but moderation is insignificant. The first contribution of this research is to the growing body of literature on behavioral finance by investigating the effects of cognitive theory on overconfidence bias among individual investors, with the role of financial literacy and risk propensity as moderators and mediators, respectively. Second, this study provides insight into how individual investors spend in the market to earn more profit in the future. It is hoped that this research will be helpful to policymakers, practitioners' researchers, and investors of all stripes. Novelty came in the idea of this combined proposed model in Gujranwala. Overconfidence, risk propensity (willingness to take risks), and financial literacy (knowledge of personal finances) all play a role in individual investors' choices. Financial literacy as a moderator is the novelty of this research. The moderator effect further distinguishes this research from others.

**Keywords:** Overconfidence Bias, Investment Performance, Risk Propensity, Financial Literacy.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Work Life Balance and Training & Development on Employee Performance through Mediating Role of Organizational Decision-Making Policies**

Asma Tahir

University of the Punjab Gujranwala

Dr. Naveed Iqbal Chaudhry

University of the Punjab Gujranwala

**ABSTRACT**

The aim of this study is to explain the relationship between work life balance and training & development on the employee performance through organizational decision-making policies as a mediator. In our research we used Positivism philosophy. Quantitative data is used and analyzed through deductive approach through cross-sectional design. We collected data from 250 middle and high school teachers from some public and private schools of different cities in Pakistan (Punjab province) through survey instrument. Non-probability sampling technique, convenient sampling is used. IBM-SPSS 21 has been used for descriptive statistics and IBM-AMOS-21 to apply CFA and Path Analysis in SEM. Our study will help the various organizations other than educational institutions, managers, decision makers, CEOs, company's management and itself employees to increase their overall organizational performance. Our research will make a useful addition in literature as there is a new addition of variable that is organizational decision making policies as a mediator. We study the combine effect of work life balance and training & development through mediating role of organizational decision making policies. If upper management of educational sectors will arrange proper training and development programs by effective decision making policies for the teachers of middle and high schools, they will able to create a better work life balance because both work life balance and training and development have an impact on their performance to further increase their organizational performance. Most of the researchers studied a lot to create work life balance for employees in health care, manufacturing and banking sectors. According to the author's best knowledge no one explained the combine effect of work life balance and training & development through mediating role of organizational decision making policies for the employee performance of especially educational institutions (schools) in Punjab.

**Keywords:** Work Life balance, Employee performance, Training and Development, Organizational policies.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**An Assessment of Employees' Workplace Green Behaviors as a Result of Green HRM Practices with Mediating Role of Ethical Leadership**

Saba Akbar

Dr. Naveed Iqbal Ch.

University of Punjab Gujranwala

**ABSTRACT**

Current study aims to explore how an ethical leadership style can positively influence the relationship of Green HRM Practices and employees Green Behaviors towards these practices. The purpose to do this research is to inspect the conceptual model from employees of manufacturing firms who are familiar with environmental management concepts and practices. It was a Quantitative Research and deductive approach adopted. Data collected through survey-based questionnaires in a single short while using a convenient sampling technique. Our target sector was manufacturing units of Pakistan. Data collected from 300 employees working of manufacturing sectors. The Results & Analysis e.g., model fitness, convergent validity (AVE), composite reliability and discriminant validity (the square root of AVE) tested through AMOS. Findings: Results revealed that Employees Green Behaviors shows both direct and indirect positive also significant associations with Green HRM Practices through mediation of Ethical Leadership. Green HR plays an important role towards environmental sustainability. Researcher concluded this paper with inputs that Organizations should integrate green practices into their regular work environment, also they should arrange numerous awareness and development sessions to encourage employees to participate in green agenda. The Mediating role of Ethical leadership with Green HRM practices and green behaviors of employees is under researched phenomena, so to the best of author's knowledge this is the first research to introduce this new variable as mediator.

**Keywords:** Green HRM Practices, Employees Green Behaviors, Ethical Leadership Style



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Investigating the Significance of Strategic Agility to Organizational Performance with Mediating Role of Innovation Capability and Moderating Role of Organizational Learning Culture**

Habib ur Rehman

Muhammad Awais Sarwar.

University of the Punjab

**ABSTRACT**

The purpose of this study is to examine the relationship between strategic agility (SA) and organizational performance (OP). Innovation capability (IC) as a mediator and organizational learning culture (OLC) as a moderator between SA and OP.

Quantitative cross-sectional research design and a self-administrative technique used to collect the data. Data gathered from the teachers of educational institutes (EI) of Gujranwala, Pakistan. Structural equation modeling (SEM) used to conduct data The findings of this study showed that there is a significantly positive relationship between strategic agility and organizational performance. A significant mediating relationship of innovation capability and a negative significant moderating relationship of organizational learning culture between strategic agility and organizational performance. This research would be of great use for all kinds of EI adopting SA to understand how to utilize their IC to accomplish the purpose of strategy in an uncertain environment. Also, mobilizing the ability of OLC. It is proposed to future researchers do this research in different areas. Second, numerous other organizational capabilities (OC) that can be utilize for future This study will add value to the existing literature on strategy process, Dynamic Capabilities Theory (DCT) and organizational capabilities. According to researchers' knowledge, this study is one of the few to examine IC as a mediator and OLC as a moderator between SA and OP in EI. It opens a new field for research.

**Keywords:** Educational Institutes, Strategic Agility, Organization learning culture, Organizational Performance and Innovation capability.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Mediating Effect of Organization Citizenship Behavior and Employee Job Satisfaction on Relationship Between Work Life Balance and Organizational Performance**

Zainab Naeem

Dr.Naveed Iqbal Chaudry

University of the Punjab

**ABSTRACT**

The main idea of this paper is to highlight the importance of work life balance and organizational performance with mediating effect of organization citizenship behavior and employee job satisfaction.

This study involves relationship testing using sample of 350 front line employees of Corporate Sector of Pakistan. Human Resource Outcome indicators such as organization citizenship behavior and employee job satisfaction were tested as mediators along with work life balance and organization performance as independent and dependent variables respectively. AMOS and SPSS are used as analytical tool The findings revealed that there is positive significant relationship between employee work life balance and organizational performance. Employee job satisfaction and organizational citizenship behavior act as mediators that positively mediates the relationship between work life balance and organizational performance specifically front-line employees of corporate sector of Pakistan The sample size is considerably small. The sample data was collected at one point of time only. Data was collected from corporate sector of Pakistan only. Results cannot be generalized for all level of employees of an organization. Only employee job satisfaction and organization citizenship behavior were used as mediators but many other can be used as mediators that effect work life balance and organizational performance. The current study results help to further add knowledge for organization management to be more focused on employee work life balance to enhance organizational performance with understanding of mediating role of organization citizenship behavior and employee job satisfaction.

**Keywords:** Work life balance, organizational performance, employee job satisfaction and organization citizenship behaviour



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Effect of brand Experience and Brand Trust on Brand Resonance: A Study on Potential Customers**

Saqib Rehman

Nabeela Arshad

Lahore College for Women University

**ABSTRACT**

Brand resonance is a psychological bond between customers and their particular brand. It is used to create an intense and active relationships with customers. Brand resonance measures how a brand affects the customers' feel and think; also assist the degree at which the customers connect with their brand. To resonate the customers, brands are building the strong relations and trying their best to provide the quality products. The purpose of current study is to see, how brand resonance can be created with the help of brand experience through mediating effect of perceived brand quality and brand trust. These hypotheses are tested with the data set of 285 respondents associated with certain brands. The findings of the study revealed that the brand experience has a direct relation with brand resonance. The other two mediated hypotheses were also resulted in true and partially mediates the relationships. The findings of the study suggest that higher perceived brand quality and customers' trust on brand build the brand resonance and ensures their longer stay among its rivals. In future, the current model can be deployed with more appropriate mediator. Similarly, a moderator can be added for its better assessment.

**KeyWords:** Brand Resonance, Brand Experience, Brand Trust, Brand Perceived Quality



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Emotional Intelligence Affecting the Psychological Well-Being of University Students in Pakistan, The Moderating Role of Student-Teacher Understanding**

**ABSTRACT**

Emotional intelligence is crucial for analyzing, interpreting and understanding the equations and situations around a person. The rate of emotional intelligence (internal motivation, self-regulation, self-awareness, empathy, and social awareness) may vary from person to person. One may score high on the one construct of it while show below average results on the other. University students are on the peak point of their educational career and they are to enter the practical life ahead therefore, they should have develop, improve and regulate their emotions to achieve the psychological well-being. Student-teacher understanding helps to bring out the best from the students and its importance is undeniable. This study is aimed to investigate the extent to which the emotional intelligence and student-teacher understanding affect the mental or psychological health of university students in Pakistan. To analyze the hypotheses, data would be collected through questionnaires from about 250-300 sample. Regression, correlation and other useful measures are to be adopted for data analysis purpose. The expected results would show a highly positive association between EQ and psychological well-being of students whereas the student-teacher understanding would positively moderate the relationship between the independent and dependent variables.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Green Banking Practices in Developing Countries: Challenges and Prospects**

Dr. Ashfaq Ahmad

University of the Punjab, Lahore

Muhammad Faraz

University of the Punjab, Lahor

#### **ABSTRACT**

Green banking is an emerging phenomenon and getting importance across the globe. Green banking is associated with the provision of environment-friendly products. It is observed that green banking is flourishing in developed nations and advanced countries. However, underdeveloped countries including Pakistan have no exception for its implementation that is evident from the recent initiatives taken by State Bank of Pakistan (SBP) on the advice of Pakistan Environmental Protection Act-1997 (PEPA). SBP has framed guidelines for the implementation of green banking practices and requires its execution in the entire banking sector of Pakistan. This study investigates the Green Banking Practices adoption in Pakistan by exploring challenges and future potential for this important sector including its stakeholders. Data was collected from relevant segments including bankers, practitioners, policy makers and other stakeholders. Researchers approached the target audience and compiled/documentated their views, opinion and feedback regarding selected variables. Several statistical tools were used to investigate the potential benefits and expected challenges for the implementation of the green banking practices in Pakistan. Results indicate that banks are ambitious to implement the proposed guidelines for the green banking, however, numerous challenges were also reported due to non-availability of resources and other constraints. Findings indicate that green banking practices could influence the bank policies, daily operations, and decisions regarding investments for the adoption of green banking practices. This study could enhance the understanding of the relevant stakeholders regarding green banking especially in terms of potential benefits and possible challenges due to emerging contingencies.

**Keywords:** Green Banking, Green Banking Practices, Developing Countries, Challenges, prospects



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Do the Uncertain Events affect the Performance of Pakistan Stock Exchange in 21st century?**

Prof. Dr. Ashfaq Ahmad

University of the Punjab, Lahore

Muhammad Naveed Javed

University of the Punjab, Lahore

**ABSTRACT**

This study investigates the effect of selected events on the performance of Pakistan Stock exchange during a period of 2000 to 2022. This study attempts to fill the gap in literature by examining the outcomes of uncertain events especially associated with political chaos, technological changes and unwanted sudden events with reference to Pakistan Stock Exchange. Several events were selected regarding all three categories including assassination of Benazir Bhutto, Disqualification of Nawaz sharif, arrest of Prime ministers of Pakistan, political protest against opposition, disappointed the prime minister Imran khan by regime change operation etc. Similarly unwanted sudden events were considered for the study including earthquake of October 2005, flood in 2008, pandemic and recent flood etc. in the presence of technological factors. Data of all these factors obtain from different websites, newspaper, and Magazines etc. Secondary data was collected in this research from Pakistan stock exchange, books, newspapers and from other websites etc. several statistical tools were applied for data analysis to examine the role of selected events on performance of Pakistan Stock Exchange especially the KSE 100 stock index. Some of the selected events reveals the positive effect of the happenings, however, some of the events reported negative outcomes in terms of stock returns of the KSE-100 Index. It is observed that the changes in prevailing circumstances in Pakistan due to selected events could generate a significant impact on the performance of the stock market. This study could help the stakeholders for better decision-making regarding financing or investment (for investor) at right time.

**Keywords:** Political events, Uncertain events, Technological changes, Pakistan stock exchange.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Green Banking Practices Analyzing CSR and Customer Engagement through Digitalization in the Service Industry of Lahore: Mediating role of Intention to Adopt Green Banking Practices**

**ABSTRACT**

Global warming is one of the major issues in the world and now it is showing direct and indirect adverse impacts on agriculture, forestry system, water resources, tourism, animal health and human wellbeing. Currently Lahore is ranked among the top 10 countries because global climate changes have hit its atmosphere badly. Green go initiatives by the banks to adopt and implement environmental standards for lending would surely enable eco-friendly business practices and in return future generations would be beneficial. The purpose of this study is to find the impacts of green banking factors on CSR activities and customer engagement by the banks, however the intention to adopt green banking practices would mediate the relationship between the independent and dependent variable. The hypothesis of the research will be tested by performing quantitative research methods using questionnaires as a tool of data collection. Data would be collected from 250-300 respondents. The analysis of the study would be based on various tests on SPSS and AMOS used to generate the results and draw conclusions. The combination of these variables has not been tested before specifically for the service sector in Lahore, which is why the researcher believes this research to be a valuable edition in the existing body of literature regarding green banking. Sustainable environment is a huge concern nowadays therefore this type of study would surely have notable practical implications.

**Keywords:** Green Banking Practices, Corporate Social Responsibility, Customer Engagement, Intention to Adopt Green Banking.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Impact of “On-the-Job Training Courses on the Staff Performance” A Case Study of  
Cimla Walton Cantonment**

**ABSTRACT**

This study focuses on measuring the impact of “on-the-Job Training Courses” at a public sector organization on the employee’s performance and sustainable growth. The witness group selected through improbable accessible sampling method based on Cohen, Krejcie & Morgan tables and the data of over 100 senior officials with at least 10 years job experience and attended at least 2 training courses from four provinces was collected. The data was processed through descriptive and interpretative statistical data analysis. The findings indicated that on-the-job training courses directly affect the performance of the staff to a considerable extent, but the level of changes fall below the desired standard. Certain recommendations have been put forwarded for improvement of the performance of staff of Public Sector Organizations. The study offers questions and a number of optimization strategies for further considerations



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Business Angels and Entrepreneurial Intention of Management students in Pakistan**

Aneeza Khalid

University of Punjab, Gujranwala

Dr. Naveed Iqbal Ch.

University of Punjab, Gujranwala campus

**ABSTRACT**

This empirical paper's goals to analyze management students' entrepreneurial desire at Pakistani universities and to solicit funding from business angels.

This study used a deductive methodology and adhered to the positivist school of thought. Data was collected from 230 management students in Pakistan, 68% of whom were female and 33% of whom were male, and it was broken down using SPSS and AMOS using a questionnaire containing 23 items on a 5-point Likert scale. The main claim of this study is that perceived behavioral control, cultural norms, and entrepreneurial education all have a favorable impact on entrepreneurial ambition. Furthermore, there is a direct correlation between the ambition to launch a firm and obtaining business angel. This research can assist students who have company ideas but lack the necessary funding. It may supply students with motivation. However, it only provides a snapshot of university students in a single country at the time. The author did not highlight the study's qualitative component, which would have boosted the efficiency of mediators or moderators. This learning is momentous since it is the first one to look at how business angels and management students' entrepreneurial goals relate in Pakistan. This document gave the prospective business owners of Pakistan the obvious idea that they might start new associations with business angel's help.

**Keywords:** Entrepreneurial Intention (EI), Entrepreneurial Education (EE), Perceived Behavioral Control (PBC), Business Angels (BA), Theory of Planned Behavior (TPB), Social Norms



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Doing Good in a Risky Way: The Hierarchical Model of Social Entrepreneurship with Emotional Intelligence, Personality Traits, SE Intentions and SE Investment Risk-Taking**

Noor Shafique

University of the Punjab, Gujranwala Campus

Naveed Iqbal

University of the Punjab, Gujranwala Campus

**ABSTRACT**

The aim of this paper was to study the relationship between social entrepreneurship, personality traits, investment risk-taking and emotional intelligence in a hierarchical approach in Pakistani universities. The study is based on data collected from university undergraduates through personally administered questionnaires and analyzed on SPSS and AMOS. The findings indicate that Social-entrepreneurship is positively associated with personality traits, cognitive variables, and emotional intelligence (EI), and all these factors combined do influence SE risk-taking. There is also a considerable role of gender in defining different variables and differently influencing the SEI formation process in male and female groups.

The study has both theoretical and practical novelty. The study extended the literature by providing a new concept of emotions in the existing hierarchical model of the SEI formation process. This study will provide insight for the pioneers of a good stable startup as well as practitioners to use this concept in making their enterprise able to reach a sustainable position.

**Keywords:** Social entrepreneurship, emotional intelligence, SE risk-taking, personality trait, Theory of planned behavior (TPB).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Green Financing on Climate Change and Environmental Behavior Change,  
Mediating Role of Govt Fiscal Policies on Sustainable Development in Pakistan**

Hafiza Iqra Ijaz

University of the Punjab, Gujranwala campus

Dr. Naveed Iqbal Chaudhary

University of the Punjab, Gujranwala campus

**ABSTRACT**

This study aims to analyze the green financing (GF) approach for sustainable development (SD) in Pakistan via the govt fiscal policies (GFP) plays a mediating role in between the relationship of GF and SD, and impact of green financing on climate change (CC) and environmental behavior change (EBC) issuer. The paper uses structured questionnaires for hypothesis testing by using minimum sample size of 350 financial institution's employees, such as public banks of Pakistan. This paper highlights the two studies and relationships firstly green financing as an independent variable and sustainable development as a dependent variable while the govt policies plays a mediating role among them and secondly impact of green financing on climate change and environmental behavior change.

The data analysis results highlight three key conclusions: first, Pakistan's sustainable development is positively and significantly impacted by green financing. Second, improved government policies are a strong indicator of green financing for sustainable development in Pakistan. Thirdly, climate and EBC are negatively predicted by EBC. The causes of Pakistan's climate change and Environmental behavior change (EBC) challenges are also highlighted in this article. This study is helpful for financial managers and financial firms to bring a positive change in investment behavior in green financing, and it is also helpful for the government to concentrate on improving its fiscal policies. As this is a quantitative study that only covers a specific country Pakistan and results are generalizable in Pakistan, secondly, this study covers only public banks, future researchers may expand on it. These are the limitations and implication of this research work. This research contributes and ultimately goal towards the economic development and the climate effectiveness Positive transformation will result from the establishment of environmentally friendly initiatives and enterprises. Secondly Better govt policies will provide a path to citizens and opportunity to enhance their future and economic growth that is needs to modern trend and thirdly, the study of green financing on the climate change and EBC as new variable is novelty of this research work and govt policies as mediator in between green financing and sustainable development.

**Keywords:** Green Financing, Climate Change, Environmental Behavior Change, Sustainable Development, Govt Fiscal Policies



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Financial Literacy and Entrepreneurial Networking's moderating influence on the relationship between Financial Access and Firm Growth: An analysis of manufacturing industry of Pakistan**

Sehar Zaheer

University of the Punjab, Gujranwala

Naveed Iqbal Chaudhry

University of the Punjab, Gujranwala

**ABSTRACT**

Based on resource-based theory, resource dependence theory and social network theory, this study established and empirically evaluated a theoretical model to demonstrate the simultaneous effect of financial literacy and entrepreneurial networking on the relationship between financial access and firm growth. Cross sectional research design has been used to carry out this explanatory research, utilizing survey data from 332 Pakistani manufacturing enterprises selected through purposive sampling technique. Primary data was collected by approaching the owners and finance managers of these firms. Moderated hierarchical regression analysis was performed to test this relationship and its findings suggested that financial literacy significantly and positively affects the relationship between financial access and firm growth, while entrepreneurial networking has a considerable negative impact on this relation. This study unprecedentedly tested both of these moderators (financial literacy and entrepreneurial networking) in one picture frame and contributed to the existing body of literature on international entrepreneurship research. The study demonstrates the necessity for financial literacy that encourages effective and efficient use of finance to boost the economy. SMEs in emerging economies need to be financially literate in order to make rational judgments before utilizing financial services like loans.

**Keywords:** Financial literacy, entrepreneurial networking, financial access, firm growth, manufacturing sector.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Reasons for Tax Avoidance and Tax Evasion of Freelancers in Pakistan**

Sonia Imran

Naveed Iqbal Chaudhry

#### **ABSTRACT**

This study aims to find out the reasons and factors that are responsible for the tax avoidance and tax evasion of freelancers in Pakistan. A sample of 350 freelancers was chosen as respondents. Data collection was made using a 5-point Likert scale questionnaire that was originally adapted. The analysis was made in IBM SPSS and AMOS software. Reliability, Validity, and Regression analysis were conducted in IBM SPSS while confirmatory Factor analysis and Structural equation modeling were run in AMOS. Our results proved that factors and reasons causing tax avoidance and tax evasion of freelancers in Pakistan have a 75% strong effect and impact.

The research is for the freelancing sector and tax regulating bodies of Pakistan to raise awareness so they can strive together to increase revenue maximization and bridge the cold gap between taxation bodies and the freelancing sector. The research focuses and brings in the spotlight the freelancing sector as taxpayers in Pakistan as they're emerging as a powerful export force and sector in Pakistan

**Keywords:** Tax Avoidance, Tax Evasion, Freelancers, Taxation, Taxation Authorities, Taxes





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Influence of Social Media Marketing Activities on Brand Resonance**

Wajeeha Sarwar

Institute of Business and Information Technology

**ABSTRACT**

The aim of this study is to explore the influence of social media marketing activities (SMMA) on brand resonance (Behavioral loyalty, Attitudinal attachment, Active engagement, and Sense of community). This study also investigates the moderating effect of fear of COVID-19. The participants of this study involve social media users. A self-administered questionnaire was formulated to collect data from the respondents over shared social media platforms. We invited participants from all social media channels, including Facebook, Instagram, WhatsApp, LinkedIn and others. Data was collected through 315 respondents. SEM (structural equation modelling) was used to analyse data. The results showed that SMMA has a significant impact on creating brand resonance. The fear of COVID-19 moderates the relationship between SMMA and brand resonance. As a result of this study, organizations will be able to create brand resonance around the use of social media marketing campaigns in times of pandemic



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Mediating role of Social Cognitive Process in the Relationship between Transformational Leadership and Innovative Work Behavior: Evidence from Educational Sector**

Armeen Bukhari

Dr Naveed Iqbal Chaudhary

**ABSTRACT**

The motive of this paper is to examine the relationship between Islamic Marketing Ethics and Customer Loyalty, by processing the mediating role of Customer Satisfaction. Islamic marketing ethics is very important in every brand. Every brand must adopt all the policies of Islamic marketing according to their customer's wants and needs.

A structured questionnaire was developed to collect the data. This is quantitative research. A five-Likert scale was used in this questionnaire. A total 370 questionnaires were designed in which 350 responses were collected. The SPSS, AMOS and SPLS were used to analyze the data. According to the findings of this study, CS has a pragmatic and direct outcome on CL. In this study, CS acts as a mediator. The main conclusion is that CS is more closely related to CL. But the other independent variables have a collision on CS as well. This study found that IME has a significant influence on operating CS and CL. As a result, in order to develop long-term customer relationships, brands must focus on the virtuous context of Islamic marketing. Brands must revise their marketing practices and align their marketing tactics with ethical Islamic boundaries. This paper addresses an identified need by investigating how IME affects CS and CL. For the first time, CL is taken as a dependent variable to check its connection with IME.

**Keywords:** Customer satisfaction, Customer Loyalty, Islamic Marketing Ethics, Halal Market



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Mediating Role of Customer Satisfaction in the Relationship between Islamic Marketing Ethics and Customer Loyalty**

Hooria Attique

Dr Naveed Iqbal Chaudhar

**ABSTRACT**

The motive of this paper is to examine the relationship between Islamic Marketing Ethics and Customer Loyalty, by processing the mediating role of Customer Satisfaction. Islamic marketing ethics is very important in every brand. Every brand must adopt all the policies of Islamic marketing according to their customer's wants and needs. A structured questionnaire was developed to collect the data. This is quantitative research. A five-Likert scale was used in this questionnaire. A total 370 questionnaires were designed in which 350 responses were collected. The SPSS, AMOS and SPLS were used to analyze the data According to the findings of this study, CS has a pragmatic and direct outcome on CL. In this study, CS acts as a mediator. The main conclusion is that CS is more closely related to CL. But the other independent variables have a collision on CS as well Practical This study found that IME has a significant influence on operating CS and CL. As a result, in order to develop long-term customer relationships, brands must focus on the virtuous context of Islamic marketing. Brands must revise their marketing practices and align their marketing tactics with ethical Islamic boundaries. This paper addresses an identified need by investigating how IME affects CS and CL. For the first time, CL is taken as a dependent variable to check its connection with IME.

**Keywords:** Customer satisfaction, Customer Loyalty, Islamic Marketing Ethics, Halal Market



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Financial Literacy, Risk Tolerance with the Mediating role of Financial Self-Efficacy on Predicting Financial Behavior of Employees in Pakistan.**

Sana Saeed

Dr. Naveed Iqbal Chaudhary

**ABSTRACT**

This study aims to examine the impact of financial literacy (FL) and risk tolerance (RT) to envisage the financial behavior (FB) of employees in Pakistan. Additionally, it evaluates the mediating function of FSE between FL and FB as well as between RT and FB. Data collection for this study was done using a quantitative sampling method. Data collecting methods included online surveys, and convenience sampling was utilized to recruit 280 salaried-class investors to engage in research. An acknowledged underpinning theory of planned behavior is used in this investigation. Pearson's correlation, CFA and SEM analysis were used to test the study's hypothesis. IBM SPSS and AMOS-21 both were used to test the hypotheses of the study.

The results indicate that there is a positive and significant relationship between FL, RT on FB, which is the novel of this study. Furthermore, the results also show that FSE partially mediates the link between FL and FB. And also partially mediates the relationship between RT and FB in the employment sector of Pakistan. The outcomes of this study demonstrated the importance of financial self-efficacy, risk tolerance, and financial literacy for influencing financial behavior. Financial self-efficacy strengthens all relationships by inspiring and boosting employee confidence, while financial literacy increases the investor's capacity for accepting financial risk will help him decide how much risk he can take when making decisions. With the function of financial self-efficacy acting as a mediator, this study is the first to examine the link between financial literacy, risk tolerance and financial behavior in the context of Pakistan.

**Keywords:** Financial Literacy, Risk Tolerance, Financial Self-Efficacy, Financial Behavior



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Impact of CSR and Green Finance on Sustainable Financial Performance with the Mediating Role of Firm Reputation**

Minahil Pervaiz

Dr. Naveed Iqbal

University of the Punjab Gujranwala campus

**ABSTRACT**

This study aims to clarify the impact of corporate social responsibility and green finance on the Sustainable financial performance with the mediating role of firm reputation

This study adopts a quantitative method. Questionnaires were distributed to collect the primary data from employees of manufacturing firms in cross sectional period using the simple random sampling. The data was analysed through SPSS and AMOS. The results revealed that CSR and green finance has a positive association with firm reputation and sustainable business performance. This study also revealed that firm reputation has a positive relation with the sustainable business performance. The author collects the data about the influence of corporate social responsibility and green finance on the sustainable financial performance with the mediating role of firm reputation in manufacturing sector. So this study will help the future researchers in this field of study.

**Keywords:** Corporate social responsibility, green finance, firm reputation, sustainable business performanc



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Investigating the Significance of Strategic Agility to Organizational Performance with Mediating Role of Innovation Capability and Moderating Role of Organizational Learning Culture.**

Habib ur Rehman

Muhammad Awais Sarwar.

University: Punjab University Gujranwala campus.

**ABSTRACT:**

The purpose of this study is to examine the relationship between strategic agility (SA) and organizational performance (OP). Innovation capability (IC) as a mediator and organizational learning culture (OLC) as a moderator between SA and OP. Quantitative cross-sectional research design and a self-administrative technique used to collect the data. Data gathered from the teachers of educational institutes (EI) of Gujranwala, Pakistan. Structural equation modeling (SEM) used to conduct data. The findings of this study showed that there is a significantly positive relationship between strategic agility and organizational performance. A significant mediating relationship of innovation capability and a negative significant moderating relationship of organizational learning culture between strategic agility and organizational performance. This research would be of great use for all kinds of EI adopting SA to understand how to utilize their IC to accomplish the purpose of strategy in an uncertain environment. Also, mobilizing the ability of OLC. It is proposed to future researchers do this research in different areas. Second, numerous other organizational capabilities (OC) that can be utilize for future. This study will add value to the existing literature on strategy process, Dynamic Capabilities Theory (DCT) and organizational capabilities. According to researchers' knowledge, this study is one of the few to examine IC as a mediator and OLC as a moderator between SA and OP in EI. It opens a new field for research.

**Keywords** Educational Institutes, Strategic Agility, Organization learning culture, Organizational Performance and Innovation capability.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Workplace Ostracism and Employee Performance: A Moderated Mediation Model of Perceived Stress and Self-Efficacy**

**ABSTRACT**

Workplace ostracism which is regarded as “social death” is rampant in organization and has attracted significant research attention. Having connections with other people is one of the three basic human needs. Workplace ostracism research has examined numerous underlying mechanism to understand the link between workplace ostracism and employee performance. Ostracism has been suggested to be an interpersonal stressor. However research has not investigated workplace ostracism from a stress perspective. Therefore the current study investigated the mediating effect of perceived stress for the relationship between workplace ostracism and employee performance. Data were collected through self-reported questionnaire. The study sampled 250 full time employees in Lahore and regression analysis were conducted to test the mediation models. Mediation analysis found perceived stress mediated the relationship between workplace ostracism and employee performance when individuals perceived low level of self-efficacy. The findings suggest that workplace ostracism is a stressor and self-efficacy can mitigate the negative effects of workplace ostracism on employee performance.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Drivers of Entrepreneurial Intentions Among Business Students in Lahore, Pakistan**

Nadia hanif

University of Education

Noman arshed

University of Education

Zeeshan rafiq

University of Education

Syeda tabinda rubab

University of Education

**ABSTRACT**

According to research, entrepreneurial ambitions increase the likelihood of forming a business, but the Theory of Planned Conduct believes that intentions capture the motivational component of behavior and are dependent on Behavioral, normative, and control beliefs. The purpose of this research is to identify the factors that impact entrepreneurial ambitions among Lahore business students. The SPSS (Statistical Package for the Social Sciences) software is used to model structural equations. The findings, which are consistent with the majority of Pakistani nations as well as global trends, highlight the relevance of entrepreneurship education, support systems, and a favourable business climate in influencing entrepreneurial ambitions.

**Keywords:** Entrepreneurship; entrepreneurial intentions; theory of planned behavior; business students; Pakistan,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**“Establishing Diversity Climate: Role of Diversity Management Practices in Male Dominated Culture of Pakistan”**

**ABSTRACT**

This study has been necessitated by the fact that the shifting demographics in the world indicate that the workforce is increasingly becoming more diverse thus posing a managerial challenge. The forward-looking organizations are taking advantage of the diverse workforce to create a cohesive team whose talent is tapped and nurtured to tailor the organization to the market needs. The organization in Pakistan put the flag of diversity to get the PR, or sometimes in peer pressure, but the main ingredient which is “Inclusion” is still missing, and the main reason for the absence of Inclusion is Male dominance in the culture and also the acceptability of Diversity as the need of the time.

In this quantitative study survey-based data collection was done (n=200) from 10 organizations from different business sectors in Pakistan. Theories of Diversity Management were theoretical underpinning. This study indicates that in Pakistan diversity is taken as Male and Female ratio and the process in which the growth opportunities are given to female employees are very less. This is not only because of male dominance it also has impact of female’s willingness to pursue and build their careers. We can’t blame only females or males to make the balance, it’s reasonability of the society to accept this diversity as the need of time. This study also shed light on the diversity management practices adopted by the firms in Pakistan.

**Keywords:** Diversity management, Male dominated, Workforce, Shifting demographics, Inclusion, Culture, Willingness, Responsibility



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Effect of Employee Perceive CSR, on Organizational Effective Commitment through Mediating and Moderating Role in Banking Sector of Pakistan**

Hafiza Maham Sattar

Ahmad Muneeb Mehta

**ABSTRACT**

The purpose of this study is to investigate the effect of employee perceive corporate social responsibility (E-CSR) on organizational effective commitment (OEC) through the mediating role of organizational identification and moderating role of Islamic work ethics.

An exploratory mono-method approach was adopted for this deductive study. Data were collected by means of self-administered survey questionnaire, which was distributed among 300 employees and total of 280 complete responses were obtained from employees of banking sector. The proposed relationships were tested using structural equation modeling and AMOS analysis for mediation and moderation analysis. The results demonstrate that Islamic work ethic strengthen the relationship between CSR to employees and effective organizational commitment (EOC). Further organizational identification play a significant role in between the relation of E-CSR and EOC.

The findings also suggest that the literature should reconsider how CSR initiatives could pinpoint a specific dimension in developing loyal employees. This study also shows that employees are social actors who seek a corporate culture that best suits their self-interest. Hence, they are more committed to an organization particularly in respect to employee development and social harmony. This study adds to the literature by showing that not all CSR efforts would directly lead to employee effective commitment but mediating and moderating role also affect them. It shows that the CSR-to-employee play the most salient roles in nurturing a corporate culture that is perceived to focus on employee development, harmony, customers and innovation. Further study is recommended to associate IWE dimensions with organizational performance and customer perspective and may be conducted in different context.

**Keywords:** Employee perceive CSR, Islamic Work Ethics, Organizational Identification, organizational commitment. Banking industry.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Future Time Perspective and Employability: The Mediating Role of Job Crafting**

Ada Rehman

Sharjeel Saleem

Shazia Humayun

Government College University Faisalabad

#### **ABSTRACT**

The present research aims at providing clarity concerning the effect of future time perspective (FTP) on employability. We would focus on examining how FTP can positively associate with employability and how job crafting might play a mediating role between FTP and employability. We constructed a conceptual framework drawing on socioemotional selectivity theory (SST; Carstensen et al., 1999). This theory incorporates FTP which claims that a change in one's time perspective also affects how much emphasis one places on knowledge-related motives instead of emotionally satisfying motives. Job Demands–Resources (JD-R) theory and Lazarus and Folkman (1984) transactional stress theory are also relevant for employability. Prior studies defined FTP as “the ability to plan and organize activities beyond the present moment” (Suto and Frank, 1994). On the other hand, job crafting is “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (Wrzesniewski and Dutton, 2001, p. 179). Heijde and Van Der Heijden (2006) defined employability “as a set of competencies that allow the employee to obtain, keep, or create work.” Based on socioemotional selectivity theory, we anticipate that employees with focus on opportunity FTP will place a greater emphasis on learning and development. As a result, they will increasingly design their jobs to allow them to learn and grow by enhancing structural and social job resources and creating demanding job requirements (e.g., a new project), thus, engaging in promotion-oriented job crafting. Contrarily, employees with a focus on limited FTP will emphasize experiencing short-term positive emotions, and thus craft their jobs by minimizing hindering job demands that produce distress. We argue that limited FTP will be positively associated with prevention-oriented job crafting in terms of minimizing hindering job demands. Therefore, employees with limited FTP focus will strive to minimize hindering job demands. Based on the JD-R theory, job crafting behaviors will encourage the expansion of knowledge, abilities, and social connections of employees, enabling them to be adaptive and experience personal development that will ultimately help the individuals to increase their employability. We further argue that promotion-oriented job crafting i.e., crafting structural job resources, crafting social job resources and crafting challenging job demands, will positively associate with employability. Thus, the employees engaged in these crafting activities will be more employable. While employees who prefer short-term positive emotions would engage in prevention-oriented job crafting. Limited FTP individuals would, thus, craft their job by minimizing hindering job demands which are stress-inducing in nature. This would lead to lowered employability. We argue that employees who focus on opportunity FTP will be more employable in terms of occupational expertise, anticipation and optimization, personal flexibility, corporate sense, and balance via job crafting. They will be engaged in promotion-oriented job crafting, and these behaviors will lead to gaining employability. Contrarily, we argue that employees who focus on limited FTP will be less employable. They will be engaged in prevention-oriented job crafting and these behaviors would negatively associate with employability. We will conduct an empirical study. Data will be collected from different sectors of Pakistan via a structured questionnaire.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Social Networks During Personal-Disconnect; An Investigation into Pakistani Smes with Resource-Resilience-Performance Framework**

Usman Sarwar

Mubbsher Munawar Khan

University of the Punjab, Lahore.

**ABSTRACT**

This study aims to extend the body of literature by explaining the contribution of social networks in sustaining SMEs during the spread of COVID-19. Despite extensive research on networks and firms' performance, the existing knowledge fails to provide how social networks derive organizational performance, especially in the personal dis-contact phase in Pakistan. Particularly the role of resilience between social networks and firm performance has yet to be given attention. Hence, this paper establishes a Resource-Resilience-Performance framework to explain the role of social networks (resources) in making SMEs adaptive (resilience), leading to increased sustainability (performance) during a crisis: Under the deductive approach, this paper adopts a survey strategy wherein data is collected from 387 SME owner-managers. The time frame for data collection represents the third phase of COVID-19 in Pakistan. Data is collected using an adaptive version questionnaire. However, data has been analyzed with SmartPLS using Bootstrapping approach. According to the results, formal and informal social ties help SME owners get valuable information from their social circle. These help managers make the right decision during adversities. As a result, they get a competitive advantage over their counterparts. This study uses a snowball sampling technique because the complete and updated list of SMEs in Pakistan was unavailable during the Pandemic. Hence, the generalizability is questionable. In future, a directory of SMEs may be established, and a probability sampling technique may be use This paper contributes to the theory by adding to social network theory during the Pandemic. Likewise, it empirically proves the support of social networks during the Pandemic and guides managers to establish strong social ties as a proactive approach to dealing with future uncertainties. This research has established that social capital works as an immunity booster for SMEs working in developing countries, particularly Pakistan.

**Keywords:** Social Capital, resilience, SMEs performance, Pandemic.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Green HRM to Increase Employee Performance: A Quantitative Study of Pakistan's Banking Sector**

Aden Rehman

Naveed Iqbal

**ABSTRACT**

Despite a lot of empirical and theoretical evidence available on the subject related to the impact of Green HRM to increase the member of staff routine in the Banking sector of Pakistan. But the problem regarding the HRM to increase operative presentation remained unsolved. Economist and researcher trying their best to solve the puzzle regarding this. One of the main features of HRM is to increase employee performance(EP) to observe the association between variables in the Banking sector of Pakistan. There are six variables through presentation of the worker is retrained that are like; Recruitment & Selection (R & S), Training & Development (T & D), Reward & Compensation (R & C), Job Satisfaction (JS), and the Age & Gender. In this research study, one reliant on variable to measure individual performance and four self-governing variables include R & S, T & D, R & C, and JS as well as two control variables like Age and Gender. Primary data was collected from Pakistan's banking sector through questionnaires from 200 employees. SPSS software is used to analyze the data through Pearson's correlation and multiple regression. The findings of this research study suggested that variables such as Employment and Selection (E & S), T & D, as well as R & C and JS have significantly affect how a worker presents their work. The results of this research may be useful for policymakers of GHRM organization to decide the employee's performance(EP) which has significant relation to the three variables which is mentioned above.

**Keywords:** Performance, GHRM, Job satisfaction(JS), Employee satisfaction (ES), employee performance (EP), Training and Development (T & D), Recruitment and Selection (R & S), Rewards and compensation (R & C)



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Bridging Gaps in Employee Engagement and Customer Satisfaction to Usher Rebirth of New Era: A Case Of University of the Gambia.**

Abdul Aziz Cham

Dr. Shahid Khokhar

Prof. Dr. Shahid Muhammed Tufail

UE Business School,

**ABSTRACT**

Restoring organizational trust and hope to the hopeless community of the University of The Gambia. The research work investigates and test employee engagement and trust, service quality and customer satisfaction. The roadmap employs to garner data was primary design with sampling frame from the university employees and students. Besides, disproportionate sampling was used for the data collection, of which participants' responses were proportionately high and generated outcomes hope to usher in new waves of communal trust, loyalty and customer satisfaction. To this end, university's strategic goal of knowledge production, community service and national development hope to be attained.

**Keywords:** Employee engagement, Customer satisfaction, Organizational trust and service quality.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Influencer Marketing: The Impact of Influencer’s Source Credibility on Brand Awareness and Consumer’s Responses with the Moderating Effect of Influencer Type**

Areeba Nadeem

**ABSTRACT**

Due to the development in web 2.0, everything seems more integrated than ever before. With the progress in technology and communication devices, the use of social media and related technology has drastically increased in the last decade. The use of social media is expected to surge at much larger pace in the coming future. In today’s world, the use of social media platforms, such as Instagram, YouTube and TikTok, has become pretty common. It is now considered the hub of influencers that now even huge brands, having retail stores, rely on influencer marketing. Considering its importance in today’s world, the study is set to examine the impact of influencer marketing on brand awareness and consequently on consumer responses, as measured by impulse buying decision and purchase intentions. The relationship is moderated by the type of influencer i.e. micro, macro and celebrity influencer, believing that it would make a significant difference. For which, the data has been obtained from 138 respondents and the findings suggest that consumer brand awareness is enhanced if an influencer has certain set of expertise and has likable personality that consumers can resonate with. Meanwhile, it has also been found that influencer’s attractiveness and trustworthiness didn’t verify the objectives of this study. Consequently, consumers ability to recall and recognize the brand from their memory nodes influenced both, purchase intentions and their impulse buying decisions. Lastly, type of influencer managed to significantly influence the consumers’ impulse buying decisions, but not their purchase intentions.

**Keywords:**Influencer marketing, source credibility, consumer responses, brand awareness, impulse buying decisions, and type of influencer.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

# **FULL LENGTH PAPERS PROCEEDINGS**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Annexes of Carbon Dioxide (CO<sub>2</sub>) Emissions with Economic Growth and Corruption in South Asian Ethnic Group-Panel Analysis**

Sajjad Umer

University of the Punjab Gujranwala campus

Jamshaid Ahmad

Zain Ashfaq

University of the Punjab Gujranwala campus

**Abstract**

This study aims to examine the connectivity among carbon dioxide (CO<sub>2</sub>) emissions and indicators of economic growth along with the corruption index in the South Asian Ethnic Group (Pakistan, India, Maldives, Nepal, Sri Lanka, Bangladesh, and Bhutan). Panel data for nine years from 2011 to 2019 of the South Asian Ethnic Groups was collected from World Bank, World development indicators. Variables used in this study are carbon dioxide (CO<sub>2</sub>), GDP, inflation rate, Industry, and Corruption. Stata 14.2 software was used to produce statistical outcomes in this study. Multiple regressions, the Hausman Technique resulting in random effect with Breusch and Pagan Lagrangian multiplier test for random effects, were used in this exploration. Findings of this research direct that GDP has a considerable positive and significant impact on carbon dioxide (CO<sub>2</sub>) emissions, while the inflation rate has a negligible effect on carbon dioxide (CO<sub>2</sub>) and that both industry and corruption have negative and significant impacts on carbon dioxide (CO<sub>2</sub>) emissions. Carrying a study on a panel of South Asian Ethnic Group not only advances the previous literature but also depict a clear picture of economic growth and carbon dioxide CO<sub>2</sub> emissions. The planned research will help international consultancies, industrial parks, governmental organizations, and research & development bureaus to create better assessments to control pollution management. The researcher incorporated the corruption variable in this model to stimulate complete consideration and decision-making. One of the study's limitations is that author only used carbon dioxide (CO<sub>2</sub>) as a dependent variable, even though SO<sub>2</sub> and lead are also components of environmental pollution. This study intends to prove that corruption affects the correlations between economic growth and carbon dioxide (CO<sub>2</sub>) emissions in South Asian Ethnic Group countries.

**Keywords:** Carbon Dioxide (CO<sub>2</sub>), GDP, Inflation rate, Industry and Corruption.

**Introduction**

One of the main obstacles to global sustainability is the reduction of carbon dioxide (CO<sub>2</sub>) radiation which pollutes the atmosphere where industrialization-driven economic growth is also essential.

Before 1980, more emphasis in research was given to financial performance measures of the incorporated sector and important issues of corporate social responsibility especially (CSR) were neglected which were essential to participate in the global competitive atmosphere. After 1980, non-financial performance measures like CSR including environmental factors such as reduction in CO<sub>2</sub> emissions got a lot of attention for taking a worldwide competitive advantage (Allnaam, 2017).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The link between growth and CO<sub>2</sub> emissions has drawn more attention since both have emerged as critical issues. However, few studies are trying to examine this relationship through various econometric methods, engaging various pools of different countries, and coming to the resulting growth plays an imperative role in the determination of CO<sub>2</sub> emissions (Naseer Ahmed, 2021).

The industrial component of an economy produces highly automated and mechanized materials (Lasi, 2014). Industrial sectors are mostly responsible for CO<sub>2</sub> emissions. The expansion of heavy industry and the country's ubiquitous development model has increased the demand for fossil fuels, particularly coal mining in the industrial sector (Dengke Chen, 2018).

The process of persistently rising prices, or more accurately, the process of persistently declining money value, is known as the inflation rate. Its significance results from money's pervasiveness in the modern economy (Parkin, 1977). In the realm of business, the inflation rate is unavoidable and has an impact on both developed and emerging countries, either unfavorably or favorably. It is well understood philosophically and experimentally how the inflation rate and CO<sub>2</sub> are related. While quantifying changes in the inflation rate may be challenging, a reliable forecast is essential for monetary policy (M A Musarat, 2021).

South Asian Ethnic countries mainly Pakistan, India, Sri Lanka, Bangla-Dash, Maldives, Bhutan, and Nepal are closely similar according to their political economy, social issues, working environment, production methods, and facing non transparency issues like corruption (Mehmood, 2021).

There are different schools of thought that argue about corruption and pollution of the environment. Some argue that corruption and emissions of carbon dioxide (CO<sub>2</sub>) have significant effect other argue that both variables corruption and emissions of carbon dioxide has not to impact on each other (Habib Sekrafi, 2018).

According to the estimation of the World Bank, one trillion dollars are being paid in the context of bribes each year. OECD, World Bank, and UNs have a common goal to overcome the hot issue of corruption and focus on this issue in their agendas (The World Bank, 2020).

Although there is comprehensive work on the relationship between economic growth and carbon dioxide emissions, however, few studies take the role of corruption in this relation and a recent study is an attempt to show that the element of corruption shows its crucial role in the relationships of economic growth with emissions of CO<sub>2</sub> in South Asian Ethnic Group.

To encourage more thorough thought and decision-making, the researcher included the corruption variable in this model. Countries of this South Asian Ethnic Group are Pakistan, Bangladesh, Nepal, Bhutan, Maldives, Sri Lanka, and India.

This study's results will support existing literature and, by producing better appraisals to convey pollution management, the proposed research will benefit worldwide consultancies, industrial parks, governmental organizations, and research development bureaus. The remainder of this article comprises a literature review in the impending sections, followed by a discussion of the study methods in the next section. The fourth portion of the study includes results and discussion, and the last part contains the study's conclusion.

## Literature Review

The first empirical examination by Grossman (1991) an expanding body of writing tried the relationship between economic development and ecological pollution. According to their results,





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

the environment will be polluted with the rise in income in those countries which are considered poor according to world development indicator and CO<sub>2</sub> will be lower in rich countries with an increase of income in those countries.

There are three different themes on growth and Carbon dioxide emissions; first school of thought says that there is an inverted U-Shaped graphic link between economic growth and Carbon dioxide emissions. CO<sub>2</sub> increases in the initial stages but after the increase in income, it reduces (Shafik *et al*, 1992).

The second school of thought believes that high CO<sub>2</sub> emissions globally are due to the consumption of energy (AraBegum, 2015). The last third group says that there is a causal association between economic development and pollution (Ozturk, 2015). Simon Kuznets, a famous economist presented the concept of the Environmental Kuznets Curve (EKC) in the 1950 decade, which supports the first school of thought as discussed above inverted U-Shaped Curve about CO<sub>2</sub> emissions and growth.

According to (EKC) studies, CO<sub>2</sub> emissions will increase with the increase in income in developing countries. A few investigations have discovered proof supporting the presence of an EKC for CO<sub>2</sub> like Dinda and Stern (2004).

Furthermore, in Tunisia Mhenni (2005) conducted longitudinal (1980-1991) tests, and that study was based on the EKC hypothesis by "General Method of Moments (GMM)" with testing the different chemicals, for example, Carbon dioxide emissions, fertilizers concentration. He suggested that the EKC hypothesis is not supported by results. In the same direction but with a different outcome, work conducted by Opoku (2013) studied the linkage between economic growth and CO<sub>2</sub> emissions in Turkey. Secondary data was used by applying the Johansson Multivariate Test of integration; results show that there is a negative association between energy consumption and discharge of pollution in the long run and an inverse relation in the short run.

In this regard, a study conducted by Fodha and Zaghdoud (2010) explored the association between economic growth and chemical emissions including Carbon dioxide and SO<sub>2</sub> and their study was in Tunisia on time series data by using cointegration. Their results show that economic growth cannot be suffered by investing in pollution reduction policies. Similarly, Juanky (2010) also conducted the study in 36 high-income countries, and in this study, he examined the casual association between economic growth.

On the other hand, studies conducted by Richmond (2006) and Agras (1999) contributed to this context and both studies claimed that there is an insignificant association between economic growth and pollution emitting gases. But there is some evidence of linear associations between economic growth and Carbon dioxide emissions are significantly positive (DeBruyn, van den Bergh and Opschoor, 1998)). In contrast to this study, a study conducted in Austria, results showed that there is no association between CO<sub>2</sub> emissions and economic growth, there is no effect of CO<sub>2</sub> emissions by increasing or decreasing economic growth (Friedl and Getzner, 2003).

Omri (2013) utilized cointegration in China to research the connections between CO<sub>2</sub> emissions, energy consumption, and economic development. Outcomes of the examination demonstrate that economic progress prompts a more elevated amount of energy utilization and CO<sub>2</sub> emanations with an input impact. This result is incompatible with the outcomes of (Zhang, 2016).

Corruption is the misuse of public office for one's gain. In actuality, fixing misuse typically



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

entails upholding the law. This definition of corruption includes enticement, softeners in public procurement, the selling of public assets by state officials, etc., and the improper use of public resources (Svensson, 2005).

There are two views on corruption and CO<sub>2</sub> emissions association. For instance, Lopez and Mitra (2000) tested the usability of corruption with the rent-seeking behavior of governments in the association between economic growth and pollution they claimed as "corruption is unlikely to slow down the presence of an inverted U-shaped EKC." In this argument, Lim *et al.* (2010) used the data of 151 industrialists and non-industrial from eight countries, their study showed that there is a positive association between corruption and environmental sustainability.

A study was conducted on G-20 countries where authors used 06 indicators of governance measures including corruption by taking data from 15 years from 1996-2010 of world governance indicator of the World Bank concluded that good governance always not resulted making lower polluted environment, emissions on CO<sub>2</sub> is independent of corruption (G.Tzeremes, 2013).

Al-Mulali (2015) stated as "both governance and control of corruption help to reinforce environmental regulation and induce industry to shadow this regulation". Good governance can improve environmental issues by promoting political freedom and public awareness. In the context of corruption, corruption plays a dominating part in developing environmental policies and regulations.

The later school of thought examined the inverse influence of corruption on CO<sub>2</sub> emissions. For example, a study conducted by Lantz and Feng (2006) in 94 different countries claimed that carbon dioxide emissions can be influenced in direct and indirect ways by corruption. An indirect effect means there is a negative effect of corruption on CO<sub>2</sub>, and this negative association has more value than a direct or positive association between corruption and CO<sub>2</sub> emissions. Leito (2010) explained the different degrees of corruption in different countries. He stated as "different levels of corruption practices and the different turning points in income levels suggest a different dimension of income-pollution paths across countries". Another study was conducted on MENA countries and the results showed that corrupt economies tend to have negative contributions (Goel and Ram, 2013).

Recent work conducted by Zhang (2016) examined the positive and negative impacts of corruption and carbon dioxide emissions and the results demonstrated that carbon dioxide emissions will be reduced by corruption. In this context, another scholar claimed that corruption has a positive association with pollution (ORCID, 2022)

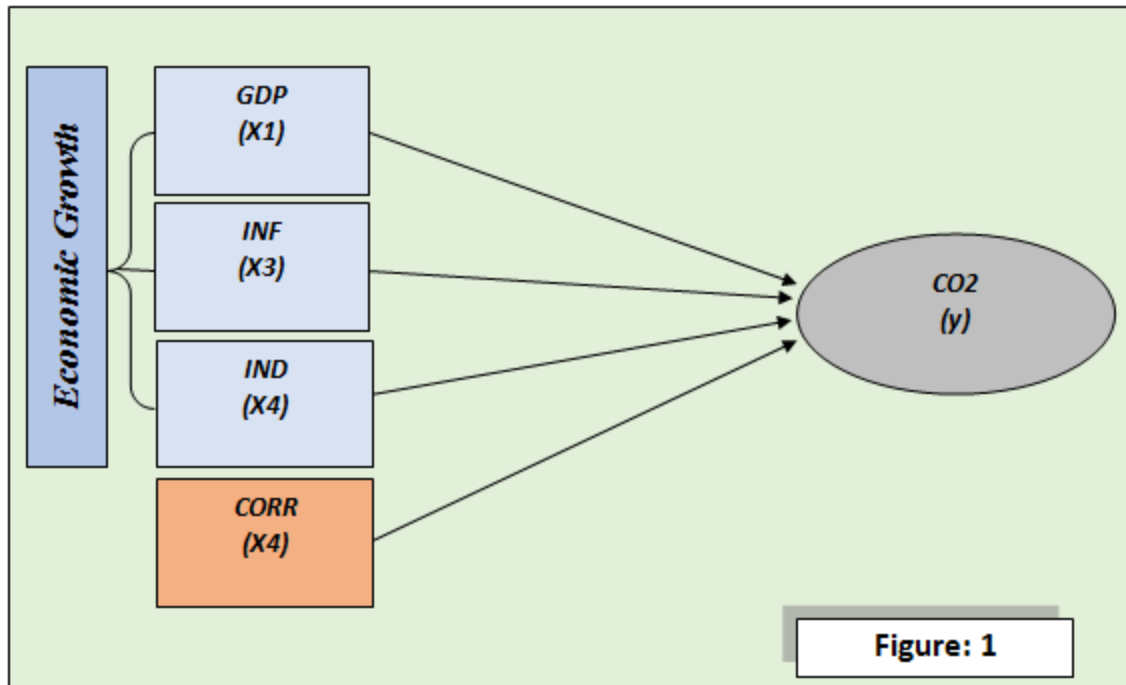
The effect of FDI and industrial expansion on CO<sub>2</sub> emissions in Pakistan from 1980 to 2020 is attempted to be determined. The ARDL econometric approach is employed to conduct the analysis. Results indicate that FDI, industrial value addition, and energy depletion all negatively affect CO<sub>2</sub> emissions (AsifMehmood, 2022).

Zhang U (1998) shows the positive effect of the inflation rate and the negative effect of GDP and unemployment on carbon dioxide emissions. Overall observing, all above discussed studies have developed inconsistent outcomes in the context of economic growth and CO<sub>2</sub> emissions. CO<sub>2</sub> emissions are directly identified with energy utilization, which is a fundamental factor in the global economy both for generation and utilization. It is declared that the nature and direction of causality may differ from one nation to the next.

In this context, the main aim of this paper is to find out the relationship between economic growth and pollution in the South Asian Ethnic Group. This study will also show the role of corruption in explaining the relationship between economic growth and emissions of pollution in the environment.

### Conceptual Framework

Based on above discussed literature below given framework can be formulated:



### So following hypotheses can be established:

$H_{01}$ = GDP has significant impact onCO2 emissions.

$H_{02}$ = INF has significant impact onCO2emissions.

$H_{03}$ = IND has significant impact on CO2emissions.

$H_{04}$ = CORR has significant impact onCO2emissions.

### Econometrics Models:

In above mentioned framework as dependent variable used is CO2 emission and four independent variables GDP, Inflation Rate, Industry & Corruption were used to explore the mutual relationship of these variables.

### So regression equations that can be developed are:

$$CO2 = \alpha + b1GDP + b2INF + b3IND + b4CORR + e$$



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### Methodology

Secondary data was used to procure the statistical outcomes; data is panel since it consists of seven countries and nine years. Data on CO<sub>2</sub>, GDP, inflation rate, industry, and corruption was taken from world development indicators of WORLD BANK; data on these variables was available for the years 2011 -2019. Corruption index was also taken from the same source: CPIA where the rating of countries is given with a scale of 1 to 6, 1 indicates low corruption and 6 indicates high corruption. Multiple regression analyses are applied with the help of STATA to illustrate the results.

### Results and Discussion

In this section first of all researchers provided descriptive statistics obtained through different analysis tools, Followed by trend lines in second part of this section. And regression results of both developed models are provided in last part of the section.

Table: 1 is illustrating descriptive statistics, only purpose of this analysis is presentation of data after necessary calculations for clarification of its characteristics. The quantifications researchers used in this research for descriptive analysis are minimum, maximum, mean and standard deviation.

**Table: 1 (Descriptive Statistic)**

Variable	Obs	Mean	Std. Dev.	Min	Max
CO <sub>2</sub>	63	1.23	.97	.19	4.07
GDP	63	2987.02	2628.85	797.81	10561.61
Inflation rate	63	5.97	3.02	-.13	11.91
Industry	63	24.04	9.96	8.05	43.36
CRPTN	63	3.16	.62	2.5	4.5

Descriptive statistics illustrating that there are 63 observations of each variable because there are 07 countries and 09-year data taken for analysis. Maldives has the highest CO<sub>2</sub> emissions at 4.07, and Nepal has the lowest at 0.192. These findings are also consistent with the GDP, where the GDP data similarly shows a significant variation of SAARC countries excluding Afghanistan, where the highest GDP value of 10561.614 is also from the Maldives, and the lowest GDP value is related to Nepal at 797.814. CO<sub>2</sub>, GDP, inflation rate, industry, and corruption have respective mean values of 1.23, 2987.02, 5.972, 24.04, and 3.167. Corruption results show that 2.5 is the lowest level related to Pakistan, while 4.5 is the highest level from Bhutan on a scale of 6. Bhutan has the highest industrial value, while the Maldives has the lowest. The -0.13 indicates the deflation in the Maldives in 2018. The Maldives also had the highest inflation rate during this period in 2011.

### Assumption Testing

Multiple Linear regression models were used for testing of hypotheses. Since data is in panel form so first of all author applied “Hausman test” to find out which effect “fixed or random” would be more appropriate for performing regression analysis. “Breush & Pagan LM test” was also applied for selecting between Random effect & OLS.





# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

To check the serial correlation “Wooldridge test for serial correlation in panel-data Model” this indicated the presence of serial correlation. Issue of serial correlation was rectified through appropriate remedy.

**Table: 2 Hausman (1978) specification test**

	Coef.
Chi-square test value	3.073
P-value	.546

### Results interpretation

After performing all earlier discussed tests outcomes of random effect model were selected to portray as it was the best fit model fulfilling all above mentioned assumptions. Regression results of both models are given below:

**Table: 3 (Regression Results)**

CO2	Coef.	St.Err.	t-value	p-value	[95% Conf	- Interval]	Sig
GDP	.0003	0	10.38	0	0	0	***
Inflation rate	-.003	.007	-0.41	.685	-.017	.011	
Industry	-.022	.008	-2.76	.006	-.037	-.006	***
CRPTN	-.247	.109	-2.27	.023	-.46	-.034	**
Constant	1.387	.513	2.71	.007	.383	2.392	***
Mean dependent var	1.233		SD dependent var	0.978			
Overall r-squared	0.735		Number of obs	63.000			
Chi-square	274.176		Prob > chi2	0.000			
R-squared within	0.834		R-squared between	0.733			

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

Results given in table: 3 show that if there is a 1 unit increase in GDP will cause an increase of 0.003 units increase in CO2. So, it can be concluded that GDP encourages affordability, and economic development results stimulate CO2. Affordability increases viable pollution and commercial activities, which increases the danger of climate alteration by generating CO2 radiation. Financial evolution also assists consumers in bargaining superfluity goods like automobiles, microwaves, and exhausts, the use of which is harmful to the environment due to an increase in CO2 emissions. (Hongying *et al.* 2022)

Inflation rate results show no association between CO2 emissions and inflation rate because results are insignificant that accept the 2nd null hypothesis. Studies show that increasing and decreasing the inflation rate does not affect CO2. This result is round about the same as the study of Andryan *et al.* (2021) because the researcher coefficient was near zero but different from Sadam Hussain *et al.* (2019)

Moreover statistics in above given table show that the industry's relation with CO2 is inversely integrated. So, the third hypothesis also stands accepted. It shows if the industry increases, then it will decrease CO2. Results show that if there is a 01% increase in industry, there is a 0.02% reduction in CO2. This strange consequence is like a study by Jichang Dong *et al.* (2020). A few



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

techniques for dropping CO<sub>2</sub> from the industrial segment comprise energy proficiency, fuel substituting, pooled temperature and power, utilizing renewable energy, more effectual material use, Hydrofluorocarbon usage, and reprocessing (Centre for Climate and Energy Solutions, 2021)

Fourth hypothesis results show that corruption's relation with CO<sub>2</sub> is also inverse. It shows if corruption increases will be a decrease in CO<sub>2</sub>. With the addition of 1% corruption, there is a 0.24% decline in the level of CO<sub>2</sub>.

High ranks of bribery harm the improvement procedure by impairing the economic system's enactment, which delays the method of obtaining the appropriate status of development and, as a result, inferior levels of CO<sub>2</sub> radiation and upper greenhouse worth (Nejat, 2019)

These results are consistent with those of Zhang *et al.* (2016) and Asif Mehmood (2022).

After running regression, post-test Breusch and Pagan Lagrangian test for random effects was used.

**Breusch and Pagan Lagrangian multiplier test for random effects**

$$CO_2[ID,t] = Xb + u[ID] + e[ID,t]$$

**Table: 4**

	Var	SD=SQRT(Var)
CO <sub>2</sub>	0.9278	0.9632
E	0.0107	0.1036
U	0.3963	0.6295

Test Var(u)= 0

chibar2(01) = 243.59

Prob >chibar2 = 0.0000

As per above given test H<sub>0</sub> is rejected and concluded that panel effects exist because prob>chibar2.

**Conclusion**

In this study, the researcher tried to explore the relationship between carbon dioxide (CO<sub>2</sub>) emissions with other independent variables GDP, Inflation rate, industry, and corruption in the Panel of South Asian Ethnic Group. Data used in this study was received from World Bank, World Development Indicators comprised nine years from 2011 to 2019. Countries include Pakistan, India, Nepal, Bhutan Sri Lanka, Maldives, and Bangladesh. Results show that corruption and GDP have a positive effect on emissions of carbon dioxide (CO<sub>2</sub>), and industry has a inverse impact on environmental pollution.No relationship was found in the inflation rate on carbon dioxide (CO<sub>2</sub>).

This study provides a clear picture of growth and CO<sub>2</sub> emissions to research a panel of South Asian Ethnic Groups. The researcher contribution to existing literature explains this is the first study on the South Asian Ethnic Group where the relationship of emissions of carbon dioxide (CO<sub>2</sub>) is checked by taking economic growth indicators and the role of corruption. The results of this study matched by the results of Jichang Dong *et al.* (2020), Antonakakis *et al.* (2017), Pinjie Xie (2019), Andryan Setyadharmal (2021), Zhang *et al.* (2016) and Asif Mehmood (2022). This research is an addition to existing literature supporting previous existing results.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The suggested study will aid international consultancies, industrial parks, and governmental organizations, along with research development bureaus, by creating better assessments to carry out pollution management. The researcher incorporated the corruption variable into this model to promote complete consideration and decision-making.

The limitation of this study includes the author taking CO<sub>2</sub> as the only dependent variable as a proxy of environmental pollution, whereas SO<sub>2</sub> is also the main element of environmental pollution. Other economic growth indicators have been taken only by Industry, GDP, and inflation rate. Further study may be conducted by using extra variables of economic growth. All the above variables data is received from World Bank, World Development Indicators where these selected countries' past data is not there due to missing some variables in some years. Future researcher may use more proxies for pollution such as SO<sub>2</sub> and lead as dependent variables other than CO<sub>2</sub>.

## References

- Agras, J., and Chapman, D. (1999). A dynamic approach to the Environmental Kuznets Curve hypothesis. *Ecological Economics*, 28(2), 267-277.
- Alfred A. Hauga, M. U. (2019). The role of trade and FDI for CO<sub>2</sub> emissions in Turkey: Nonlinear relationships. *Energy Economics*, 81, 297-307.
- Allnaam. (2017). Using a Balanced Scorecard Approach to Measure Environmental Performance: A Proposed Model. *International Journal of Economics and Finance*.
- Al-Mulali, U., and Ozturk, I. (2015). The effect of energy consumption, urbanization, trade openness, industrial output, and the political stability on the environmental degradation in the MENA (Middle East and North African) region. *Energy*, 84, 382-389.
- Andryan Setyadharma<sup>1</sup>, S. O. (2021). Does Inflation rate Reduce Air Pollution? Evidence from Indonesia. *E3S Web of Conferences* 317, 01068, (pp. 1-8).
- Ang, J. B. (2007). CO<sub>2</sub> emissions, energy consumption, and output in France. *Energy Policy*, 35(10), 4772-4778.
- Ang, J. B. (2008). Economic development, pollutant emissions and energy consumption in Malaysia. *Journal of Policy Modeling*, 30(2), 271-278.
- Antonakakis, N. C. (2017). Energy consumption, CO<sub>2</sub> emissions and Economic growth: An ethical dilemma. *Renewable and Sustainable Energy Reviews*, 808-824.
- Asif Mehmood, A. A. (2022). Impact of industrial production and fdi on co<sub>2</sub> emissions in pakistan. *Pakistan journal of economic studies*, 257-272.
- Centre for Climate and Energy Solutions. (2021). Retrieved from <https://www.c2es.org/content/regulating-industrial-sector-carbon-emissions/>
- Chebbi, D. N., Nekhili, M., and Siala, A. W. (2009). Free cash flow, governance et politique financière des entreprises françaises. *Finance Contrôle Stratégie*, 12(1), 5-31.
- Danish, B. Z. (2018). The moderating role of corruption between economic growth and CO<sub>2</sub> emissions: Evidence from BRICS economies. *Energy* (2018).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

DeBruyn, S. M., van den Bergh, J. C., and Opschoor, J. B. (1998). Economic growth and emissions: reconsidering the empirical basis of environmental Kuznets curves. *Ecological Economics*, 25(2), 161-175.

Dengke Chen, S. i. (2018). Industrial agglomeration and CO2 emissions: Evidence from 187 Chinese prefecture-level cities over 2005–2013. *Journal of Cleaner Production*, 993-1003.

Dinda, S. (2004). Environmental Kuznets curve hypothesis: a survey. *Ecological economics*, 4(49), 431-455.

Fodha, M., and Zaghdoud, O. (2010). Economic growth and pollutant emissions in Tunisia: an empirical analysis of the environmental Kuznets curve. *Energy Policy*, 38(2), 1150-1156.

Friedl, B., and Getzner, M. (2003). Determinants of CO2 emissions in a small open economy. *Ecological economics*, 45(1), 133-148.

G.Tzeremes, G. E. (2013). Carbon dioxide emissions and governance: A nonparametric analysis for the G-20. *Energy Economics*, 110-118.

Goel, R. K., and Ram, R. (2013). Economic uncertainty and corruption: Evidence from a large cross-country data set. *Applied Economics*, 45(24), 3462-3468.

Grossman. (1991). Environmental impacts of a North American free trade agreement. *National Bureau of Economic Research*, 70-89.

Habib Sekrafi, A. S. (2018). The effect of corruption on carbon dioxide emissions and energy consumption in Tunisia. *PSU, Research review Emerald*, 81-95.

Halicioğlu, F. (2009). An econometric study of CO2 emissions, energy consumption, income and foreign trade in Turkey. *Energy Policy*, 37(3), 1156-1164.

Halkos, G. (2013). Carbon dioxide emissions and governance: A nonparametric analysis for the G-20. *Energy Economics* 40. *Energy Economics*, 110-118.

Hongying Liu 1, K.-T. W. (2022). Does Economic Development Impact CO2 Emissions and Energy Efficiency Performance? Fresh Evidences From Europe. *rontier in energy research*, 10, 1-11.

Jichang Dong, Jing He, Xiuting Li, Xindi Mou and Zhi Dong. (2020). The Effect of Industrial Structure Change on Carbon Dioxide Emissions: A Cross-Country Panel Analysis. *Journal of Systems Science and Information*, 8.

Juanky, V. C. (2010). Divergence of electric power consumption: evidence from the SAPP. *The Journal of Developing Areas*, 123-147.

Lantz, V., and Feng, Q. (2006). Assessing income, population, and technology impacts on CO2 emissions in Canada: where's the EKC? *Ecological Economics*, 57(2), 229-238.

Lasi, D. H. (2014). Industry 4.0. *Business & Information Systems Engineering*, 239-242.

Leito, A. (2010). Corruption and the environmental Kuznets Curve: Empirical evidence for sulfur. *Ecological Economics*, 69(11), 2191-2201.

Lim, D. S., Mitchell, R. K., and Seawright, K. K. (2010). Institutional environment and entrepreneurial cognitions: A comparative business systems perspective. *Entrepreneurship theory and Practice*, 34(3), 491-516.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Lopez, R., & Mitra, S. (2000). Corruption, pollution, and the Kuznets environment curve. *Journal of Environmental Economics and Management*, 40(2), 137-150.

Lotfalipour, M. R., Falahi, M. A., and Ashena, M. (2010). Economic growth, CO2 emissions, and fossil fuels consumption in Iran. *Energy*, 35(12), 5115-5120.

Mehmood, U. (2021). Biomass energy consumption and its impacts on ecological footprints: analyzing the role of globalization and natural resources in the framework of EKC in SAARC countries. *Environmental Science and Pollution Research*, 17513-17519.

Mhenni, H. (2005). Economic development, adjustment and environmental quality: the case of Tunisia for a Contingent Valuation Study. *New Medit*, 4(2), 36.

Muhammad Ali Musarat, W. S. (2021). The Effect of Inflation rate on CO2 Emissions: A Framework for Malaysian Construction Industry. *sustainability*.

Naseer Ahmed, M. A. (2021). Combined role of industrialization and urbanization in determining carbon neutrality: empirical story of Pakistan. *Environmental Science and Pollution Research*, 15551-15563.

Nejat, R. A. (2019). The effect of corruption on carbon emissions in developed and developing countries: empirical investigation of a claim. *Heliyon*.

Omri, A. (2013). CO2 emissions, energy consumption and economic growth nexus in MENA countries: Evidence from simultaneous equations models. *Energy economics*, 40, 657-664.

Opoku, E. E. (2013). Effects of trade openness and economic growth on carbon dioxide (CO2) emissions in Ghana. 37(3).

Ozturk, S. F. (2015). Causal relationship between CO2 emissions, real GDP, energy consumption, financial development, trade openness, and urbanization in Tunisia. *Environmental Science and Pollution Research*, 15663–15676.

Parkin, D. E. (1977). Inflation : A Survey. *Surveys of Applied Economics*, 169-237.

Pinjie Xie, S. G. (2019). An analysis of the decoupling relationship between CO2 emissions in power industry and GDP in China based on LMDI method. *Journal of Cleaner Production*, 598-606.

Rawshan AraBegum,. (2015). CO2 emissions, energy consumption, economic and population growth in Malaysia. *Renewable and Sustainable Energy Reviews*, 594-601.

Richmond, A. K., and Kaufmann, R. K. (2006). Is there a turning point in the relationship between income and energy use and/or carbon emissions? *Ecological economics*, 56(2), 176-189.

Sadam Hussain, W. A. (2019). Impact of Inflation , CO2 Emissions and Foreign Investment on Economic Growth: A Case of Pakistan. *Asian Development Policy Review*, 307-317.

Shafik, N. (1994). Economic development and environmental quality: an econometric analysis. *Oxford economic papers*, 757-773.

Shafik, N., and Bandyopadhyay, S. (1992). *Economic growth and environmental quality: time-series and cross-country evidence* (Vol. 904). World Bank Publications.

Soytas, U.,and Sari, R. (2009). Energy consumption, economic growth, and carbon emissions: challenges faced by an EU candidate member. *Ecological economics*, 68(6), 1667-1675.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Soytas, U., Sari, R., and Ewing, B. T. (2007). Energy consumption, income, and carbon emissions in the United States. *Ecological Economics*, 62(3-4), 482-489.

Sterm, R. S. (2004). Treatment of photoaging. *The New England Journal of Medicine*, 350.

Svensson, J. (2005). Eight Questions about Corruption. *Journal of Economic Perspectives*, 19–42.

*The World Bank*. (2020, 10 06). Retrieved from Early Detection of Fraud and Corruption in Public Procurement through Technology: <https://www.worldbank.org/en/events/2020/10/06/early-detection-of-fraud-and-corruption-in-public-procurement-through-technology>

Zhang, Y. L., Chevallier, J., and Shen, B. (2016). The effect of corruption on carbon dioxide emissions in APEC countries: a panel quantile regression analysis. *Technological Forecasting and Social Change*, 112, 220-227.

ZhangU, Z. (1998). Economic modelling approaches to cost estimates for. *Energy Economics* , 101-120.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Risk Perception under Modigliani-Miller Theorem: An Objective Judgment**

Ayesha Shehzad

University of Engineering and Technology, Lahore, Pakistan.

Kanwal Iqbal Khan

University of Engineering and Technology, Kala Shah Kaku, Pakistan.

### **Abstract**

The accurate estimation of risk perception is becoming a challenging task in dynamic economies. Emerging economies like Pakistan are facing acute challenges to endure investor's risk perceptions while investing in risky companies. As Modigliani-Miller theorem scrutinize the formation of an ultimate capital structure. Therefore the present study is measuring the risk perceptions of investors under Modigliani-Miller theorem. Following the theory risk perception factors are identified using the data of top hundred companies, listed in Pakistan Stock exchange. The aim of the present study is to measure the risk perceptions among top hundred PSX index companies. Furthermore, industry wise division is done representing the presence of risk perceptions. Ultimately the last objective of the study is to rank the companies from highest to lowest, according to their risk perceptions. The findings of the study will provide several new dimensions to investors and policymakers in origination their investment strategies.

**Keywords:** risk perception, Modigliani-Miller theorem, PSX index companies, dynamic economies, risk factor

### **Introduction**

Along each progressing evening the universe is proceeding. The race of getting out from developing and entering into the list of developed countries is becoming ordinary. Moreover out of 195 countries, 137 are yet primitive (Chappelow, 2020). These emerging economies can best be described as dynamic economies due to their rapidly evolving economies. Pakistan has been designated as the 67<sup>th</sup> country out of those 137 countries, by world economic forum survey (United Nations ESCAP, 2006). The attraction of both, wale investors and angel investor is getting a harder task day by day, because in all such situations have diminished the risk appetite of investors. Furthermore the exact and accurate calculations of risk perception is also becoming a call into question for dynamic economies (Afzal et al., 2022). Developing markets, such as Pakistan are facing acute challenges to go through the investor's risk perception related problems when they are investing in risky securities. Risk perception is being a conversational affair since a long time. According to Wildavsky (1991), risk perception is the apprehension and the realization of the risks attached with the money invested by investors. In other words risk perception is the taxonomy of probability of risk. Furthermore risk perception is the judgments of a particular situation, which may mitigate an instant or a long term threat to the financial investments (Rother, 2019).

Financial investments depends upon the risks perceived while making investments. Different factors are kept under consideration while making financial investments. Modigliani-Miller theorem is considered as one of the best theorem that can directly be linked to the risk



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

identifications and different decisions related to that perception. Market value of securities in the foremost thing monitored while making financial investments (Stiglitz, 1969). Therefore according to Modigliani-Miller theorem, correct market value can be estimated as the present value of future earnings. The theorem was manifested in 1950s, and had a notable impact on corporate finance. In 1958 Franco Modigliani and Merton H. Miller, stated that cost of capital of a corporation is free from its debt and equity financing (Stiglitz, 1969). Few suppositions of Modigliani-Miller theorem also address various capital market frictions, which are the core of profit maximization (Villamil, 2008). Modigliani-Miller theorem depends on a dispute that those securities are economically not acceptable in which the returns depend upon debt to equity ratios (K. I. Khan et al., 2021).

A massive literature is present related to the different factors and different aspects of risk perception. But still there is a gap related to the calculation of investor's risk perception depending upon the capital structure the organization. As Modigliani-Miller theorem scrutinize the formation of an ultimate capital structure. Therefore the aim of the present study is to measure the risk perceptions of investors among top hundred PSX index companies, under Modigliani-Miller theorem. The second major object of the study is to classify the companies depending upon their risk perceptions. Therefore the final outcomes will aid investors and policy makers to take and amend their investment decisions accordingly.

### **Risk Perception and its Importance**

The basic concept of risk perception started at the mid of 1960, when there was a tremendous leap in nuclear technologies. It was the spell when the technology introducers were assuring a safe and clean energy. Therefore as a result of all such situations impressions opposed new technologies (Fischhoff, 2013b). Gradually different researchers started to narrate their view points of the concept of risk perception. Furthermore in 1969, a preference approach was introduced to identify some socially acceptable risks (Starr, 2018). The risk acceptance of people depends more upon volitional behavior of individuals more, as compared reflexive. According to some authors individuals are able to make intelligent decisions with perceived risks but the fright of inadequate risk assessments always exist (Botterill & Mazur, 2004; Fischhoff, 2013a; Kapuściński & Richards, 2016; Starr, 2018). Cautiously the idea of risk and its accurate estimation became a major problem while strategy formulation in 1980s.

Ultimately the impression of risk perception and its factors kept evolving in terms of judgments, with every passing year (Bashir et al., 2019). The overall exploration was a prop of strategies, exercised to make sense of undetermined universe. Shahzad et al., (2021), defines risk as the blend of probability and recurrence of venture that can be either financial or non-financial. Possibility of both gain and loss are clasp hands. In social perspective risks are engaged with all moral, ethical, cultural and social affairs carried in a society. The research related to the factors of risk perception is continuous from decades. Factors effecting risks can broadly be categories as micro, meso and macro levels (M. S. Khan et al., 2019). These three categories include individual, community and institutional level factors respectively Nasir et al. (2021), in his study narrated the various factors to describe the perceived risks i.e. real risk and general risk etc.





### Theoretical Perspective of Risk Perception

Risk perception has been considered as an emerging topic, ultimately it has been under consideration of literature in recent past years. To shed some light on the theoretical perspective of risk perception the present study has explored out some theories, which are liked with the concept of risk perception. Many theories can be used to explain the importance of risk perception, the summary of which is presented in Table 1. Rhodes presented a theory named as Situated Rationality Theory Situated in 1997, which sketched the risk takings in different social levels. According to the theory individuals with lower powers are forced to take risks, all this is due to the lack of justice in social relations (Lawson, 1997).

Theory	Demonstration	Main idea	Link with risk perception	Reference(s)
Habituated Action Theory	Evgeny Sokolov,1960	Greater level of risks (negative result) usually lower the linked risks.	Both depends upon inceptive risk perceptions	(Icek Ajzen, 2002)
Risk Compensation theory	Peltzman, 1970s	Risk adjustments depends upon their perceptions	Initial risk perceptions lead to adjusted actions.	(Thompson et al., 2002)
Protection Motivation theory	R.W. Rogers, 1975	Reorganization of fear and overcome those fears.	Both the theories focus on the judgments and assessments of threats	(Neuwirth et al., 2000; Rogers, 1975)
Situated Rationality Theory Situated	Rhodes, 1997	Disproportionate and premature risk taking.	The two of them focus on social trends for risk takings.	(Lawson, 1997)

Table 1. Theoretical Perspective of Risk Perception

Back in 1975, R.W. Rogers came up with the idea of Protection Motivation theory. The main concept behind presenting the theory was to recognize the fears that exist among people and second main focus of the theory was that how people can overcome those fears (Rogers, 1975). Later on in 1983, Roger further added value to the same theory. The purpose of creating Protection Motivation theory was to aid individuals to shield them from evaluation and to get through from that evaluation (Neuwirth et al., 2000). The theory can be related with risk perception in terms that both the theories focus on the judgments of individuals and assessments of fears (K. I. Khan et al., 2020).

Further adding value Risk Compensation theory was another major theory, presented by Peltzman in 1970s. The theory narrates that risks are initially perceived and then adjustments are

made accordingly. According to risk compensation theory individuals get caution if they perceive high risks as compared to lesser intense risks (Thompson et al., 2002). Risk Compensation theory and risk perception both depends upon the perceptions derived from certain situations and safeguards for those risks. From the period of 1960-1963, Evgeny Sokoloy worked and presented Habituated Action Theory which declared that dealing with greater level of risks which do not have a negative result usually lower the risks linked with that (Icek Ajzen, 2002).

### Materials and Methods

The primary aim of the current study to estimate the risk perceptions amid hundred leading PSX index companies. As Pakistan is an emerging economy where there are rapid fluctuations in stock market. So keeping the dynamic situation of market in view, industry wise division will be done, representing the risk perceptions. Moreover the finally companies will be ranked in a descending order, based on their risk perceptions. The research methodology is further simplified through Figure 1.

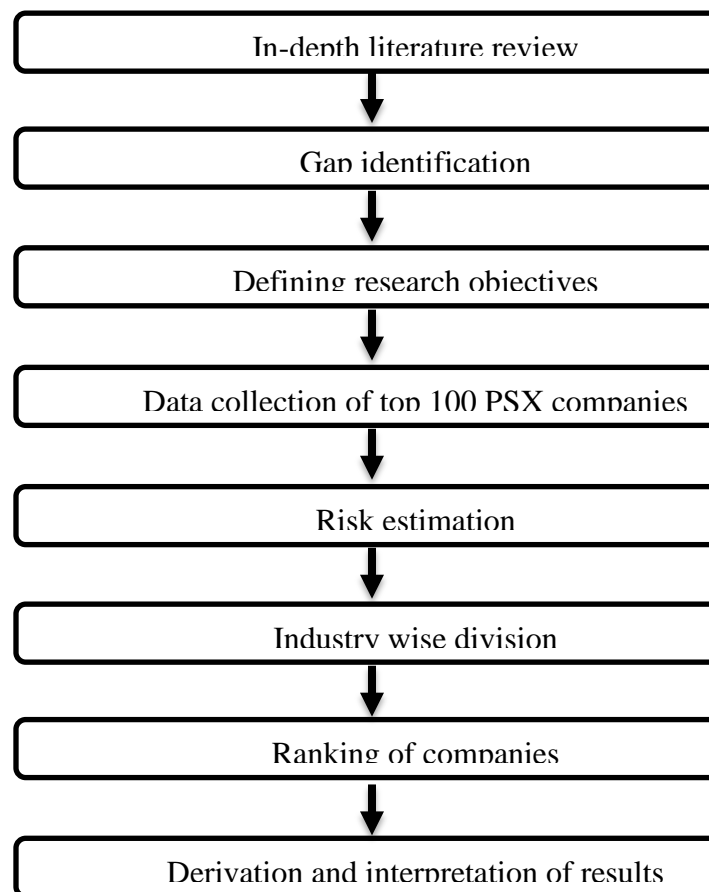


Figure 1. Summary of research methodology



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Conclusion

Keeping the dynamic nature of Pakistani economy in view, accurate risk perception is the main focus of every investor before making a sound investment in financial securities. As the basis of financial investment is perceived risks, risk estimation the toughest discussion for every investor. Although there are a number of theorems narrating risks and their consequences but among all Modigliani-Miller theorem is one of the finest theorem that can best be linked with risk identification and multiple decisions related to risk perceptions. Therefore by adding value to the existing body of knowledge. The present study has focused on risk perception keeping Modigliani-Miller theorem in view. For that detail literature review was done initially, in the same process different theories which somehow linked with risk perception were identified and explained. To address the research objectives, data related to the top hundred ranked companies will be collected for the estimation of risks. Furthermore industry wise division will be done representing the presence of risk perceptions among various companies. Finally the ranking of companies will be done from highest to lowest, according to their risk perceptions. But for all this may be some problems related to data collection will occur and add hindrances while conducting comprehensive analysis. Some other theorems can also be linked with the concept of risk perception to a more comprehensive literature analysis. Or some international data can also be used to make the analysis more reliable. Once fully completed the findings of the study will provide several new dimensions to investors and policymakers in origination their investment strategies. The study can provide aid to future researchers and scholar to use the limitations of the present study as their main gap. The data can be used by investors and policy makers for taking and making some amendments in their already taken financial decisions. Therefore this paper make the concept of risk perception more explicit and obliging for knowledge seekers.

## References

- Afzal, F., Shehzad, A., Rehman, H. M., Afzal, F., & Mukit, M. M. H. M. H. (2022). Risk perception and cost of capital in emerging market projects using dynamic conditional correlation model. *International Journal of Islamic and Middle Eastern Finance and Management*. <https://doi.org/10.1108/IMEFM-07-2021-0257>
- Bashir, T., Khan, I. K., Khalid, S., & Javed, S. (2019). Interest Rate Risk Management by Financial Engineering in Pakistani Non-Financial Firms. *Journal of Managerial Sciences*, XIII(3), 158–165.
- Botterill, L., & Mazur, N. (Nicole A. (2004). Risk & risk perception : a literature review : a report for the Rural Industries Research and Development Corporation. *Rural Industries Research and Development Corporation (Australia)*, 04, 22.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Chappelow, J. (2020). Emerging Market Economy Definition. In *Investopedia Online*.

<https://www.investopedia.com/terms/e/emergingmarketeconomy.asp>

Fischhoff, B. (2013a). Risk Analysis and Human Behavior. *Risk Analysis and Human Behavior*, 15(6), 1–432. <https://doi.org/10.4324/9780203140710>

Fischhoff, B. (2013b). Risk Perception and Communication Unplugged: Twenty years of process. *Risk Analysis and Human Behavior*, 15(2), 208–222. <https://doi.org/10.4324/9780203140710-16>

Icek Ajzen. (2002). Residual Effects of Past on Later Behavior: Habituation and Reasoned Action Perspectives. *Personality and Social Psychology Review*, 6(2), 107–122. <https://doi.org/10.1207/S15327957PSPR0602>

Kapuściński, G., & Richards, B. (2016). News framing effects on destination risk perception. *Tourism Management*, 57, 234–244. <https://doi.org/10.1016/j.tourman.2016.06.017>

Khan, K. I., Naqvi, S. M. W. A., Ghafoor, M. M., & Akash, R. S. I. (2020). Sustainable portfolio optimization with higher-order moments of risk. *Sustainability (Switzerland)*, 12(5), 1–14. <https://doi.org/10.3390/su12052006>

Khan, K. I., Qadeer, F., Mata, M. N., Dantas, R. M., Xavier Rita, J., & Martins, J. N. (2021). Debt Market Trends and Predictors of Specialization: An Analysis of Pakistani Corporate Sector. *Journal of Risk and Financial Management*, 14(5), 224. <https://doi.org/10.3390/jrfm14050224>

Khan, M. S., Khan, K. I., & Mahmood, S. (2019). *Symmetric and Asymmetric Volatility Clustering Via GARCH Family Models: An Evidence from Religion Dominant Countries*. Volatility clustering and asymmetry are considered as an essential element in time series data analysis for portfolio managers. *This stu.* 13(1), 20–25. <https://doi.org/10.24312/1900148130104>

Lawson, T. (1997). Situated rationality. *Journal of Economic Methodology*, 4(1), 101–125. <https://doi.org/10.1080/13501789700000006>

Nasir, A., Khan, K. I., Mata, M. N., Mata, P. N., & Martins, J. N. (2021). Optimisation of time-varying asset pricing models with penetration of value at risk and expected shortfall. *Mathematics*, 9(4), 1–39. <https://doi.org/10.3390/math9040394>

Neuwirth, K., Dunwoody, S., & Griffin, R. J. (2000). Protection motivation and risk communication. *Risk Analysis*, 20(5), 721–734. <https://doi.org/10.1111/0272-4332.205065>

Rogers, R. W. (1975). A Protection Motivation Theory of Fear Appeals and Attitude Change. *The Journal of Psychology*, 91(1), 93–114. <https://doi.org/10.1080/00223980.1975.9915803>

Rother, H. A. (2019). Challenges in pesticide risk communication. In *Encyclopedia of Environmental Health* (Issue July). Elsevier Inc. <https://doi.org/10.1016/B978-0-12-409548-9.02150-3>

Shahzad, M. F., Khan, K. I., Saleem, S., & Rashid, T. (2021). What factors affect the entrepreneurial intention to start-ups? The role of entrepreneurial skills, propensity to take risks, and innovativeness in open business models. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(3). <https://doi.org/10.3390/JOITMC7030173>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Starr, C. (2018). Social benefit versus technological risk: What is our society willing to pay for safety? *Renewable Energy: Four Volume Set*, 4-4, 137–152. <https://doi.org/10.4324/9781315793245-125>

Stiglitz, J. E. (1969). of the Miller Theorem. *The American Economic Review*, 59(5), 784–793.

Thompson, D. C., Thompson, R. S., & Rivara, F. P. (2002). Risk compensation theory should be subject to systematic reviews of the scientific evidence. *Injury Prevention*, 8(2), 1–7. <https://doi.org/10.1136/ip.8.2.e1>

United Nations ESCAP. (2006). Sustainable Infrastructure in Asia. In *Overview and Proceedings Seoul Initiative Policy Forum on Sustainable Infrastructure Seoul, Republic of Korea, 6-8 September 2006* (Vol. 66, Issue 0).

Villamil, A. P. (2008). Modigliani–Miller theorem. *The New Palgrave Dictionary of Economics*, i, 673–677. <https://doi.org/10.1057/9780230226203.1114>

Wildavsky, A. (1991). Risk Perception. *Risk Analysis*, 11(1), 15–16. <https://doi.org/10.1111/j.1539-6924.1991.tb00559.x>





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Unveiling the Cognition of Turnover Intention and Mental Health via Cyberbullying with the Role of Dark Triad Personality Traits.**

Rimsha Baheer

University of Engineering and Technology, Lahore.

Kanwal Iqbal khan,

University of Engineering and Technology, Kala Shah Kaku, Pakistan

### **Abstract**

The supplementary inclination of today's generation towards applied sciences has provoked many forms of intimidate and cyberbullying behaviors. In the midst of distinguishable forms of bullying behaviors, researchers assertive that cyberbullying is analyzed to illustrate most deleterious effects. Whereas, studies requires that complex and incessant form of cyberbullying, specifically in the organizational setup, incorporate more precarious outcomes on employees. The distinctively competitive workplace environment in contemporaneous organizations has inflamed obstacle of antagonism in employees, which has successively inclined them more towards cyberbullying practices. In spite of substantial literature and research on the orthodox bullying approach, studies still requires the influence of cyberbullying in the organizational context. Following study is designed to disclose these gaps by investigating how dark triad of personality traits effects the turnover intention and organizational employees' mental health with the mediating role of cyberbullying. This research integrate a distinctive multistage sampling technique where the sample data was accumulated by self-administered questionnaires from employees of banking sector. The research outcomes revealed that there is a direct relationship between the dark triad of personality traits and turnover intention. Furthermore, cyberbullying moderately mediates the association between dark triad personality traits and turnover intention. Research findings additionally demonstrate that the dark triad of personality traits has a negative relationship with mental health of employees. An essential constituent of this study is investigating the mediating effect of cyberbullying between dark triad personality traits and employees' mental health as well as turnover intention. The research outcomes are desirable for organizational stakeholders, whereas administration and HR can embrace diverse practices and training programs to deflate the deleterious consequences of cyberbullying. Following capabilities can help employees to encounter mental health issues, alleviate negative workplace behaviour and ultimately minimizing turnover intention.

**Keywords:** Dark Triad of Personality Traits; Machivellianism; Narcissism; Psychopathy; Turnover Intention; Mental Health

### **Introduction**

Electrical Technology services are flourishing in the modern world of science and telecommunication. Consequently, organizations are promptly shifting towards this trend to grow and shift their businesses concerning digitalization (Ng et al., 2022). Hence, after the outbreak of Covid-19 pandemic it become mandatory for organizations to exploit the online platforms for sustainability in the market that is directly related with online harassments known as cyberbullying (Barlett et al., 2021). The research study will examine the cyberbullying and its





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

related outcomes as a consequence of inclination due to Information and Communication Technology (ICT) networks (Enosh and Tzafrir 2015).

Past studies states that when employees work in virtual environment the quest of competitiveness comparative to their colleagues is the primary foundation of cyberbullying behavior (Keskin et al., 2016). In order to acquire their personal goals and their devious personality they leads towards cyberbullying behavior particularly during the period of pandemic (Shih et al., 2021). Baloch (2020) in their studies specifically state that individuals working on top level management with higher ascendancy as well as leadership are considered more inclined towards exhibiting cyberbullying behavior towards their employees as compared to other employees working on lower level of management (Baloch, 2020). Some researchers stated that cyberbullying is considered a new phenomenon who is getting researcher's attention as a consequence of growth in digitalization of organizations in pandemic era (Oksanen et al., 2020). Cyberbullying is a form of bullying behavior in which predator exploits online platforms such as messaging, phone calls, e-mails etc for continuous harassment of the victim. It further takes complex form from bullying and hostile behavior leading towards spreading rumor to harass the victim (Näsi et al. 2017).

Whereas, Heim et al. (2008) in its study showed that cyberbullying is associated with terrific lethal outcomes for individuals as well as organizations. It includes negative physical, psychological and workplace related outcomes leading victim towards mental health issues, turnover intention (Geng et al. 2020). Studies showed that employees with dark triad of personality traits including machiavellianism, narcissism and psychopathy are more prone towards displaying cyberbullying behavior (Kraus et al. 2020). Employees with dark triad personality traits display cyberbullying behavior towards their colleagues leading towards negative work related outcomes as dissatisfaction of job and ineffective job performance (Madan 2014) consequently deal with mental health problems which influence them with the intent to leave the organization (Bonfá-Araujo et al. 2021).

Many research studies stated that dark triad personality traits requires solitary attention because every trait represent some distinct associated workplace as well as mental health outcomes (Furnham et al. 2014). The study would have various noteworthy contribution in body of knowledge as it provide information regarding employee unproductivity and workplace withdrawal intention as a consequence of negative attitude from their colleagues in respect of cyberbullying and dark triad personality traits (Z. P. Szabó et al., 2021). The contribution of the study includes exploring how cyberbullying mediates the relationship between dark triad personality traits and turnover intention of employees. Moreover, to explore how cyberbullying mediates the relationship between dark triad personality traits and mental health of employees (Mieczynski, 2010).

The basic goal of the following research is to examine how cyberbullying mediates the relationship between dark triad personality traits and turnover intention of employees as well as how cyberbullying mediates the relationship between dark triad personality traits and mental health of employees in service sector particularly the baking sector of Pakistan. The significance of our research study includes helping organizational leaders and HR officials to minimize the influence of cyberbullying prosecution. It will provide the cyberbullying victims with knowledge support to combat their emotional or workplace related outcomes in order to cope with mental



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

health issues and minimizing the rate of turnover intention in workplaces. One of the enthralling contribution of the study is the exploitation of Cyberbullying: Screening of Peer Harassment Scale (Machimbarrena & Garaigordobil, 2017) to measure the cyberbullying rate irrespective of any other standard scale used in previous studies.

## Literature Review and Hypothesis Development

Dark triad personality traits is known as individual's tendency to act inconsiderate and insensitive towards individuals they are interacting in their daily lives. In prospect of workplace, it involves employee's ability to influence their colleagues for sake of their own purpose that negatively contributes to the workplace dynamics (Włodarska et al., 2021). Whereas, some studies demonstrate that when employees working in organization possess dark triad traits they are likely to engage in undesirable attitude towards their colleagues and exploit them for their personal goal attainment (Kabat, 2019). However, dark triad personality traits consist of three traits known as machiavellianism, narcissism and psychopathy (Jones & Paulhus, 2014). "Machiavellianism" is a personality characteristic in which person have properties such as dishonesty, cynicism and immorality in their behavior (Al Ain et al., 2013). Narcissism individuals have characteristics as exaggerated self-esteem, desire of magnificence and dominance, such individuals show little sympathy toward their employees (Mojsa-Kaja et al., 2021).

Psychopathy is define as a personality in which individual shows properties of insensitivity, manipulative nature and privation of imprudent control on their subordinates (Kabat, 2019). Cyberbullying is a form of bullying behavior where the individual uses digital media networks that undesirably influence the personal life as well as psychological well-being of the victim (Juvonen & Gross, 2008). Studies state that mental health comprises feelings, attitude, and social health of the individual (Kananifar et al., 2019).

Turnover intention is the employee's predisposition to willingly quit from the organization which can be effected by the personal or organizational factors of the employee in which they are interacting with their co-workers (Dearlove, 2003). Christie and Geis (1970) in their studies state that machiavellian individuals are more vulnerable to manipulate others for their personal goals and less concerned about emotions and feelings of others, exhibit low empathy towards other leading them towards quitting the organization (Jakobwitz & Egan, 2006). Individuals with narcissistic personality do not align their goals with the organizational goals causing disturbance in the workplace and effect the psychological health of their employees in such way affect the turnover intention ratio of the workplace (Jiang et al., 2019). They create stressful and deceptive working environment which influence the productivity of coworkers and cause employee turnover intention (Foulk et al., 2018)

Khan et al., (2020) states that psychopath individuals are more belligerent in nature and cause bullying actions towards their employees for their personal welfares. They create negative workplace outcomes that negatively affects employee productivity and decrease performance that ultimately increase the employee turnover intention (Boddy, 2017).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Theoretical Foundation

### Transactional Theory of Stress and Coping (TTSC)

Transactional Theory of Stress and Coping support the research study and helps in development of hypothesis for study. TTSC described how various mental health issues plays an integral role among any individual and its associated workplace atmosphere which is estimated as surpassing the related resources individuals are exploiting in their workplace and intimidating their mental health (Lazarus & Folkman, 1984). It consist of two forms of mental evaluation, where an individual responds to the factors causing stress whereas secondarily how individual will use various combating procedures to minimize the influence of that stressor (Perrewe & Zellars, 1999).

However, relative to context of cyberbullying behavior following research theory would be used to analyze how the cyberbullying victim would formulate various strategies to cope their psychological expenditures and what approach individual is using to survive in victimization situation (Raskauskas & Huynh, 2015). Past studies has confirmed that there is a positive relationship between dark triad personality traits and negative working consequences .i.e. Lower productivity, cyberbullying behavior and turnover intention etc that have deleterious consequences on workplace (Cao et al. 2019). In support of following affirmations, we could claim that cyberbullying is most commonly exhibited in any person who owns dark triad personality traits. Hence, the research objective of this study is to examine the association between dark triad personality traits and turnover intention with the mediating role of cyberbullying. Thus, we hypothesized that:

#### **H1: How cyberbullying plays a mediating role between dark triad personality traits and turnover intention of employees?**

Therefore, TTSC theory is most suitable approach to examine the evaluation of cyberbullying perpetration and its consequences on cyberbullying and dark triad negative traits victims and related significances on workplace performance and associated mental health factors. Dark triad personality traits and cyberbullying have undesirable consequences on work related outcomes such as productivity, counterproductive work behavior results in intention to quit the organization and mental health problems. Various studies as, Mojsa-Kaja et al., (2021) proved a positive association of machiavellianism with depression and negatively association with mental health issues. Narcissism have positive implications towards mental health of individuals showing that they show negative outcomes towards their workplaces leading towards negative consequence on mental well-being of their colleagues (Joshnloo, 2021). Whereas, psychopathy is considered as the most robust interpreter of bullying if an individual with high psychopathy trait show harassment behavior towards their subordinates, they show less empathic reaction towards others that influence mental health of others (Tokarev et al., 2017). Cyberbullying effects the mental health of the victim and show devastating effect on the employees (Baumeister et al., 2000). Though, mental health issues such as burnout, anxiety, as well as physical health factors including weight loss, exhaustion etc are considered as significances of cyberbullying

(Samnani & Singh, 2012) and hence it have negative effect on employees' mental health (Park & Choi, 2019).

Therefore, we have concluded that dark traits personality traits are associated with cyberbullying behavior ultimately influence the mental well-being of other individuals (Kircaburun et al., 2019). Hence, we hypothesized that:

**H2: How cyberbullying plays a mediating role between dark triad personality traits and mental health of employees?**

The Figure 1. exhibits conceptual model that configures the association between dark triad personality traits and turnover intention and mental health via the mediating role of cyberbullying.

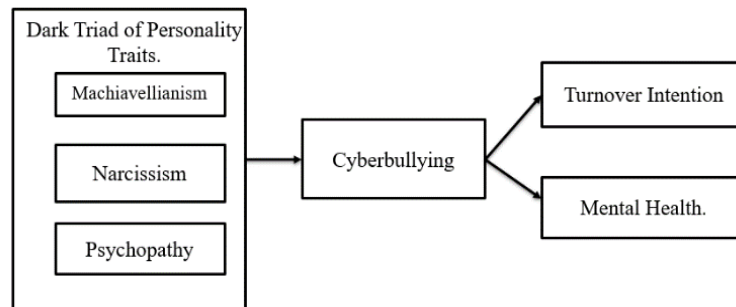


Figure 1. Conceptual Model.

**Methodology**

The research design of our study includes time horizon that will be cross-sectional study method since the data would be gathered from diverse personalities at particular point in time. The choice of our research will be monomethod and explanatory research study was used. The research approach was deductive methodology as quantitative research method will be exploited to test hypothesis by using the questionnaire created from past literature. The research philosophy will be realism because it examines how individuals working in banking sector reacts in any particular circumstance. The population and sample includes the service sectors because it is linked with other sectors like economic sector or manufacturing sector and create different outcomes for employees working in any particular negative workplace situations (Iftikhar et al., 2018). Service sector will be used for data collection which includes banking industry, hotels and tourism industry, educational institutes, telecommunication out of which banking sector will be focused as it is flourishing and this sector is more inclined towards online working during covid. Pakistan’s banking industry is developing rapidly. Respondents would be from diverse groups hence showing variation towards the organizational values, policies, and performs associated with Pakistani working hence such individuals reacts differently relative to any situation, principally cyberbullying (Farley et al., 2019).

**Data collection**

The data for our research will be gathered by convenience sampling technique. Where the survey





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

questionnaire approach will be exploited and the respondents were made sure regarding the privacy of their reactions. Questionnaires were disseminated between employees of banking sector (Kafil Uddin et al., 2016).

### **Measurement**

The research study comprises of six study variables which includes Turnover intention, Mental Health, Cyberbullying, Dark triad of Personality traits: Machiavellianism, Narcissism and Psychopathy. Where Turnover intention is define as an individual's willingly preference to quit the workplace. In this study, we would use three item turnover intention scale devised by Karatepe (2013). Mental health comprises an individual's emotional, consciousness and public health. In our research study we have exploited Depression Anxiety Stress Scale (DASS-21) consist of 21 items to evaluate the mental health consequences encountered by any employee. The independent variable of this study is dark triad personality traits that comprises of machiavellianism where machiavellianism is the dishonestly deceiving entitlement of individuals to get own purpose and depart from distinctive ethical codes (Chung, 2021). Narcissism is the personality characteristics where individual is more into impressiveness, dominance, perquisite properties. And lastly psychopathy have characteristics of Relational; Emotional; Lifestyle and Antisocial characteristics. We has used Dirty Dozen scale devised by Jonason & Webster that consist of 12-item. Cyberbullying is form of intimidation where the perpetrator exploit digital modes to influence other individuals that results in negatively affecting their performance at work and leads towards turnover intention (van Geel et al., 2017). We have used Cyberbullying: Screening of Peer Harassment (Garaigordobil, 2013) that comprises of 15 items (Machimbarrena & Garaigordobil, 2017). All the study variables will be analysed by 5-point Likert-type scale (from 1 "strongly disagree" to 5 "strongly agree") (Karatepe, 2013). Survey questionnaire comprises of 51 items as a whole.

### **Strengths and Implications**

The objective of our research study is to analyse the mediating role of cyberbullying between independent variable dark triad personality traits and dependent variables turnover intention and mental health of employee and result findings are considered to have significant implications (Szabó et al., 2021). Our study have several strengths and contribution that makes it distinctive from other researches. We have analysed cyberbullying using significant scale known as Cyberbullying: Screening of Peer Harassment scale (Machimbarrena & Garaigordobil, 2017) instead of typically used NAQ-R layman's criteria for assessing bullying behavior (Iftikhar & Beh, 2019). We have used survey questionnaire consist of multiple items scales in order to make sure about the precision and inclusive assessment of cyberbullying as past researchers have focused (Safaria et al. 2020).

### **Limitations And Future Directions**

The following are some limitations and future directions of our research study as follow: We has study the mediating role of cyberbullying among dark triad personality traits, turnover intention and mental health of the employees collectively. Future researchers are suggested to study how



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

dark triad personality traits mediates cyberbullying which affects the mental health and leads to turnover intention in organizations chronically. Secondly, the sample size is also one of the limitation of this study. It is suggested to take larger size including different cities of Pakistan in order to cover a whole population for obtaining better results hence generalizability issue also been resolved that is arise in this study due to limited data and limited resources (Baloch, 2020). Moreover, SD3 might not entirely cover these personality concepts and this might have noteworthy implications for the findings (Z. Szabó et al., 2021).

### Conclusion

The research is very limited in terms of cyberbullying behavior as a mediator among dark triad personality traits and dependent variables turnover intention and mental health of employees. Hence, our research study would prove valuable for future researchers as it fills following gap. The unique characteristics and short comings of cyberbullying plays a role in negatively affecting any individual's personal life, particularly in context of workplace as it lead towards effecting employee productivity, lowering performance, CWB and divergent attitude at workplace that primarily influence their mental health as consequence of depression, anxiety , burnout and other negative attitudes and ultimately leads towards exploring other options of the employee's intention to quit the organization. Various studies proved that organizations are incapable of eradicating cyberbullying behavior due to its transparent nature, hence they exploit this study to mediate the cyberbullying behavior outcomes as well as dark triad personality traits. Consequently, various strategies and training programs can be introduce and practice in organizations that could help employee or victims to cope with negative workplace issues that can lower the turnover intention of organizations and improve the mental health of employees as well.

### Reference

- Arnold, K. A., Turner, N., Barling, J., Kelloway, E. K., & McKee, M. C. (2007). Transformational leadership and psychological well-being: the mediating role of meaningful work. *Journal of Occupational Health Psychology, 12*(3), 193–203. <https://doi.org/10.1037/1076-8998.12.3.193>
- Baloch, R. (2020). Cyberbullying and its emotional impact on employee's performance with mediating role of psychological distress and moderating role of management support. *Journal of Psychology, 217*(4), 197–204. <https://doi.org/10.1027/0044-3409.217.4.197>
- Barlett, C. P., Simmers, M. M., Roth, B., & Gentile, D. (2021). Comparing cyberbullying prevalence and process before and during the COVID-19 pandemic. *Journal of Social Psychology, 161*(4), 408–418. <https://doi.org/10.1080/00224545.2021.1918619>
- Baumeister, R. F., Bushman, B. J., & Campbell, W. K. (2000). Self-esteem, narcissism, and aggression: Does violence result from low self-esteem or from threatened egotism? *Current Directions in Psychological Science, 9*(1), 26–29. <https://doi.org/10.1111/1467-8721.00053>





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Beaudry, A., & Pinsonneault, A. (2005). Understanding user responses to information technology: A coping model of user adaptation. In *MIS Quarterly: Management Information Systems* (Vol. 29, Issue 3, pp. 493–524). <https://doi.org/10.2307/25148693>

Barlett, Christopher P., Matthew M. Simmers, Brendan Roth, and Douglas Gentile. 2021. “Comparing cyberbullying prevalence and process before and during the covid-19 pandemic.” *Journal of Social Psychology* 161(4): 408-18. <https://doi.org/10.1080/00224545.2021.1918619>

Baughman, Holly M., Sylvia Dearing, Erica Giammarco, and Philip A. Vernon. 2012. “relationships between bullying behaviours and the dark triad: A study with adults.” *Personality and Individual Differences* 52(5): 571–75. <https://doi.org/10.1016/j.paid.2011.11.020>

Baumeister, Roy F., Brad J. Bushman, and W. Keith Campbell. 2000. “Self-esteem, narcissism, and aggression: does violence result from low self-esteem or from threatened egotism?” *Current Directions in Psychological Science* 9(1): 26–29. <https://doi.org/10.1111/1467-8721.00053>

Bonfá-Araujo, Bruno, Ariela Raissa Lima-Costa, Makilim Nunes Baptista, and Nelson Hauck-Filho. 2021. “Depressed or satisfied? The relationship between the dark triad traits, depression, and life satisfaction.” *Current Psychology*: 1–8. <https://doi.org/10.1007/s10862-017-9588-8>

Cao, Cacioppo, J. T., & Gardner, W. L. (1999). Emotion. *Annual Review of Psychology*, 50, 191–214. <https://doi.org/10.1146/annurev.psych.50.1.191>

Chung, J. J. (2021). The effect of leader’s machiavellianism on turnover intention: mediating effect of hindsight bias. *Knowledge Management Research*, 22(1), 155–181. <https://doi.org/10.15813/KMR.2021.22.1.009>

Coyne, I., Farley, S., Axtell, C., Sprigg, C., Best, L., & Kwok, O. (2016). Understanding the relationship between experiencing workplace cyberbullying, employee mental strain and job satisfaction: A dysempowerment approach. *Taylor & Francis*, 28(7), 945–972. <https://doi.org/10.1080/09585192.2015.1116454>

Crowe, Michael L., Donald R. Lynam, W. Keith Campbell, and Joshua D. Miller. 2019. “exploring the structure of narcissism: toward an integrated solution.” *Journal of Personality* 87(6): 1151–69. <https://doi.org/10.1111/jopy.12464>

Delroy L., and Kevin M. Williams. 2002. “The dark triad of personality: narcissism, machiavellianism, and psychopathy.” *Journal of Research in Personality* 36(6): 556–63. [https://doi.org/10.1016/S0092-6566\(02\)00505-6](https://doi.org/10.1016/S0092-6566(02)00505-6)

Dearlove, Des. 2003. “The dark side of leadership.” *Business Strategy Review* 14(3): 25–28. [https://doi.org/10.1016/0090-2616\(90\)90070-6](https://doi.org/10.1016/0090-2616(90)90070-6)

Day, A., Scott, N., & Kelloway, E. K. (2010). Information and communication technology: Implications for job stress and employee well-being. *Research in Occupational Stress and Well Being*, 8, 317–350. [https://doi.org/10.1108/S1479-3555\(2010\)0000008011](https://doi.org/10.1108/S1479-3555(2010)0000008011)

Disque, N. (2020a). Influence of perceived supervisor support and narcissistic leadership on employee turnover intention. *ProQuest Dissertations and Theses*, 208. <https://doi.org/10.1080/01973533.2020.1810042>



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Disque, N. (2020b). Influence of perceived supervisor support and narcissistic leadership on employee turnover intention. In *ProQuest Dissertations and Theses*. 235, 281–291. <https://doi.org/10.1111/1911-3846.12552>

Differences, Y Rim - Personality and Individual, and undefined 1992. 1992. “Machiavellianism and coping styles.” *Elsevier* 13(4): 487–89. <https://doi.org/10.1111/j.1461-0248.2004.00618>.

Enosh, Guy, and Shay S. Tzafrir. 2015. “The scope of client aggression toward social workers in Israel.” *Journal of Aggression, Maltreatment and Trauma* 24(9): 971–85. <https://doi.org/10.1080/10926771.2015.1070233>

Farley, S., Coyne, I., & D’Cruz, P. (2021). Cyberbullying at work: Understanding the influence of technology. In *Springer* (pp. 233–263). [https://doi.org/10.1007/978-981-13-0134-6\\_8](https://doi.org/10.1007/978-981-13-0134-6_8)

Furnham, Adrian, Steven Richards, Luis Rangel, and Daniel N. Jones. 2014. “Measuring malevolence: Quantitative issues surrounding the dark triad of personality.” *Personality and Individual Differences*.67: 114–21. <https://doi.org/10.1016/j.paid.2014.02.001>

Garofalo, Carlo, Craig S. Neumann, and Patrizia Velotti. 2021. “Psychopathy and aggression: The role of emotion dysregulation.” *Journal of Interpersonal Violence* 36(23–24): <https://doi.org/10.1177/0886260519900946>

Van Geel, Mitch, Anouk Goemans, Fatih Toprak, and Paul Vedder. 2017. “Which personality traits are related to traditional bullying and cyberbullying? A study with the big five, dark triad and sadism.” *Personality and Individual Differences* 106: 231–35. <https://doi.org/10.1016/j.paid.2016.10.063>

Geng, Yaoguo, Jingjing Gu, Jiejing Yu, and Xueli Zhu. 2020. “Negative life events and depressive symptoms among chinese adolescents: Mediating role of resilience and moderating role of psychopathy.” *Current Psychology* 2020: 1–8. <https://doi.org/10.1016/j.jad.2018.06.015>

Giorgi, Gabriele et al. 2017. “Work-related stress in the banking sector: A review of incidence, correlated factors, and major consequences.” *Frontiers in Psychology*, 13(9). <https://doi.org/10.3389/fpsyg.2017.02166>

Goodboy, Alan K., and Matthew M. Martin. 2015. “The personality profile of a cyberbully: Examining the dark triad.” *Computers in Human Behavior* 49: 1–4. <https://doi.org/10.1016/j.chb.2015.02.052>

Garofalo, C., Neumann, C. S., & Velotti, P. (2021). Psychopathy and aggression: The role of emotion dysregulation. *Journal of Interpersonal Violence*, 36(23–24). <https://doi.org/10.1177/0886260519900946>

Giorgi, G., Arcangeli, G., Perminiene, M., Lorini, C., Ariza-Montes, A., Fiz-Perez, J., Di Fabio, A., & Mucci, N. (2017). Work-related stress in the banking sector: A review of incidence, correlated factors, and major consequences. *Frontiers in Psychology*, 8 (45–52).<https://doi.org/10.3389/fpsyg.2017.02166>

Goodboy, A. K., & Martin, M. M. (2015). The personality profile of a cyberbully: Examining the dark triad. *Computers in Human Behavior*, 49, 1–4. <https://doi.org/10.1016/j.chb.2015.02.052>

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524. <https://doi.org/10.1037/0003-066X.44.3.513>



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Hoel, H., Sparks, K., & Cooper, C. L. (2001). The cost of violence/stress at work and the benefits of a violence/stress-free working environment. *Geneva: International Labour Organization*, 1–81. <https://doi/10.1037/ocp0000069>

Hair, Joe F., Marko Sarstedt, Lucas Hopkins, and Volker G. Kuppelwieser. 2014. “Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research.” *European Business Review* 26(2): 106–21. <https://doi.org/10.1016/j.csda.2004.03.005>

Heim, Christine et al. 2008. “The link between childhood trauma and depression: insights from HPA axis studies in humans.” *Psych neuroendocrinology* 33(6): 693–710. <https://doi.org/10.1016/j.psyneuen.2008.03.008>

Hoel, Helge, Kate Sparks, and Cary L Cooper. 2001. “The cost of violence/stress at work and the benefits of a violence/stress-free working environment.” *Geneva: International Labour Organization*: 1–81. <https://doi/10.1037/ocp0000069>

Iftikhar, M., & Beh, L. S. (2019). Grim consequences of workplace traditional bullying and cyberbullying by way of mediation: A case of service sector of Pakistan. *International Journal of Recent Technology and Engineering*, 8(2), 24–34. <https://doi.org/10.1080/00224545.2017.1302402>

Jonathon B Halbesleben, W. R., Neveu, J.-P., & Paustian-Underdahl, S. C. (2014). resources theory getting to the “COR”: understanding the role of resources in conservation of. *Journal of Management*, 40. <https://doi.org/10.1177/0149206314527130>

Jones, D. N., & Paulhus, D. L. (2014). Introducing the short dark triad (SD3): A brief measure of dark personality traits. *Assessment*, 21(1), 28–41. <https://doi.org/10.1177/1073191113514105>

Juvonen, J., & Gross, E. F. (2008). Extending the school grounds? - Bullying experiences in cyberspace. *Journal of School Health*, 78(9), 496–505. <https://doi.org/10.1111/j.1746-1561.2008.00335.x>

Kananifar, Nafiseh, Haslina Muhamad, and Nadia Zarkesh. 2019. “An evaluation of mental health based on the big five personality traits and machiavellianism in domestic and international students in Malaysia. *Journal of Management*, 45. <https://doi.org/10.21276/sb.2019.5.5.4>

Kanapathipillai, Kumaran, and Nur Nadiah Mahbob. 2021. “The consequences of cyberbullying in the manufacturing sector on employees’ productivity in Malaysia: Mediating role of job stress and moderating role of co-workers support.” *European Journal of Human Resource Management Studies* 5(3): 13. <https://doi.org/10.1556/2006.7.2018.15>

Karatepe, Osman M. 2013. “High-performance work practices, work social support and their effects on job embeddedness and turnover intentions.” *International Journal of Contemporary Hospitality Management* 25(6): 903–21. <https://doi.org/10.1108/IJCHM-06-2012-0097>

Keskin, H et al. “Cyberbullying victimization, counterproductive work behaviours and emotional intelligence at workplace.” *Elsevier*. 235, 281-287. <https://doi.org/10.1016/j.sbspro.2016.11.031>

Kircaburun, Kagan et al. 2021. “Childhood emotional abuse and cyberbullying perpetration: The role of dark personality traits.” *Journal of Interpersonal Violence* 36(21–22): <https://doi.org/10.1177/0886260519889930>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Kircaburun, Kagan, Zsolt Demetrovics, and Şule Betül Tosuntaş. 2019. “Analyzing the links between problematic social media use, dark triad traits, and self-esteem.” *International Journal of Mental Health and Addiction* 17(6): 1496–1507. <https://doi.org/10.1371/journal.pone.0169839>

Kraus, Sascha, Verena Traummüller, Norbert Kailer, and Victor Tiberius. 2020. “The dark triad in entrepreneurship research-A systematic literature review.” *Journal of Enterprising Culture* 28(04): 353–73. <https://doi.org/10.1142/S0218495820500156>

Kananifar, N., Muhamad, H., & Zarkesh, N. (2019). An evaluation of mental health based on the big five personality traits and machiavellianism in domestic and international students in Malaysia an evaluation of mental health based on the big five personality traits and machiavellianism in domestic and In. *Scholars Bulletin*, 9771(June), 192–201. <https://doi.org/10.21276/sb.2019.5.5.4>

Kanapathipillai, K., & Mahbob, N. N. (2021). The consequences of cyberbullying in the manufacturing sector on employees’ productivity in Malaysia: Mediating role of job stress and moderating role of co-workers support. *European Journal of Human Resource Management Studies*, 5(3), 13. <https://doi.org/10.46827/ejhrms.v5i3.1145>

Karatepe, O. M. (2013). High-performance work practices, work social support and their effects on job embeddedness and turnover intentions. *International Journal of Contemporary Hospitality Management*, 25(6), 903–921. <https://doi.org/10.1108/IJCHM-06-2012-0097>

Keskin, H., Akgün, A. E., Ayar, H., & Kayman, Ş. S. (2016). Cyberbullying victimization, counterproductive work behaviours and emotional intelligence at workplace. *Procedia - Social and Behavioral Sciences*, 235, 281–287. <https://doi.org/10.1016/j.sbspro.2016.11.031>

Kircaburun, K., Demetrovics, Z., & Tosuntaş, Ş. B. (2019). Analyzing the links between problematic social media use, dark triad traits, and self-esteem. *International Journal of Mental Health and Addiction*, 17(6), 1496–1507. <https://doi.org/10.1007/S11469-018-9900-1>

Lata, M., & Chaudhary, R. (2021). Workplace spirituality and experienced incivility at work: modeling dark triad as a moderator. *Journal of Business Ethics*, 174(3), 645–667. <https://doi.org/10.1007/s10551-020-04617-y>

Loh, J., & Snyman, R. (2020). The tangled web: Consequences of workplace cyberbullying in adult male and female employees. *Gender in Management*, 35(6), 567–584. <https://doi.org/10.1108/GM-12-2019-0242>

Lilienfeld, Scott O. et al. 2012. “The role of fearless dominance in psychopathy: confusions, controversies, and clarifications.” *Personality Disorders: Theory, Research, and Treatment* 3(3): 327–40. <https://psycnet.apa.org/doi/10.1037/a0026987>

Machimbarrena, Juan M, and Maite Garaigordobil. 2017. “Bullying/Cyberbullying in 5th and 6th Grade: Differences between public and private schools.” *Anales de Psicología* 33(2): 319–26. <http://dx.doi.org/10.6018/analesps.33.2.2493819728>.

Madan, Anishya. “Cyber aggression / cyber bullying and the dark triad: effect on workplace behavior / performance.” *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering Vol: 8*. <https://doi.org/10.1016/j.paid.2015.01.008>





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Miao, Chao, Ronald H. Humphrey, Shanshan Qian, and Jeffrey M. Pollack. 2019. “The relationship between emotional intelligence and the dark triad personality traits: a meta-analytic review.” *Journal of Research in Personality* 78: 189–97. <https://doi.org/10.1016/j.jrp.2018.12.004>.

Mojsa-Kaja, Justyna, Klaudia Szklarczyk, Sara González-Yubero, and Raquel Palomera. 2021. “Cognitive emotion regulation strategies mediate the relationships between dark triad traits and negative emotional states experienced during the covid-19 pandemic.” *Personality and Individual Differences* 181: <https://doi.org/10.1016/j.paid.2021.111018>Näsi,

Matti et al. 2017. “Do routine activities help predict young adults’ online harassment: a multi-nation study.” *Criminology and Criminal Justice* 17(4): 418–32. <https://doi.org/10.1177/1748895816679866>

Machimbarrena, J. M., & Garaigordobil, M. (2017). Bullying/cyberbullying in 5th and 6th grade: Differences between public and private schools. *Anales de Psicología*, 33(2), 319–326. <https://doi.org/10.6018/analesps.33.2.249381>

Neumann, Craig S., Robert D. Hare, and Joseph P. Newman. 2007. “The super-ordinate nature of the psychopathy checklist-revised.” *Journal of Personality Disorders* 21(2): 102–17. <https://doi.org/10.1521/pedi.2007.21.2.102>

Näsi, M., Räsänen, P., Kaakinen, M., Keipi, T., & Oksanen, A. (2017). Do routine activities help predict young adults’ online harassment: A multi-nation study. *Criminology and Criminal Justice*, 17(4), 418–432. <https://doi.org/10.1177/1748895816679866>

Neumann, C. S., Hare, R. D., & Newman, J. P. (2007). The super-ordinate nature of the psychopathy checklist-revised. *Journal of Personality Disorders*, 21(2), 102–117. <https://doi.org/10.1521/pedi.2007.21.2.102>

Ng, E. D., Chua, J. Y. X., & Shorey, S. (2022). The effectiveness of educational interventions on traditional bullying and cyberbullying among adolescents: A systematic review and meta-analysis. In *Trauma, Violence, and Abuse* (Vol. 23, Issue 1, pp. 132–151). <https://doi.org/10.1177/1524838020933867>

Park, M, JS Choi - Journal of nursing management, and undefined 2019. 2019. “Effects of workplace cyberbullying on nurses’ symptom experience and turnover intention.” *Wiley Online Library* 27(6): 1108–15. <https://doi.org/10.1111/jonm.12779>Paulhus,

Peachey, Jon Welty, Laura J. Burton, and Janelle E. Wells. 2014. “Examining the influence of transformational leadership, organizational commitment, job embeddedness, and job search behaviors on turnover intentions in intercollegiate athletics.” *Leadership and Organization Development Journal* 35(8): 740–55. <https://doi.org/10.5465/amr.2002.7389900>

Privitera, Carmel, and Marilyn Anne Campbell. 2009. “Cyberbullying: The new face of workplace bullying?” *Cyberpsychology and Behavior* 12(4): 395–400. <https://doi.org/10.1089/cpb.2009.0025>

Park, M., & Choi, J. S. (2019). Effects of workplace cyberbullying on nurses’ symptom experience and turnover intention. *Journal of Nursing Management*, 27(6), 1108–1115. <https://doi.org/10.1111/jonm.12779>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Peachey, J. W., Burton, L. J., & Wells, J. E. (2014). Examining the influence of transformational leadership, organizational commitment, job embeddedness, and job search behaviors on turnover intentions in intercollegiate athletics. *Leadership and Organization Development Journal*, 35(8), 740–755. <https://doi.org/10.1108/LODJ-10-2012-0128>

Perrewé, P. L., & Zellars, K. L. (1999). An examination of attributions and emotions in the transactional approach to the organizational stress process. *Journal of Organizational Behavior*, 20(5), 739–752. [https://doi.org/10.1002/\(SICI\)1099-1379\(199909\)20:5<739:AID-JOB1949>3.0.CO;2-C](https://doi.org/10.1002/(SICI)1099-1379(199909)20:5<739:AID-JOB1949>3.0.CO;2-C)

Raskauskas, J., & Huynh, A. (2015). The process of coping with cyberbullying: A systematic review. *Aggression and Violent Behavior*, 23, 118–125. <https://doi.org/10.1016/J.AVB.2015.05.019>

Rim, Y. (1992). Machiavellianism and coping styles. *Personality and Individual Differences*, 13(4), 487–489. [https://doi.org/10.1016/0191-8869\(92\)90079-5](https://doi.org/10.1016/0191-8869(92)90079-5)

Szabó, ZP et al. “The importance of dark personality traits in predicting workplace outcomes.” *Elsevier*. 183. <https://doi.org/10.1016/j.paid.2021.111112>

Tenenhaus, Michel, Vincenzo Esposito Vinzi, Yves Marie Chatelin, and Carlo Lauro. 2005. “PLS path modeling.” *Computational Statistics and Data Analysis* 48(1): <https://doi.org/10.1016/j.csda.2004.03.005>

Tokarev, Alexander, Abigail R. Phillips, David J. Hughes, and Paul Irwing. 2017. “Leader dark traits, workplace bullying, and employee depression: exploring mediation and the role of the dark core.” *Journal of Abnormal Psychology* 126(7): 911–20. <https://doi/10.1037/abn0000299>

Uddin, Md. Kafil, Sharmin Akther, and Anindita Saha Tumpa. 2016. “Factors influencing job satisfaction of employees: a study on telecommunication sector of Bangladesh.” *European Journal of Business and Management* 8(10): 57–64. [https://doi.org/10.1016/S2212-5671\(15\)00524-92021](https://doi.org/10.1016/S2212-5671(15)00524-92021).

Wilson, C. J., & Nagy, M. S. (2017). The effects of personality on workplace bullying. *Psychologist-Manager Journal*, 20(3), 123–147. <https://doi.org/10.1037/mgr0000054>

Włodarska, K. A., Zyskowska, E., Terebus, M. K., & Rogoza, R. (2021). The dark triad and bis/bas: A meta-analysis. *Current Psychology*, 40(11), 5349–5357. <https://doi.org/10.1007/s12144-019-00467-8>

Xiongfei, Ali N. Khan, Ghulam H.K. Zaigham, and Naseer A. Khan. 2019. “The stimulators of social media fatigue among students: Role of moral disengagement.” *Journal of Educational Computing Research* 57(5): 1083–1107. <https://doi.org/10.1177/0735633118781907>.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Managerial Entrenchment and Firm Performance: Evidence from Kse-100 Index**

Fareeha Waseem

Kinnaird College for Women, Lahore

Nimra Shaukat-

Kinnaird College for Women, Lahore

Syeda Fizza Abbas

Kinnaird College for Women, Lahore

**Abstract**

The given study attempts to investigate the impact of managerial entrenchment on corporations' financial performance in the emerging economy of Pakistan. The given study employs the CEO share as the measure of Managerial entrenchment and studies its impact on financial performance of companies. In pertinent to this, multivariable regression has been utilized by employing the top performing corporations listed on KSE-100 index. For quantification for financial performance, this study employs the two response variables used to quantify financial performance as "return on assets (ROA)" and "Tobin's Q". This study comprises 318 observations, from 53 non-financial companies of Pakistan Stock Exchange (PSX), over 6 years period (2015-2020) from the annual reports of companies. Based on the "ROA" and "Tobin's Q" indicators, hypothesis testing shows that there is a significant linkage between managerial entrenchment and financial performance of corporations. With the increase in administrative entrenchment, the financial performance of corporations tends to reduce. This study is one of the few research studies conducted in a developing region – Pakistan. The study's shortcoming stems from the lack of data for certain factors, such as CEO individual compensation and directors' salaries, in Pakistan's KSE-100 index Corporations. Furthermore, the scope of this research is narrow as its sample includes companies from KSE-100 index companies only. Nonetheless, its findings can be applied or utilized by businesses included in the KSE-100 listing by reframing the retrenchment structure of the companies. This research extends the literature by comprehensively employing the impact of managerial entrenchment on financial performance of businesses in KSE-100 index companies that was predominately neglected by the previous researchers.

**Keywords:** Corporate Governance (CG), Firm performance, Managerial/Management Entrenchment

**Introduction**

Managerial entrenchment is a phenomenon that can be understood as a managerial power to expropriate wealth. It is a form of agency conflict between shareholders and managers (García-Sánchez, Hussain, Khan, & Martínez-Ferrero, 2020). It is a term used in business management to describe a situation in which managers exploit their organizational designation to act in ways which benefit them merely instead of the organization and the shareholders. Due to the split of ownership and administration, as representatives of the equity owners, managers are held accountable for running the companies (Fama & Jensen, 1983). Agency problem arises due to



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

disintegration of ownership and management in an organization. (Boubakri & Ghouma, 2010; Gompers, Ishii, & Metrick, 2010; Paligorova & Xu, 2012) There are two dimensions to the problems caused by agency conflicts. Minority shareholders are expropriated due to conflict of interest among major and minor shareholders, which leads to management engaging in opportunistic behavior (Shleifer & Vishny, 1997). However, research reveals that administrators in firms with higher capital are to a lesser extent expected to take advantage of opportunities. (Habib & Hasan, 2017; Jha & Cox, 2015)

In previous studies managerial entrenchment has been described as a corporate governance crisis that emerges when terminating/replacing the CEO is complicated and allows managers to involve in activities against the benefits of the owners (Morck, Shleifer, & Vishny, 1988). Entrenchment enables managers to perform inefficiently by instituting low-quality procedures and making impulsive choices, resulting in lower-value organizational output (Bloom, Genakos, Sadun, & Van Reenen, 2012). CEO entrenchment is viewed to be negatively linked to business success, according to agency theory. (Fama & Jensen, 1983; Morck et al., 1988) Entrenchment allows managers to focus on personal own interests, which might or might not be profit-raising for the organization (Baratiyan & Salehi, 2013). The incompetency of the applied corporate governance regulations to establish administrative authority is referred to as entrenchment (Berger, Ofek, & Yermack, 1997). Entrenched managers are incentivized to engage in their own interests instead of shareholder welfare. By inflating their salary levels, strong and authoritative CEOs are able to obtain personal benefits and managerial supremacy has a major influence on CEO salary (Eldenburg, Hermalin, Weisbach, & Wosinska, 2004).

A decline in performance of the business is likely to add to the probability of CEO replacement. Nevertheless, when CEO gains more power and influence within the organization, the relationship between turnover and performance may become less sensitive, resulting in an over-entrenched CEO. Over-entrenched CEOs are more probable to be manipulating and influential, which is evident in their remuneration. The remuneration of the CEO grows with the growth of CEO's authority within the company. A greater firm valuation is linked to a strong corporate governance system (L. A. Bebchuk, Cremers, & Peyer, 2011; Eldenburg et al., 2004). Organizations with inadequate governance arrangements meet greater agency concerns and underperform as a result. Corporate boards are selected to uphold the fiduciary responsibility to safeguard the interests of stockholders. Family members are more likely to oversee, and rebuke connected agents because they have a longer investment horizon (Adams & Ferreira, 2007). A further agency dilemma develops in a company between large and small shareholders. Individual shareholders control almost two-thirds of East Asian businesses (Claessens, Djankov, & Lang, 2000). Families can gain control of a company through crossholdings or voting agreements which are later used to push a family representative to the highest managerial position (Pérez-González, 2006). The proportion of relatives in the panel structure is positively linked to excess board remuneration. However, not all family businesses pay their board members more than their contemporaries, but primarily those that appoint a non-family individual as CEO. Family members included in the directors may bring essential expertise and abilities to businesses with an outsider CEO, but the existence of family boards cannot rationalize company performance for firms with an outsider CEO. (Harris & Helfat, 1997)

As per the agency theory, CEO and managerial entrenchment is negatively associated with firm



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

performance because such a trait increases management's authority over stakeholders, and allows the appointed managers to focus on personal own gains, which may or may not be wealth-raising for the business (Baratiyan & Salehi, 2013; Eisenhardt, 1989; Jensen & Meckling, 1976). When one person or organization – known as the agent – is designated to make decisions on behalf of an individual or entity – known as the principal – the principal-agent problem arises. This occurs when agents strive to act according to their personal interests, which may be at odds with their principals'. When organizations progressively become submissive to managers with ownership stakes, challenges arise. Management is hardly supervised since shareholders are deterred from intervening.

With new enterprises' entrants every day, businesses have become more dynamic over time. As a result, gaining competitive advantage has become critical for businesses. The most difficult challenge any company faces in running its operations is finding people who are truly committed to the company. When the designated management fails to execute well and serve the firm properly, difficulties are most likely to arise. All these internal disagreements can result in increased expenditures and inefficiencies, which can harm the company's overall performance.

As researchers, we expect that with completion of this study, we would be able to verify whether there is a substantial relation among management entrenchment within a firm and its performance by observing Pakistan's top performing enterprises. Investors can utilize the findings of this study as a starting point to gain a better understanding and enhance their investing decision-making skills, allowing them to get the most out of their investment.

The goal of the research is to find an answer to the following question:

Is financial performance of firms affected by management entrenchment?

This research has been carried out for the investigation of the linkage of administrative methods and consequent business performance, which is mentioned below:

To ascertain the influence of management and administrative entrenchment on financial performance of businesses in Pakistan

Existing literature is insufficient to examine the impact of managerial entrenchment on business performance.

This study shall contribute to fill the existing literature gap and clarification of factors affecting the financial performance of businesses. This research is also aimed at to identifying the impact of stated indicators causing changes in firm performance.

### **Literature Review**

The agency theory refers to a situation where the owner appoints a manager and delegates the responsibilities and decision-making power to that individual. In such a situation, each involved entity tries to maximize their gains. Managers frequently tend to manipulate stakeholders and erect organizational facades in order to satisfy conflicting expectations (García-Sánchez et al., 2020).

The hedging theory is supported by evidence that derivatives have a favorable influence on a business' overall value. Due to a detrimental impact of derivatives and management entrenchment on the firm value, appointed managers are less likely to hedge when they have excessive shares (Zamzmir, Haron, & Othman, 2021). Firm's appointed managers lessen the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

allotment of inside cash flows in investments when there is a risk of financial constraints. Management entrenchment encourages making unwise and ineffective investments, such as undue over-investments or under-investments. Devious managers use internal funds to engage in wasteful investments in times of financial constraints (Ranasinghe, 2021).

The anti-takeover clauses in (L. Bebchuk, Cohen, & Ferrell, 2009)'s E-index are used to calculate excess entrenchment and to measure management entrenchment in a given year. Negative-positive administrative entrenchment has different implications on a business' corporate authority and operation, according to this research. The turnover-performance sensitivity is inversely proportional to the growth in positive surplus CEO entrenchment. CEOs who are over-entrenched are less expected to be dismissed based on incompetency than individuals who are under-entrenched. Management entrenchment has a negative and considerable effect on the association of investment composition and business value, which contradicts “capital irrelevance theory” and “agency theory” (Doorasamy, 2021).

Expansion of management entrenchment entails a rise in CEOs' power within the organization. Being more entrenched causes the movement of managerial aims towards boosting CEO's personal advantages. Management entrenchment and authority is a two-edged sword. It offers managers job safety and allows them to make long-term investment in risk-free projects. In high competition markets, the authority of CEO in a firm positively impacts the firm value (Sheikh, 2018). Contrarily, entrenched managers tend to engage in their personal gains without being questioned or held responsible. Therefore, management entrenchment may perhaps increase agency costs and bring down the likelihood of terminating unqualified and unskilled CEOs. (Dah, Jizi, & Kebbe, 2020)

Competition offers lower shareholder protection by limiting managers to cater to more personal benefits. Managerial entrenchment has no influence on the relationship between risk-taking and merchandise competition in the market (Salehi, Daemi, & Akbari, 2020). A statistically substantial and encouraging impact of such managerial ownership is visible on firm's performance which has been concluded using meta-regression analysis (Iwasaki & Mizobata, 2020).

Family operated firms perceive external dangers and threats as an opportunity. Managerial entrenchment in family operated firms resulted in long-term investments in R&D. One strength that family firms possess is their commitment to embark on long-term investment commitments during an economic distress. (Sun, Lee, & Phan, 2019)

The gender of directors is insignificant in relevance to firm performance and negative linkage exists among capital concentration and firm performance. According to the regression method employed in the investigation, the age of the company has a negative relationship with net compensation of each member of staff for small-scale businesses and is insignificant for medium businesses. Furthermore, the operational size and dimension of a business is linked to its business performance (Vu, Nguyen, Ho, & Vuong, 2019).

Due to management ownership, there is an increase in firm performance and a drop in financial performance when directors are entrenched. For board independence, the results strengthen stewardship theory. According to Bolton (2014), earnings management, such as Tobin's Q, can be used by directors and managers to improve temporary corporate performance. Firm performance is also affected by external factors such as market development and corporate





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

control. Effective CG recommends that a board should comprise of greater part of independent directors including the chairperson. These suggestions comply with “agency theory”, e.g., administrators struggling to fulfill personal pursuits. Yet, such beliefs do not comply with “stewardship theory” (Shan, 2019).

Management competence and overconfidence are positively linked with financial performance and its improvement. Agency expenses have no bearing on business performance, and managerial entrenchment is inversely related to firm performance, resulting in a drop in firm performance (Salehi & Moghadam, 2019).

Entrenched managers engage less in manipulative activities in Iranian firms. (Salehi, Mahmoudabadi, & Adibian, 2018) When developing and implementing the firm's capital structure policy, managers should keep in mind that credit risk is a significant consideration. To enhance firm performance, entrenched managers in corporate firms with a minimal credit risk ought to focus on providing a certain low level of debt ratio (Li, Niskanen, & Niskanen, 2018).

Business performance and corporate governance have a positive association. CEOs prioritize their own benefits instead of the shareholders. An effective CG enhances the firm's productivity and credibility. Excellent corporate governance can be practiced by hiring directors to examine and monitor the CEO's activities and management. The association of governance and business performance is influenced by CEO entrenchment. Administrative mandate may struggle to perform well in companies with a high level of management entrenchment, demonstrating that CG has a considerable effect on business execution. (Sukhahuta, 2018)

The efficacy of CG processes should be deemed conditional regarding the ownership structure of firms. The positive impact of CG on performance is maximum when ownership is held by local corporations or the government. (Abdallah & Ismail, 2017). Industry revenue and management entrenchment grow during a recession period. They have contradictory influence on organizational value. The negative and unfavorable influence of entrenchment overshadows the positive effect of industry revenue. A downturn offers entrenched managers to obtain more personal benefits (Dah, 2016). No substantial connection exists among governance structure and business performance. This result is coherent with concurrent conditions. (Akbar, Poletti-Hughes, El-Faitouri, & Shah, 2016). Efficient composition of directors is vital to agency theory's recommendation to resolve the difficulties emerging due to segregation of ownership and control. (Conheady, McIlkenny, Opong, & Pignatel, 2015)

Private equity firms have better management compared to government, family, and private firms of developing and developed countries. (Balsmeier & Czarnitzki, 2017) Standard agency problem exists due to the lesser division of ownership concentration which is governed by a ‘personal gain of control’. (Bloom, Sadun, & Van Reenen, 2015). Corporations with a larger number of independent and unbiased directors have additional external funding sources, more “short-term debt”, and higher “long-term debt” than “short-term liabilities and have external equity than long-term debt. (Alves, Couto, & Francisco, 2015).

Firms with debt financing have meaningfully higher leverage than those without it and that the use of debt is linked with the risk of private ownership. Investment composition of corporations is affected by the private ownership activities of owners that have surplus management rights (Paligorova & Xu, 2012). Firm performance is negatively associated with CEO turnover. Likewise, CEOs' organizational authority, political affiliations, and in-service authority can



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

enhance their capability to be protected against spontaneous replacement. Additionally, two aspects of CEO ownership authority, the government held securities and acting as the ambassador of the major shareholder, tends to be beneficial in decreasing the possibility of enforced CEO takeovers. (Pi & Lowe, 2011) Segregation of control allows the appointed manager to pursue personal interests, even if costs the owners. (Mustapha & Ahmad, 2011)

Ownership pattern in firms is linked with decreased intentional revelations. The evaluation is based on the assumption that ownership pattern of the board increases floatation costs such as agency costs (Akhtaruddin & Haron, 2010). Shareholders' interests are more efficiently fulfilled when shareholder protection is not assigned to CEOs. Appointed managers might exploit associations with stakeholders as an efficient entrenchment approach (Cespa & Cestone, 2007).

The decrease of possibility of CEO takeover is common in family firms which have a poor performance record, leading to entrenchment of family members appointed as CEO. Stock prices fluctuate based on changes in the ownership. (Hillier & McColgan, 2005). Household oriented corporations perform well compared to the firms having non-family ownership. When a family affiliate serves as CEO, firm performance is healthier. Generally, results suggest family ownership is a beneficial organizational arrangement (Anderson & Reeb, 2003). Shareholder wealth is increased when ownership concentration decreases. The fluctuations in the share prices are linked to the equity stake of deceased holders of a firm. Firms become targets of takeover offers because of shareholder mortality, with only three-quarters of bids being successful and the rest being unfavorable (Slovin & Sushka, 1993).

## The Research Methodology

### Sample Data

Financial data of 53 non-financial businesses of Pakistan Stock Exchange (PSX), over 6 years (2015-2020), from their annual reports will be included for research purpose.

### Hypothesis

Some studies suggest that Management Entrenchment has an encouraging impact on financial performance of firms while the rest depict a negative relation. The following hypothesis has been formulated for further evidence:

$H_1$ : Managerial Entrenchment has an influence on financial performance of businesses.

$H_0$ : Managerial Entrenchment does not have an influence on financial performance of businesses.

### Main Model of Study

To assess the hypothesis, below-mentioned regression model is used,

$$ROA_{it} = \alpha_1 + \alpha_2 \text{Management Entrenchment}_{it} + \alpha_3 \text{Institutional Ownership}_{it} + \alpha_4 \text{Ownership Concentration}_{it} + \alpha_5 \text{Debt}_{it} + \alpha_6 \text{Dividend}_{it} + \alpha_7 \text{Size}_{it} + \alpha_8 \text{Investment}_{it} + \varepsilon_{it}$$

$$\text{Tobin's } Q_{it} = \alpha_1 + \alpha_2 \text{Management Entrenchment}_{it} + \alpha_3 \text{Institutional Ownership}_{it} + \alpha_4 \text{Ownership Concentration}_{it} + \alpha_5 \text{Debt}_{it} + \alpha_6 \text{Dividend}_{it} + \alpha_7 \text{Size}_{it} + \alpha_8 \text{Investment}_{it} + \varepsilon_{it}$$

Each econometric model is applied once for “return on assets (ROA)” and for “Tobin’s Q ratio” measurement.

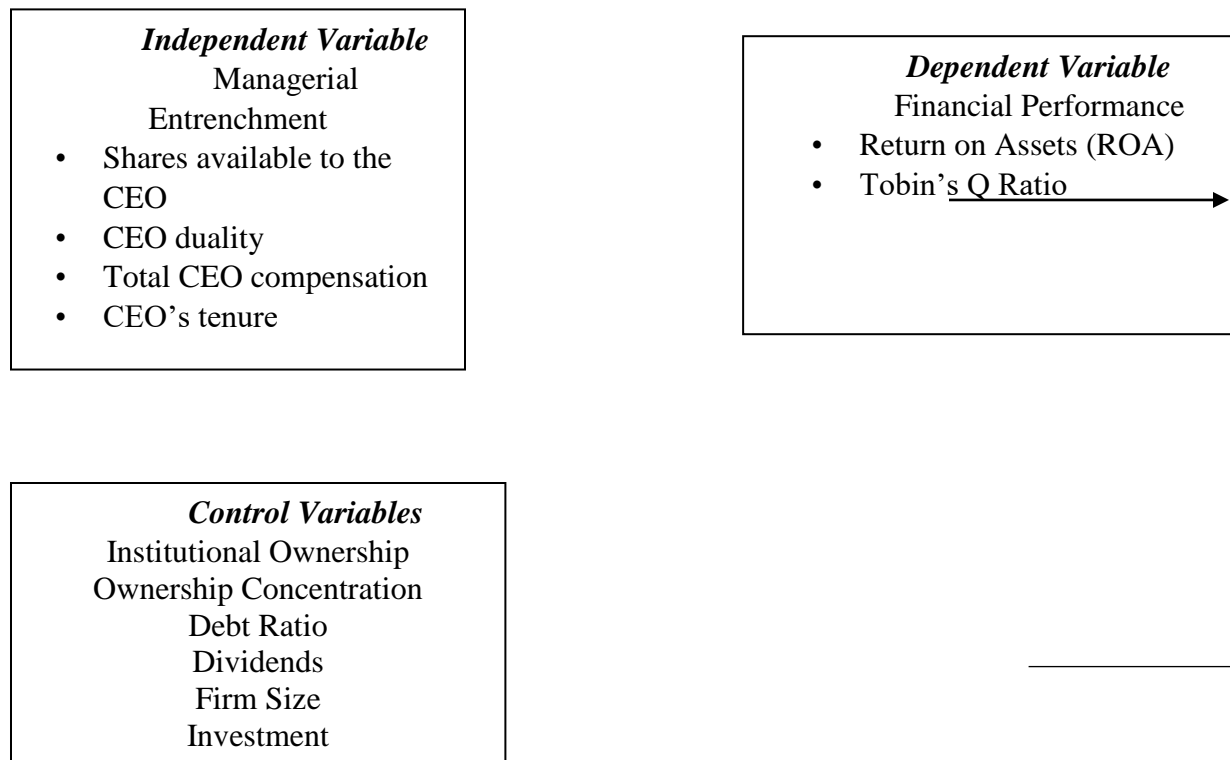




**Conceptual Framework**

The conceptual framework depicted below shows the relation among predictor and predicted variables. Predictor variables show potential impact on the predicted variables. The predictor variable is Managerial Entrenchment which is measured on CEO share. The dependent variable includes Financial Performance which is evaluated based on two indicators. “Return on assets (ROA)” determines profitability of businesses and “Tobin’s Q” ratio determines decision making of the firm.

Table 1 Conceptual Framework



**Conceptual Framework**

A higher degree of managerial entrenchment and segregation of proprietorship and management has a substantial impact on firm performance (Salehi, Mahmoudabadi, Adibian, & Ranjbar, 2020). The Agency Theory (Mitnick, 2019) is crucial for this study as it discusses the principal-agent problem.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### Variables

The following variables are included in the study. Their measurement is described below:

*Table 2 Variables*

Variable	Measurement	Reference
Independent Variable Management Entrenchment	<i>CEO Share</i> = number of shares in possession of board of directors and CEO	(Fagbemi, Osemene, & Agbaje, 2020)
Dependent Variables Firm Performance	<i>Return on Assets</i> = profit before tax deduction ÷ recorded value of total assets <i>Tobin's Q Ratio</i> = Market Capitalization of Firm ÷ recorded value of total assets	(Salehi, Mahmoudabadi, et al., 2020)
Control Variables Institutional Ownership Ownership Concentration Debt Ratio Dividends Firm Size Investment	<i>Institutional Ownership</i> = proportion of total shares of firms owned by other institutions <i>Ownership Concentration</i> = number of shares possessed by major shareholders <i>Debt Ratio</i> = total debt ÷ total assets <i>Dividends</i> = Dividend per individual Share ÷ EPS <i>Firm Size</i> = Net sales of a corporation <i>Investment</i> = fixed assets ÷ total assets	(Salehi, Mahmoudabadi, et al., 2020)

### Research Methodology

Multiple variable regression test will be carried out using Stata. The data will be evaluated to see how the independent and dependent variables are related.

**Research Findings**

*Table 3 Descriptive Statistics*

Variable	Obs.	Mean	Std. Dev.	Min	Max
Tobin’s Q Ratio	318	1.007	0.9423	0	3.9403
ROA	318	11.1408	14.2332	-33.93	78.2
CEO Share	318	0.1253	0.2131	0	0.9468

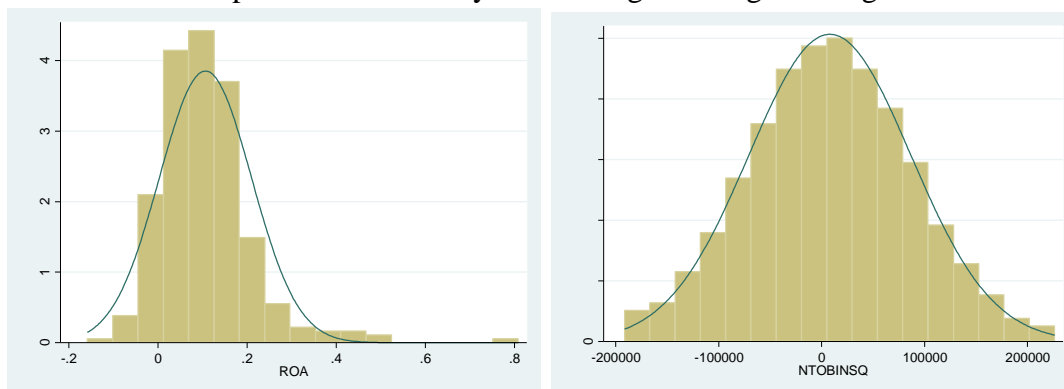
The explanatory figures are shown in the table above, which include information on the average, standard deviation, least, and highest values of data. The greatest standard deviation is for investment equivalent to 46.9062 and the lowest standard deviation is for board independence equivalent to 0.1501.

The descriptive figures for the variables under study are also shown in the table above. The mean “Return on Assets” of the KSE-100 index companies is 0.1064, while the average “Tobin's Q Ratio” is 1.007. This suggests that, as compared to market valuation, public companies perform significantly better in terms of asset profitability. The study comprises of 01 independent variable, 02 dependent variables and 06 control variables.

**Normality of Data for Dependent Variable**

The dependent variables of the study are tested for normality using multiple tests.

The normality of the predictand variables – “ROA” and “Tobin’s Q” is verified through the Shapiro Francia and Shapiro Wilk normality tests after generating a Histogram.



*Figure 1 Histogram Before*

The dependent variable Return on Assets exhibits an asymmetric pattern which is marginally positively biased on the right side, indicating a non-normal dissemination of values. The "return on assets" dataset is positively skewed. Tobin’s Q Ratio has a normal distribution.

The value in random sampling from a population that diverges irregularly from other values is called an outlier. “Return on Assets” and “Tobin’s Q Ratio” are dependent variables in the study. Both the variables were tested for outliers. Both the dependent variables have multiples outliers.

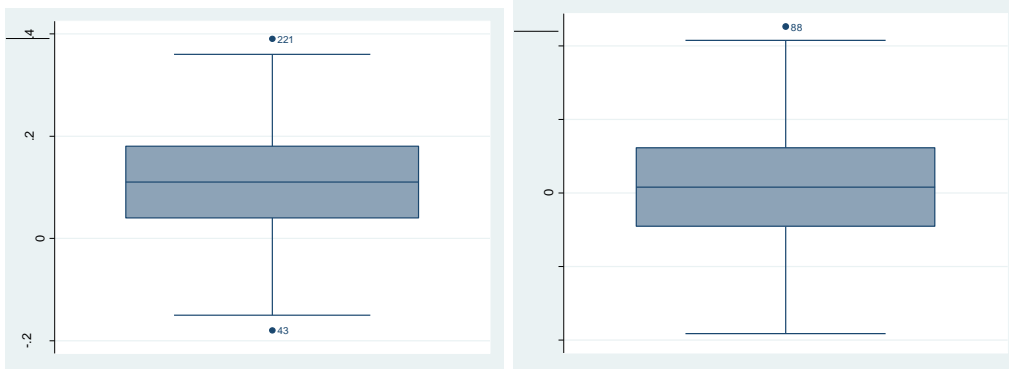


Figure 2 Box Plots Before

Winsorization is a statistical transformation that reduces the impact of potentially erroneous outliers by restricting extreme values in statistical data. The outliers in the subject datasets were removed using winsorization.

Normality of data for “Return on Assets” has been achieved through transformation of variable using SPSS.

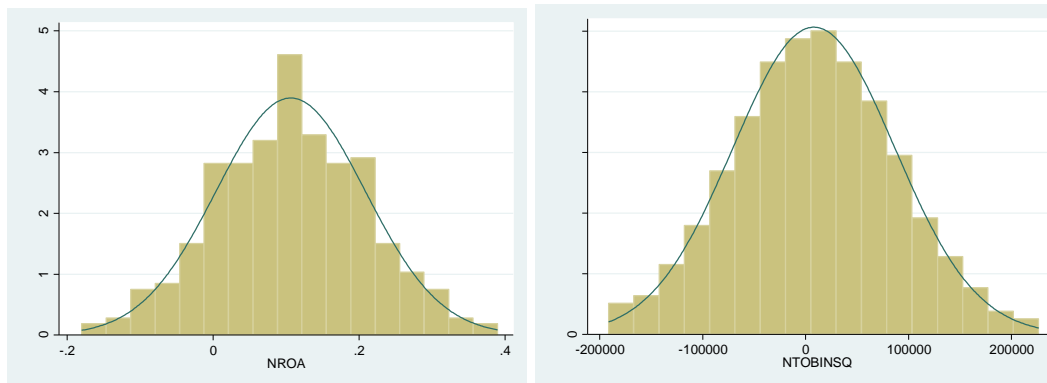


Figure 3 Histogram After

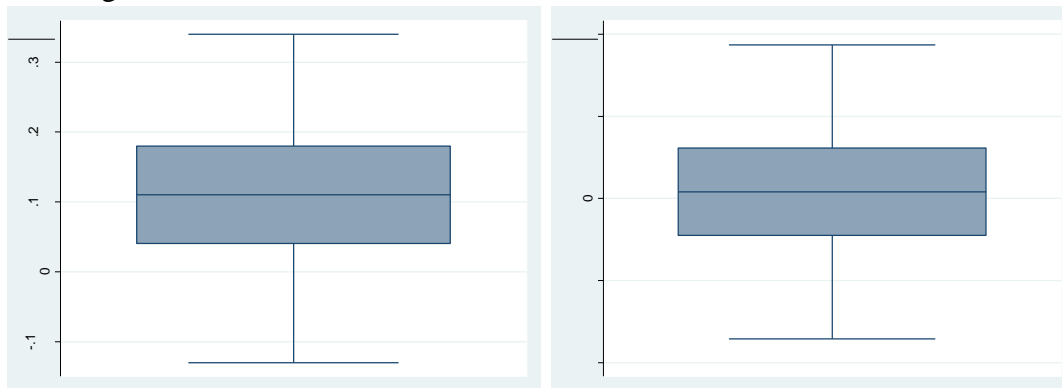


Figure 4 Box Plots After



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The new NROA and NTOBINSQ variables show a bell-shaped symmetric distribution shape, as seen in the histogram and box plot above, indicating that the dataset is normally distributed.

### **Shapiro-Wilk Test for normality**

A statistical procedure known as *Shapiro-Wilk* test is used for determining if a continuous variable has a normal distribution.

H<sub>0</sub>: The sample data for “ROA” and “Tobin’s Q” follows a normal distribution.

H<sub>1</sub>: The sample data for “ROA” and “Tobin’s Q” does not follow a normal distribution.

Table 4 Swilk Test ROA and Tobin’s Q

### **Shapiro-Wilk W test for normal data**

Variable	Obs.	W	V	z	Prob>z
NROA	317	0.99917	0.185	-3.972	0.99996
NTobinsQ	317	0.99852	0.331	-2.603	0.99538

The p-value for swilk test run on Return on Assets is 0.999 and 0.995 for Tobin’s Q Ratio. Since the p-value yielded by the procedure is greater than the significance level, we accept H<sub>0</sub> and decide that data is normally distributed for both the dependent variables.

### **Shapiro-Francia Test for normality**

The *Shapiro-Francia* test is a statistical procedure for determining if a population is normal based on sample data. The normality of the dataset is indicated by the p-values. The conclusion has been drawn as both the p-values are lesser than the chosen level of significance decided for this study.

### **Return on Assets**

Table 5 Sfrancia ROA and Tobin’s Q

### **Shapiro-Francia W’ Test for normal data**

Variable	Obs.	W’	V’	z	Prob>z
NROA	317	0.99982	0.043	-6.96	1.0000
NTobinsQ	317	0.99990	0.025	-7.867	1.0000

H<sub>0</sub>: The data for “ROA” and “Tobin’s Q” is normally distributed.

H<sub>1</sub>: The data for “ROA” and “Tobin’s Q” is not normally distributed.

The p-value for the sfrancia test on “Return on Assets” and “Tobin’s Q Ratio” is 1. As the p-value is greater than the threshold of significance, we acknowledge the *null hypothesis* and infer that data for both dependent variables is regularly distributed.

### **Multicollinearity**

Multicollinearity occurs when multiple predictor variables are linearly connected. The predictor and predictands should not have Multicollinearity. As the “*Variance Inflation Factor (VIF)*” estimates are smaller than 10, all the predictor variables are independent, and therefore Multicollinearity is not present. A value of less than 5 is, nonetheless, ideal.

### **VIF Before**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Variable	VIF	1/VIF
CEO Share	22.67	0.0441
Ownership Control	22.57	0.0443
Institutional Ownership	1.16	0.8585
Dividends	1.05	0.9514
Firm Size	1.05	0.9552
Investment	1.03	0.9742
Debt Ratio	1.03	0.9784
Mean VIF	7.22	

Table 6 VIF Before

To attain an ideal value of VIF, a control variable – Ownership Control has been dropped.

#### VIF After

Table 7 VIF After

Variable	VIF	1/VIF
CEO Share	1.15	0.8682
Institutional Ownership	1.16	0.8585
Dividends	1.05	0.9515
Firm Size	1.05	0.9556
Investment	1.03	0.9742
Debt Ratio	1.03	0.9784
Mean VIF	1.08	

#### Autocorrelation

The auto correlation of a variable measures the link between its current and previous values.

H<sub>0</sub>: Data is autocorrelated.

H<sub>1</sub>: Data is not autocorrelated.

Bgodfrey Test for Return on Assets

Table 8 Bgodfrey Test ROA and Tobin's Q

Lags(p)	Chi2	Df	Prob>chi2
1	5.779	1	0.0162
1	0.262	1	0.6089

We reject H<sub>0</sub> since the p-value of our test results is less than 0.05, implying that the data set for Return on Assets has auto correlation. A test p-value of 0.6089, higher than the significance level, indicates that the data set for Tobin's Q Ratio does not have autocorrelation.



**Heteroskedasticity**

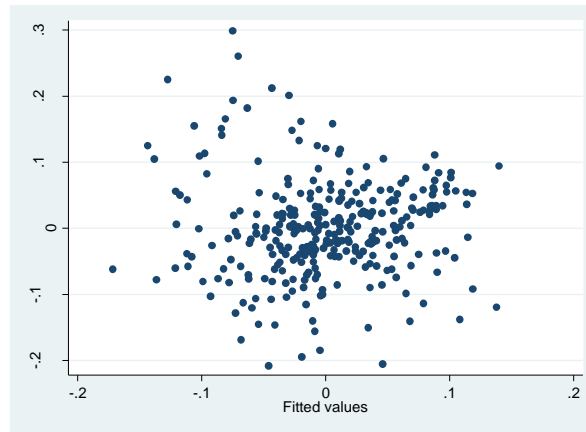


Figure 5 Scatter Plot of Residuals for ROA

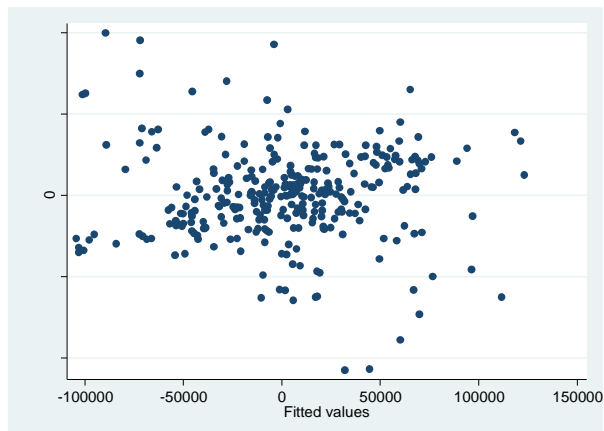


Figure 6 Scatter Plot of Residuals for Tobin's Q Ratio

The data must be homoscedastic. The graphical representation of residuals above displays an outward pattern, indicating that the variances of the residuals are not equal which deduces that the data set is heteroskedastic. The Breusch Pagan test for random effects is then used to ensure that the results are legitimate.

**Breusch-Pagan Test**

Table 9 Breusch-Pagan Test ROA

$\text{Chi}^2(1) = 0.24$

$\text{Prob} > \text{chi}^2 = 0.6207$

Breusch-Pagan Test for Tobin's Q Ratio

Table 10 Breusch-Pagan Test Tobin's Q

$\text{Chi}^2(1) = 0.04$

$\text{Prob} > \text{chi}^2 = 0.8496$



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**H<sub>0</sub>: Dataset is homoscedastic**

**H<sub>1</sub>: Dataset is heteroskedastic**

As the significant value of the Breusch Pagan test is 0.6207 for “ROA” and 0.8496 for “Tobin's Q” Ratio, both of which are higher than the significance level, 0.05, we accept the null hypothesis to conclude that the data is homogenous and does not follow heteroskedasticity.

### Regression Analysis

The Hausman test facilitates in the selection of a “fixed effects” or “random effects model” for panel data.

#### Return on Assets – Dependent Variable 01

**Table 11 Hausman Test ROA**

Hausman Test	
Chi2 (4)	261.47
Prob>chi2	0.000

**H<sub>0</sub>: The ideal model for dataset is “random effects”**

**H<sub>1</sub>: The ideal model for dataset is “fixed effects”**

The p-value is zero, which is less than the threshold of significance of 0.05. Consequently, we dismiss our null hypothesis in preference of the substitute, leading to the conclusion that the “fixed effect model” is suitable for examining the impact of “Return on Assets” on the independent variable.

*Table 12 Regression Analysis ROA*

NROA	Coeff.	Std. Err.	P> z
CEO Share	-0.015851	0.0007112	0.027
Institutional ownership	0.0001767	0.00036	0.624
Debt Ratio	0.024704	0.0085636	0.004
Dividends	-0.00002107	0.0001582	0.184
Firm Size	1.09e-13	9.73e-14	0.263
Investment	-0.00000412	0.0000853	0.629
R-Square	Within	Between	Overall
	0.0687	0.0799	0.0319

The link between “Return on Assets” and Management Entrenchment explains a 3.19 percent variation in Return on Assets in this model, with R Square= 0.0319. The independent variable has a considerable impact on “Return on Assets” because “Management Entrenchment” (as measured by CEO Share) has a P value less than 0.05. Control variables – institutional ownership, investment, and dividends have a negligible impact on “Return on Assets”.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Tobin's Q Ratio – Dependent Variable 02**

*Table 13 Hausman Test Tobin's Q*

Hausman Test	
Chi2 (4)	6.33
Prob>chi2	0.2750

**H<sub>0</sub>: The ideal model for dataset is “random effects”**

**H<sub>1</sub>: The ideal model for dataset is “fixed effects”**

A test-value of 0.2750 is higher than the *level of significance*. Therefore, we accept the null hypothesis and conclude that the random effect model is appropriate for investigating the impact of Tobin's Q Ratio on our independent variable.

Random Effects Regression Model

*Table 14 Regression Analysis Tobin's Q*

NTobinsQ	Coef.	Robust Std. Err.	P> z
CEO Share	-7.62e-08	2.79e-08	0.006
Institutional ownership	-59.95509	235.58888	0.799
Debt Ratio	2304.962	3876.743	0.552
Dividends	619.2781	166.31111	0.000
Firm Size	-16659.71	25430.9	0.512
Investment	74.07569	5.322973	0.000
R-Square	Within	Between	Overall
	0.0805	0.1641	0.1312

Based on this model, R Square= 0.1312, implying that the association of “Tobin's Q” ratio and “Management Entrenchment” justifies a 13.12% variation in Tobin's Q Ratio. Because Management Entrenchment has a P value lesser than 0.05, it is determined that the independent variable has a robust significant impact on “Tobin's Q”. The effect of control variables such as “institutional ownership”, “debt ratio”, and “dividends” on “Tobin's Q” is inconsequential.

Autocorrelation assumptions had not been met previously. As a result, the final regression model, which contained catering autocorrelation, was run with the vce (robust) command. The standard errors are robustified by this command

**Empirical Results & Discussion**

The regression models yield p-values of 0.0054 for “Returns on Assets” and 0 for “Tobin's Q”, respectively. We reject the null hypothesis since both values are less than the chosen level of significance, 0.05. The study's empirical findings reveal that entrenched managers have an influence on an organization's performance and fiscal stability. This argument is because most appointed managers prioritize their own personal interests over the needs and performance of the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

company. With a test value of 0.027, it is evident that the CEO share considerably impacts the dependent variable "Return on Assets." The sample data provides adequate evidence against the null hypothesis. CEO Share is statistically meaningful for both dependent variables.

For CEO share versus Tobin's Q Ratio, a p-value of 0.006 and a less than *significance level* of 0.05 suggests that the variable has a substantial effect on Tobin's Q Ratio.

CEO Share has a negative coefficient for both "*Return on Assets*" and "*Tobin's Q Ratio*."

When the predictor variable rises, the response variable tends to decline, indicating a negative coefficient value. The coefficient value represents how much the average of the dependent variable changes when the independent variable is changed by one unit while the other variables under study stay unchanged. It has become evident that management entrenchment significantly influences firm performance. Results of the study align with the existing literature presented by (Salehi et al., 2018), (Salehi, Mahmoudabadi, et al., 2020) and (Salehi, Daemi, et al., 2020). For this study, Hausman Test (Hausman, 1978) was run to select the regression model suitable to be used to obtain comprehensive results (Shan, 2019), (Salehi et al., 2018).

We observed that autocorrelation occurred in the disturbed component by analyzing the Bgodyfey Test. The autocorrelation was not catered individually but instead through a regression test run at the end.

### **Independent Variable**

A test value of 0.027 of CEO share has a substantial impact on the dependent variable "Return on Assets." As the p-value generated by regression test is lesser than the chosen level of significance, the collected test data gives adequate confirmation against the null hypothesis for the entire population. CEO Share is statistically significant for both the dependent variables.

A p-value of less than 0.05 for CEO share versus Tobin's Q Ratio indicates that the independent variable has significant effect on Tobin's Q Ratio. Both "Return on Assets" and "Tobin's Q Ratio" have a negative coefficient value for CEO Share. A negative coefficient value suggests that when the independent variable rises, the dependent variable typically falls.

### **Control Variables**

Institutional ownership, firm size and dividends are insignificant to the study. The coefficients for Institutional ownership and Firm Size are negative with respect to Tobin's Q Ratio. Other control variables yield a positive coefficient value. A significant positive value indicates that as the independent variable's value rises, the dependent variable's mean rises as well.

Managerial entrenchment is not the only factor affecting firm performance. In this study, the entire emphasis lays on managerial practices. Firm performance is estimated by two indicators – "Return on Assets" and "Tobin's Q Ratio". It is to be noted that there are multiple other indicators which impact financial performance of firms. Moreover, these indicators differ for various sectors. For this purpose, this study has been kept generic in terms of sectorial divisions to avoid biased results. The topic for this study stands in uncommon in Pakistan which paves a way for future researchers to focus on this specific domain. With enough and appropriate findings, managerial entrenchment can be tackled to significantly improve firm performance.

This type of empirical study serves as a springboard for additional in-depth research into the behavior of managerial practices within a variety of industries. This research can be highly



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

useful to family-owned businesses since it can assist them to better comprehend the disadvantages of having relatives on the directors.

### **Conclusion**

This research was carried out in Pakistan, an emerging economy, and so contributes to the current literature focused on top performing companies of Pakistan. The methodology employed to evaluate the relation between administrative entrenchment and financial performance of businesses in this research shows substantial evidence that management entrenchment has a substantial influence on the financial performance of the organizations studied. The objective of this research study is to ascertain the probable financial influence of administrative entrenchment. Based on our research, we believe that managerial entrenchment will result in lower business performance with support from existing literature. We find a linkage of company performance and managerial entrenchment based on statistical findings. Analysis reveals a firm connection of business performance and entrenchment of managers. This study's conclusion is dependent on the results of two econometric models' coefficients and significance tests.

Managers may adopt techniques that allow them to strengthen their position, such as satisfying beneficiaries and concerned groups within the company (Salehi, Mahmoudabadi, et al., 2020). Investors are mindful that an appropriate corporate governance process could serve a key role in mitigating the effects of organizational disputes, resulting in enhanced business performance and, as a result, increased capital. For example, directors are offered as corporate governance to align management policy-making procedures with the interests of equity owners to progress the business's efficiency and performance (Abdallah & Ismail, 2017). Ownership concentration could be viewed as a corporate governance process for improving a company's financial performance as suggested by (Pederson, Heenan, & Salamie, 2000).

### **Implications**

The present study gives some implications for investors and shareholders. Managers might employ strategies to gain benefits for themselves. Managers may choose procedures such as meeting the satisfaction of beneficiaries and some certain authorities in the firm, which may enable them to improve their position (Salehi, Mahmoudabadi, et al., 2020). The investors are informed that unsupervised and higher degree of appointed management leads to a decrease in firm performance. Managers may exploit their designation authority in case of absence of supervision which shall ultimately harm the shareholders

### **Recommendations**

Future researchers can increase the sample size by including enterprises other than those listed on KSE-100 index and extend the time frame. Additional control parameters, such as employee remuneration, board compensation, and employee tenure, can be used to see how they affect the overall model. The prospective responsibilities of internal management and auditors in the relationship between administrative entrenchment and business performance can be evaluated in upcoming research studies to make them more comprehensive. It is recommended that firms oversee the managerial activities of designated managers on a frequent basis.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### Limitations

As the study only contains the market's best-performing companies, its findings can only be applied or utilized by businesses included in the KSE-100 listing. This means that low-performing companies/sectors' analysts and decision-makers may not be able to fully profit from its results. The study's shortcoming stems from the lack of data on several factors, such as CEO salary and in board compensation, in Pakistan. In case of the required data availability, investigation of the potential impact of such a parameter on firm performance shall be possible.

### References

- Abdallah, A. A.-N., & Ismail, A. K. (2017). Corporate governance practices, ownership structure, and corporate performance in the GCC countries. *Journal of International Financial Markets, Institutions and Money*, 46, 98-115.
- Adams, R. B., & Ferreira, D. (2007). A theory of friendly boards. *The journal of finance*, 62(1), 217-250.
- Ahmed, N., & Afza, T. (2019). Capital structure, competitive intensity and firm performance: evidence from Pakistan. *Journal of Advances in Management Research*.
- Akbar, S., Poletti-Hughes, J., El-Faitouri, R., & Shah, S. Z. A. (2016). More on the relationship between corporate governance and firm performance in the UK: Evidence from the application of generalized method of moments estimation. *Research in International Business and Finance*, 38, 417-429.
- Akhtaruddin, M., & Haron, H. (2010). Board ownership, audit committees' effectiveness and corporate voluntary disclosures. *Asian Review of Accounting*.
- Alves, P., Couto, E. B., & Francisco, P. M. (2015). Board of directors' composition and capital structure. *Research in International Business and Finance*, 35, 1-32.
- Anderson, R. C., & Reeb, D. M. (2003). Founding-family ownership and firm performance: evidence from the S&P 500. *The journal of finance*, 58(3), 1301-1328.
- Balsmeier, B., & Czarnitzki, D. (2017). Ownership concentration, institutional development and firm performance in Central and Eastern Europe. *Managerial and Decision Economics*, 38(2), 178-192.
- Baratiyan, S., & Salehi, M. (2013). The effect of management entrenchment on the equity capital in Iran. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 7(1), 19-26.
- Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance? *The Review of financial studies*, 22(2), 783-827.
- Bebchuk, L. A., Cremers, K. M., & Peyer, U. C. (2011). The CEO pay slice. *Journal of financial Economics*, 102(1), 199-221.
- Berger, P. G., Ofek, E., & Yermack, D. L. (1997). Managerial entrenchment and capital structure decisions. *The journal of finance*, 52(4), 1411-1438.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Bloom, N., Genakos, C., Sadun, R., & Van Reenen, J. (2012). Management practices across firms and countries. *Academy of management perspectives*, 26(1), 12-33.

Bloom, N., Sadun, R., & Van Reenen, J. (2015). Do private equity owned firms have better management practices? *American Economic Review*, 105(5), 442-446.

Boubakri, N., & Ghouma, H. (2010). Control/ownership structure, creditor rights protection, and the cost of debt financing: International evidence. *Journal of Banking & Finance*, 34(10), 2481-2499.

Cespa, G., & Cestone, G. (2007). Corporate social responsibility and managerial entrenchment. *Journal of Economics & Management Strategy*, 16(3), 741-771.

Claessens, S., Djankov, S., & Lang, L. H. (2000). The separation of ownership and control in East Asian corporations. *Journal of financial Economics*, 58(1-2), 81-112.

Conheady, B., McIlkenny, P., Opong, K. K., & Pignatelli, I. (2015). Board effectiveness and firm performance of Canadian listed firms. *The British Accounting Review*, 47(3), 290-303.

Dah, M. A. (2016). Governance and firm value: The effect of a recession. *Research in International Business and Finance*, 37, 464-476.

Dah, M. A., Jizi, M. I., & Kebbe, R. (2020). CEO gender and managerial entrenchment. *Research in International Business and Finance*, 54, 101237.

Doorasamy, M. (2021). CAPITAL STRuCTuRE, FIRM VALuE AND MANAGERIAL OWNERSHIP: EVIDENCE FROM EAST AFRICAN COuNTRIES.

Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management journal*, 32(3), 543-576.

Eldenburg, L., Hermalin, B. E., Weisbach, M. S., & Wosinska, M. (2004). Governance, performance objectives and organizational form: evidence from hospitals. *Journal of Corporate Finance*, 10(4), 527-548.

Fagbemi, T. O., Osemene, O. F., & Agbaje, O. (2020). Management entrenchment, firm characteristics and earnings management of conglomerate companies in Nigeria. *Jurnal Administrasi Bisnis*, 9(1), 1-14.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics*, 26(2), 301-325.

Gompers, P. A., Ishii, J., & Metrick, A. (2010). Extreme governance: An analysis of dual-class firms in the United States. *The Review of Financial Studies*, 23(3), 1051-1088.

Habib, A., & Hasan, M. M. (2017). Social capital and corporate cash holdings. *International Review of Economics & Finance*, 52, 1-20.

Harris, D., & Helfat, C. (1997). Specificity of CEO human capital and compensation. *Strategic Management Journal*, 18(11), 895-920.

Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the econometric society*, 1251-1271.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Hillier, D., & McColgan, P. (2005). *Firm performance, entrenchment and managerial succession in family firms*. Paper presented at the Asia-Pacific Corporate Governance Conference, Hong Kong.

Iwasaki, I., & Mizobata, S. (2020). Ownership concentration and firm performance in European emerging economies: A meta-analysis. *Emerging Markets Finance and Trade*, 56(1), 32-67.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.

Jha, A., & Cox, J. (2015). Corporate social responsibility and social capital. *Journal of Banking & Finance*, 60, 252-270.

Li, K., Niskanen, J., & Niskanen, M. (2018). Capital structure and firm performance in European SMEs: Does credit risk make a difference? *Managerial Finance*.

Liu, X., & Zhang, C. (2017). Corporate governance, social responsibility information disclosure, and enterprise value in China. *Journal of Cleaner Production*, 142, 1075-1084.

Mitnick, B. M. (2019). Origin of the theory of agency: an account by one of the theory's originators. Available at SSRN 1020378.

Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of financial economics*, 20, 293-315.

Mustapha, M., & Ahmad, A. C. (2011). Agency theory and managerial ownership: evidence from Malaysia. *Managerial Auditing Journal*.

Paligorova, T., & Xu, Z. (2012). Complex ownership and capital structure. *Journal of Corporate Finance*, 18(4), 701-716.

Pederson, J. P., Heenan, P., & Salamie, D. E. (2000). The Thomson Corporation. *International Directory of Company Histories*, 8.

Pérez-González, F. (2006). Inherited control and firm performance. *American Economic Review*, 96(5), 1559-1588.

Pi, L., & Lowe, J. (2011). Can a powerful CEO avoid involuntary replacement?—An empirical study from China. *Asia Pacific Journal of Management*, 28(4), 775-805.

Ranasinghe, D. (2021). Managerial entrenchment, financial constraints, and investment choice in unlisted firms. *International Journal of Finance & Economics*, 26(1), 258-270.

Salehi, M., Daemi, A., & Akbari, F. (2020). The effect of managerial ability on product market competition and corporate investment decisions: evidence from Iran. *Journal of Islamic Accounting and Business Research*.

Salehi, M., Mahmoudabadi, M., & Adibian, M. S. (2018). The relationship between managerial entrenchment, earnings management and firm innovation. *International Journal of Productivity and Performance Management*.

Salehi, M., Mahmoudabadi, M., Adibian, M. S., & Ranjbar, H. R. (2020). The potential impact of managerial entrenchment on firms' corporate social responsibility activities and financial



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

performance: evidence from Iran. *International Journal of Productivity and Performance Management*.

Salehi, M., & Moghadam, S. M. (2019). The relationship between management characteristics and firm performance. *Competitiveness Review: An International Business Journal*.

Shan, Y. G. (2019). Managerial ownership, board independence and firm performance. *Accounting Research Journal*.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance*, 52(2), 737-783.

Slovin, M. B., & Sushka, M. E. (1993). Ownership concentration, corporate control activity, and firm value: Evidence from the death of inside blockholders. *The journal of finance*, 48(4), 1293-1321.

Sukhahuta, D. (2018). *The effect of CEO entrenchment on the relationship between corporate governance and firm performance*. Paper presented at the International Conference on Culture Technology 2018, Working Paper.

Sun, X., Lee, S.-H., & Phan, P. H. (2019). Family firm R&D investments in the 2007–2009 great recession. *Journal of Family Business Strategy*, 10(4), 100244.

Surroca, J. A., Aguilera, R. V., Desender, K., & Tribo, J. A. (2020). Is managerial entrenchment always bad and corporate social responsibility always good? A cross-national examination of their combined influence on shareholder value. *Strategic Management Journal*, 41(5), 891-920.

Vu, T.-H., Nguyen, V.-D., Ho, M.-T., & Vuong, Q.-H. (2019). Determinants of Vietnamese listed firm performance: Competition, wage, CEO, firm size, age, and international trade. *Journal of Risk and Financial Management*, 12(2), 62.

Zamzmir, Z., Haron, R., & Othman, A. H. A. (2021). Hedging, managerial ownership and firm value. *Journal of Asian Business and Economic Studies*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Assessing Students' Expectations and Perceptions Gaps Regarding Service Quality of Business Schools Using SERVQUAL Model: A Comparative Study of a Public and Private Sector Business School in Pakistan Context**

Sadia Butt

University of Management & Technology, Pakistan

Dr Naveed Yazdani

University of Management & Technology, Pakistan

**Abstract**

This research study compares and explores students' perceptions (P), expectations (E), and quality gaps (QG) regarding service quality (SQ) of a public and private business school of Pakistan using SERVQUAL. Other objectives also included investigating the impact of demographic factors upon the students' perceptions, institutional difference, and test the validity of SERVQUAL in Pakistan context. Using Random sampling technique, data was obtained from 190 respondents (students) from both B-schools through a structured instrument. A sample of 190 respondents including 100 respondents from Public B-school and 90 from private B-school was selected for this study. Cross Sectional Study design and structured SERVQUAL questionnaire was used to get feedback from respondents across five dimensions (regarding E and P) of SQ. Using Quantitative approach, data was analyzed through SPSS 23.0 by applying descriptive and inferential statistics. Results showed overall negative QG in public and private B-school with mean scores of -0.48 and -0.42 respectively and gap was also negative in 5 SERVQUAL dimensions. In public B-school, highest negative gap was reported in responsiveness (-0.63); followed by empathy (-0.62); reliability (-0.41); tangibles (-0.38); and assurance (-0.34). Similarly, in private B-school, highest gap was reported in empathy (-0.63); followed by responsiveness (-0.51); reliability (-0.50); assurance (-0.25); and tangibles (-0.23). Paired t-test results reported statistically significant difference between students' P and E of SQ dimensions in both B-schools. The study findings revealed that students' P are lower than their E resulting in QG and dissatisfaction. Hypothesis testing reported statistically no significant difference in terms of gender and qualification groups. Results also reported statistically significant institutional difference. As students' P and E scores in private B-school were higher than public B-school. It was also concluded that SERVQUAL can be applied for quality assessment, gap analysis, and identification of problem areas (critical quality dimensions) in B-schools of Pakistan as findings supported previous study results. Findings of this study can guide management/policymakers of Business schools to improve quality and allocate resources based upon identified problem areas/gaps in SQ dimensions.

**KeyWords:** Service Quality, Expectations, Perceptions, Quality Gap, SERVQUAL, Business School.

**Introduction**

Research on service quality (SQ) enormously gained fame among diverse industrial sectors (such as healthcare, marketing), and other operations of a business. Unquestionably, education institutes have paid huge attention to SQ as their aim is to improve procedures/ policies and services of education (Sibai et al., 2021). There is increased focus among HEIs on developing knowledge regarding SQ via student's satisfaction. Universities treat students as the key clients.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Hence, it is necessary to develop understanding of education being a service. As product/service quality has important part in all companies to remain competitive (Sukhragchaa et al., 2022). Provision of higher SQ and satisfying students is critical for its provider's institutions (Twum & Peprah, 2020; Kobero & Swallehe, 2022).

Higher education institutes (HEIs) are determined to execute diverse quality enhancement programs which include SQ to fortify their standards of research and teaching (Shafiq, et al., 2018). In present competitive context, understanding students' perceived quality and their level of satisfaction has become vital for attracting and retaining students (Ahuja & Purankar, 2018). Appraisal of quality by students in HEIs is being extensively accepted and increasingly imperative. Different scholars reported that higher quality education creates sustainability among students to accomplish their goals over a period of time (Allam, 2018).

Appraising satisfaction of student regarding educational quality is now considered as a central element of education process in numerous universities (Fuchs & Fangpong, 2021). University is responsible to ensure educational quality for employability of its alumni and developing capability to deal with challenges of international situations in effectual way (Darmawan et al., 2017). In modern era, students are treated as clients who interact with universities and pay fee with objective of acquiring knowledge and develop competences (Sultan & Wong, 2019). Evaluating and monitoring client's satisfaction and perceived SQ has become imperative for existence of public/private universities in this extreme market competition (Gupta & Kaushik, 2018). As pleased Students are more expected to remain associated with existing university. Furthermore, alumni will be more supportive and build favorable impression of their university (Mwiya et al., 2019).

With rising competition, Business Schools require a unique identity that is imperative for understanding their success as a function of industry requirement for qualified individuals. By catering industry requirement, B-schools will achieve growth (Ahuja & Purankar 2018). According to Publications by AACSB, higher fee, scarcity of hiring prospects and an extremely varying offered product mix by B-schools resulted in somewhat declining and stagnant tendency towards enrollments of students in Asian context in contrast to USA/UK (Kashif & Cheewakrakokbit, 2018). With the increasing focus on the quality practices in all sectors, applying SQ concepts to business education is also the demand of education sector. Due to increasing competition among B-schools, the students are exploring options internationally for business studies. B-schools therefore, need to implement quality based practices so that they perform well and well serve the students (Saeed & Ehsan, 2010).

Kashif and Cheewakrakokbit (2018) concluded that there exists dominant association of SQ dimensions (like assurance) with satisfaction of students in B-schools. Provision of quality service by a specific business School has impact on its standing and satisfaction level of the student. Research of SQ evaluation of B-schools is scant (Pandey & Sharma 2011). Universities generally and B-schools particularly in Pakistan may get advantage significantly by relating and improving their SQ in accordance with students' preferences and perceptions (Janjua & Aftab, 2016). SQ in HEIs impacts significantly on satisfaction of their students. Hence, HEIs must implement mechanisms to gather feedback from student and ensure to find out SQ dimensions vital for students. So that they may make required progression in related dimensions of SQ (Onditi & Wechuli, 2017).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

In context of unexpected expansion in HEIs figures in Pakistan and in B- schools as well, alarming increase of concerns for standards of educational quality from stakeholders, rising deficit of university funds, understanding SQ and greater value creation proposition in midst of aggressive competition has become a vital concern for HEIs (Javed, 2014). In Pakistan, SERVQUAL has been applied in few research studies as a tool to appraise SQ in education institutes (Shah et al., 2021). Precisely, only few research studies have explored quality of HEIs from perspective of the students (Allam, 2018). In present era, HEIs of Pakistan have strived to appraise their quality. Many researches indicated gaps with decline in satisfaction level of students (Hassan & Jafri, 2017; Khurshid et al., 2021; Tegowati et al., 2020; Hassan et al., 2022). Furthermore, only few comparative studies (Butt, 2020; Ahmed et al., 2016) have been conducted to appraise SQ of business schools in Pakistan. Appraising SQ would facilitate HEIs in monitoring students' requirements to satisfy them and remain competitive. It will facilitate them to be aware of institution's prevailing situation (Kobero & Swallehe, 2022). Research is missing in Pakistan for validating and measuring SQ of B-schools, exploring related attributes of positioning, and widening scope of SQ framework (Janjua and Aftab, 2016). As HEIs strive for improved SQ and competitive gains, the appraisal of their educational SQ is indispensable. It gives inspiration and provides feedback about successful implementation of plans, and their effectiveness (Fuchs & Fangpong, 2021).

Therefore, this comparative study focuses on appraising SQ delivered by a public and private sector B- school of Pakistan, and investigating students' E and P as B-school customers. Following objectives are considered for the current study.

To appraise service quality (SQ) and find out quality gaps (QG) in students' perceived and expected SQ of public and Private B-school in Pakistan context.

To examine difference in opinion in various student groups (gender, qualification) in public and private B-School.

Find out institutional difference in terms of students' perception of SQ.

To investigate applicability/effectiveness of SERVQUAL in Pakistan HEIs/ Business schools context.

## **Literature Review and Hypotheses Formulation**

### **Service Quality (SQ)**

Service quality (SQ) is the result of the consumer's comparison of expected service with perceived service" (Parasuraman et al., 1985). Research on SQ gained popularity in the early 1980s. Many researchers argued that SQ involved comparison of consumers' expectations with performance (Yousapronpaiboon, 2014). From a theoretical point of view, there is no universal definition of quality (Donlagic & Fazlic, 2015). Due to intangible nature of services, assessment of SQ was also difficult task for the academicians/practitioners. However, SQ was repeatedly studied in service marketing literature (Parasuraman et al., 1988). Evaluating SQ is more complicated than product quality. As, SQ is appraised on the basis of all the things linked with service, and not only final outcome (Ilyas, 2013). However, the distinctive nature of service being dissimilar from goods makes it difficult to evaluate. It is safe to state that it's almost impossible to be assessed objectively (Min & Khoon, 2013). Till now many models (such as





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 (SERVQUAL, SERVPERF) have been presented for appraising SQ in diverse service sectors.

### **Service Quality in Higher Education Institutions (HEIs)**

Higher education (HE) is recognized among the imperative subject matters of 21<sup>st</sup> century. This is on account of superior technology, competition, Globalization, and demands from stakeholders (Shafiq, et al., 2018). Indisputably, students are perceived as clients of HEIs. In current era, each client (student) demands SQ in education (Allam, 2018). HEIs can determine educational quality through the magnitude of needs and expectations of their students which are fulfilled. HE faces pressure regarding value addition in educational activities (Fuchs & Fangpong, 2021).

In the HE, SQ is recognized among the vital performance determinants. In this way, a positive association exists between perceived SQ and satisfaction of the student. It is critical for the institution to appraise required services which its customers highly value. It is necessary to build favourable image of the institute (Twum & Peprah, 2020; Kobero & Swallehe, 2022). HEIs across the globe have experienced the introduction of quality assurance processes. The increasing competition among HEIs to attract highly qualified students is forcing them to pay more attention to SQ issues (Green, 2014).

If students have favourable experience while studying, there are chances of affiliation with their current institute in future (Yusoff et al., 2015). Research on HE indicate that that there is a gap between the students' perceptions (P) and their expectations (E) from educational services, primarily in developing Nations (Nabilou & Zavareh, 2014). Literature suggested that there is rising pressure from stakeholder (students, employers, parents) for closing the gap which is widening between E and P of the institutions (Zainuddin et al., 2014). In education industry, students are their most significant clients and main recipients of service provision. Considering this fact, institutions should strive to enhance SQ to ensure their satisfaction (Hassan et al., 2022)

### **Quality Initiatives and Research in Pakistan HEIs/ B-Schools**

Total number of universities in Pakistan was twenty (20) till 1980. To tackle with the issue of accessibility of educational facilities for rising population, Government encouraged private sector to invest and enacted new laws. These reforms resulted in rapid growth of private institutions in Pakistan in the last decade of 20<sup>th</sup> century (Ahmed et al., 2016). During 1<sup>st</sup> decade of the new millennium, remarkable increase in HEIs in private sector of Pakistan has been noticed. HEC, Pakistan statistics highlight that in the year 2000 there were only 13 degree awarding institutes and 32 universities including 8 degree awarding institutes and 14 universities operating in the private sector. Due to the policies to promote HE and private sector investment in Pakistan, in the year 2009 to 2010, degree awarding institutes/universities figures changed to 90. Out of which, 17 degree awarding institutes and 42 universities belonged to private sector. According to September 2011 HEC statistics, private/ public sector universities and degree awarding institutions number raised to eighty four (84) and sixty two (62) respectively. This growth in a decade aroused demand for close monitoring and appraisal to deliver quality education (Ahmed & Ali, 2016). According to HEC 2014 statistics, there were 156 private/public sector HEIs in Pakistan offering BS/MS/ PhD programs (Afridi et al., 2016). According to



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Pakistan HEC recent statistics, out of two hundred and thirty three (233) public/private HEIs, 140 (60%) are public and remaining (40%) are private universities/HEIs with approximately 2.0 million student enrolment (UNESCO, 2021; Hassan et al., 2022). During the last one decade, HEC made radical progression to promote higher education and paid attention on educational quality in Pakistan. Many universities adopted principles of quality management (QM) to implement ISO as a 1<sup>ST</sup> initiative to excel quality (Ijaz et al., 2011).

HEC, Pakistan has started monitoring the institutions to implement TQM practices for appraising the quality of HE. HEIs are rated every year on the basis of these quality standards by HEC, Pakistan (Ahmed & Ali, 2016). NBEAC criterion for quality is largely founded on superior practices (like teaching, research) along with retaining and nurturing capability (Janjua and Aftab, 2016).

The concept of B-schools started from western nations and spread worldwide. This concept flourished in Pakistan and with escalating business opportunities resulted in increased demand for management graduates (Ilyas et al., 2013). In Pakistan, education sector is experiencing inconsistent standards, under investment and normal facilities as compared to peer economies due to unsuccessful policies and unwillingness of Government in management education. Moreover, outdated teaching practices, research facilities, copied curriculum, PhD faculty and weak or no link between academic circles and industry are reasons for outdated business education in Pakistan (Wasim & Zarif , 2012) . Implementing TQM practices at HEIs of Pakistan, particularly at B- schools, is quite a new concept and it is in its early stages (Ahmed & Ali, 2016).Key findings of various research studies on Pakistan B-schools are presented in table 1.



**Table 1:** Research Findings on Dimensions & Service Quality of Pakistan B-schools

Author (s) /Year	Key Findings
Kolachi & Wajidi (2008)	Only few B-schools offer quality education. Major weaknesses included research culture, teaching methodology and commitment of faculty.
Qureshi & Mahmood. (2008)	Only few B-schools from both sectors were not performing up to the desired standards and providing quality in limited context.
Malik et al. (2010)	Students showed satisfaction with quality dimensions, but they were not highly satisfied with infrastructure like computer labs.
Rauf et al. (2010)	Hiring of foreign/ qualified faculty, promoting research culture, faculty development, and curriculum revision in alignment with industry requirements were identified as key improvement areas in management education.
Ijaz et al. (2011)	Scholarship opportunities, reputation and low fees as compared to private B-schools were main reason of students' attraction and satisfaction in public B-schools of Pakistan.
Bashir et al. (2013)	Location and HEC ranking of B-school were identified as the most influencing external factors followed by fee structure, faculty and industry linkages.
Zeshan et al. (2014)	Students perceived low quality in B-schools as satisfaction level of students was low across SQ dimensions.
Butt (2020)	Findings showed gaps in all SQ dimensions in both public/private schools showing dissatisfaction of students.

### **SURVQUAL**

SERVQUAL by Parasuraman et al. (1988) was 1st scale/ model to appraise SQ. It is a significant model to identify gap (between expectation and perception of consumer) regarding delivered service. Original 10 dimensions of the instrument were later reduced to 5 (Parasuraman et al., 1988; Butt, 2021). The first four (4) gaps related to service provider, whereas gap (5) five was measure of SQ by calculating difference between consumer's perceptions (P) and expectation (E). Gap model is shown in Figure.1.

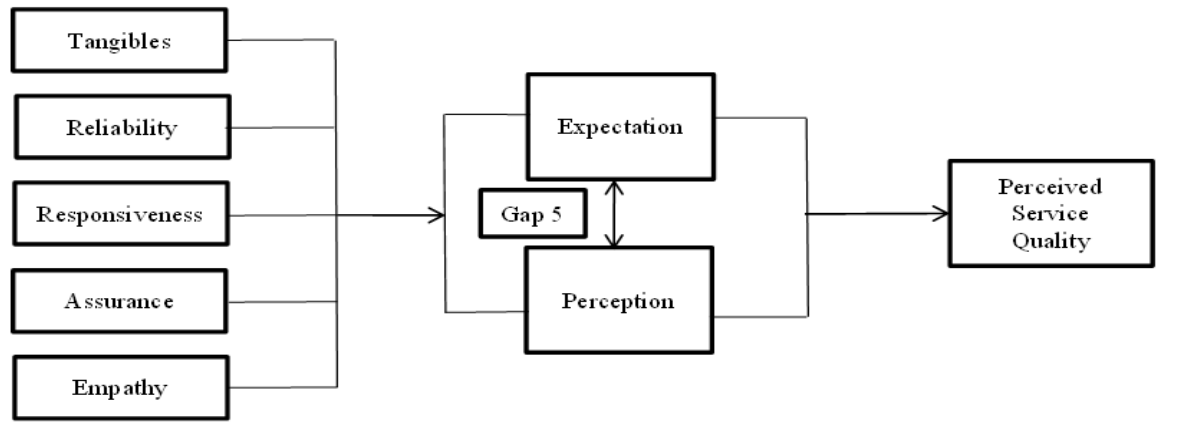
Perceived Service Quality (SQ) = Consumer's Perceptions (P) –Expectations (E)

SERVQUAL instrument/scale measures SQ across five (5) dimensions which are also called "RATER" dimensions. Nadiri et al. (2009) explained 5 dimensions as:

Tangibles: "Physical ambiances which are represented by objects/subjects."

Reliability: "Capability of service-provider to give dependable and precise services."

Responsiveness: "Willingness of the company to support its clients through provision of efficient



**Fig.1** SERVQUAL by Parasuraman et al. (1988)

**Application of SERVQUAL in HEIs/B-Schools for Identifying Quality GAP**

Application of SERVQUAL instrument helps HEIs to identify SQ dimensions where they do extremely well or need to improve (Abili et al., 2011). It is valuable for identification of the particular area where problem exists to deliver the service. Hence, Management/administration can focus on the same to get better results (Afridi et al., 2016). HEIs can utilize this tool to identify strategic areas of focus in order to improve their quality of service (Kanakana, 2014). It can be used in private HEIs for periodic screening, and as part of QMS system for quality improvement (van Schalkwyk & Steenkamp, 2014). Academia considers it to appraise SQ in the business school as well (Pandey & Sharma, 2011). Inconsistency between consumer’s P and E of the delivered service is known as gap (Mwongoso, 2015). Key findings of few research studies on gap analysis applying SERVQUAL in HEIs/B-schools are presented in this section.

Zhang and Vinitwatanakhun (2019) used SERVQUAL to examine student’s P and E about SQ in Chinese university. Datas was collected from 120 students. Results indicated significant difference between students’ P and E of SQ resulting in QG. Moosavi et al. (2017) conducted comparative study of Iranian educational SQ from students’ viewpoint. Authors concluded that students’ E scores were much higher as compared to current quality of educational services. Asefi et al. (2017) assessed student’s P and E gap of SQ using this scale in Iranian university. They reported an overall negative QG. Kashif and Cheewakrakokbit (2018) results revealed these people-focused dimensions as critical indicator of perceived SQ in Thai B-schools. Mbise (2015) investigated students’ perceptions (P) regarding SQ in Tanzanian B-schools Moreover, stability of students’ perceived SQ during the two time periods was reported with higher dimensional service gap at T1 compared to T2. Process Outcome received the lowest gap (-0.5) in Time T2 compared to T1. Process outcome contributed significantly in students’ assessment of service quality in Tanzanian B-schools. Mwongoso et al., (2015) research in B-schools of Tanzania using SERVQUAL showed NQG of (-1.61) .Lowest NQG was present in empathy (-1.52) and highest (-1.75) in tangibles. In t-test results, statistically significant difference was





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

reported between students' P and E. Rozsa (2013) study in B-schools of Slovakia showed significant NQG in tangibles (-0.93) and reliability (-0.86) and positive gaps in responsiveness (0.73) and empathy (0.44). The overall NQG was negative (-0.84). Table 2 presents results of study findings on gap analysis.

**Table 2:** Research Findings on Quality Gaps in HEIs using SERVQUAL

Authors	Country	Key Findings
Mohammadi & Mohammadi. (2014)	Iran	NQG in all dimensions, with highest in responsiveness (-1.83) and lowest in reliability (-1.33).
Zainuddin et al. (2014)	Malaysia	NQG in all dimensions, with highest in responsiveness (-1.67) and lowest in assurance (-1.31).
Chui et al. (2016)	Malaysia	NQG in all dimensions, with highest gap in empathy (-1.69) and lowest in tangibles (-0.26).
Donlagic & Fazlic (2015)	Bosnia & Herzegovina	NQG in all dimensions, with highest gap in empathy (-2.68) and lowest in reliability (-2.27).
Mukhopadhyay (2016)	India	NQG in all dimensions, with highest gap in tangibles (-1.67) and lowest in assurance (-1.29).

Following hypotheses are formulated based on extensive literature review:

**Ha:** Students' expectations (E) and perceptions (P) differ significantly regarding tangibles dimension of service quality (SQ) in both types of B-school.

**Hb:** Students' expectations (E) and perceptions (P) differ significantly regarding reliability dimension of service quality (SQ) in both types of B-school.

**Hc:** Students' expectations (E) and perceptions (P) differ significantly regarding responsiveness dimension of service quality (SQ) in both types of B-school.

**Hd:** Students' expectations (E) and perceptions (P) differ significantly regarding empathy dimension of service quality (SQ) in both types of B-school.

**He:** Students' expectations (E) and perceptions (P) differ significantly regarding assurance dimension of service quality (SQ) in both types of B-school.

## 2.6 Impact of Demographic Factors on Students' Perceptions of SQ

The facts from the earlier studies indicate that respondents (students) demographic variables can impact SQ perceptions (Mbiase, 2015). These factors (like age, gender) can influence SQ in different ways (Min & Khoon, 2013), and also impact satisfaction level of business students (Yusoff et al., 2015). Understanding their role may direct service providers/ marketers of HE to distinguish the services according to the nature of individual demographic groups (Min & Khoon, 2013). Table 3 presents overview of findings of various researchers.



**Table 3: Impact of Demographics on Students' Perception of SQ**

Author(s)/Year	Demographics Tested	Key Findings
Abili et al. (2011)	Gender, degree, seniority	No significant difference reported.
Min & Khoon (2013)	Gender, age, level of study, nationality	Significant difference reported in all factors except age group.
Rozsa (2013)	Gender, Region	No significant differences in gender groups.
Zeshan et al. (2014)	Gender, Sector	No significant difference reported.
Mbise (2015)	Age, gender, specialization, employment & marital status	No significant difference in all factors except specialization groups.
Mukhtar et al., (2015)	Gender	No significant difference on the basis of gender.
Yusoff et al. (2015)	Gender, semester grades, year, program of study	Significant difference reported in all factors.
Singh & Kumar (2016)	Gender, age, course of study, marks	Significant differences reported in all demographics except age groups.

Literature review reveals mixed findings regarding impact of demographic factors on students' E/P of SQ. To investigate impact of demographics following hypotheses were formulated:

**Hf:** When compared between gender groups of respondents in both types of B-school, students differ in their opinion regarding service quality (SQ) dimensions.

**Hg:** When compared between qualification groups of respondents in both types of B-school, students differ in their opinion regarding service quality (SQ) dimensions.

### **Institutional Difference in Terms of Service Quality**

Only few comparative studies on SQ of Pakistan HEIs/B-schools have been conducted. Qureshi and Mahmood (2008) indicated difference in mean scores of quality indicators showed that private B-schools were performing better than public sector. Khan and Ali (2015) study revealed negative QG in B-schools. Findings identified difference in SQ of both types of institutions in different areas. Mukhtar et al. (2015) study also reported difference of SQ in private and





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

government of Pakistan. As compared to private sector universities, the service quality of government universities was on lower side.

Ahmed et al. (2016) research findings showed institutional difference in satisfaction level of students in private B-schools was higher as compared to public B-schools. Hassan et al. (2022) conducted comparative (private/public) research study in Pakistani universities by obtaining data of 218 respondents. Findings revealed significant differences in SQ and in case of public institutions it was comparatively lower. Butt (2020) assessed SQ of B-schools by obtaining data of 265 students from B-schools. Findings revealed negative QG and significant difference in SQ of private and public B-schools. To investigate difference in SQ of public and private B-school following hypothesis is formulated:

**Hh:** Students' expectations (E) differ significantly from their perceptions (P) regarding SQ dimensions when compared between public and private institution (business school).

### **Methodology**

#### **Study Design and Sampling**

Current study adopts cross sectional and quantitative study design. Students' feedback was obtained from a private and public sector HEC recognized business school of Pakistan located in Lahore city. Random sampling was employed in current study. Study Sample comprised of 190 currently enrolled students from the B-schools.

#### **Instrument Design, Development and Measures**

In this study modified SERVQUAL instrument was developed around five (5) quality dimensions of tangibles (Tan), empathy (EMP), responsiveness (Res), assurance (Ass), and reliability (Rel). The items that captured each part were adopted from earlier researchers (Zhang & Vinitwatanakhun, 2019; Kashif & Cheewakrakokbit, 2018; Mukhopadhyay, 2016). Questionnaire comprised of two parts. First Part Contained information about demographic of respondents. While, Second part consisted of 22 matching statements (for recording students' P and E across 5 SQ dimensions. Items included matching statements for Tan (4), Emp (5), Res (4), Ass (5), and Rel (4) on a five (5) points Likert-scale.

#### **Data Collection and Analysis Techniques**

After pilot testing of research tool, a questionnaire was used and students were approached after seeking approval from faculty members during their classes to fill in survey. Respondents' data was coded and fed into statistical software SPSS 23.0. Basic features of the data were described applying techniques like frequency and tabular Analysis for presenting demographic profiles of respondents; Summary Statistics were used for calculating few values to summarize data, and mean scores used for calculating gap scores (using P and E mean scores). Paired t-test and ANOVA were applied to test study hypotheses.

#### **Data Analysis**

##### **Sample Characteristics**

Table 4 presents sample characteristics of respondents. Total sample of 190 respondents included 100 participants from public sector and 90 from private B-school. Moreover, sample included equal proportion (50%) of males and females. With regard to the qualification level of respondents, 53% were bachelor level students followed by master level students 47%. Most of the respondents (72%) were in age bracket of 21-25 years.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 4:** Sample Characteristics

Variables		Public B-School		Private B-School		Total	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Gender	Males	50	50%	45	50%	95	50%
	Females	50	50%	45	50%	95	50%
Qualification	Bachelor	49	49%	52	57.8%	101	53%
	Master	51	51%	38	42.2%	89	47%
Age (Years)	16-20	18	18%	6	6.7%	24	12%
	21-25	79	79%	58	64.4%	137	72%
	26-30	2	2%	26	28.9%	28	15%
	31-35	1	1%	-	-	1	1%
	> 35	-	-	-	-	-	-

### Reliability Statistics

Table No. 5 depicts scale reliability/internal consistency. Overall values for public and private B-school were (0.945 and 0.935) for expectations; and (0.907 and 0.877 respectively) for perceptions part of research instrument. Values for scales exceeded above .70 acceptable value indicating good construct reliability (Nunnally, 1978; Butt & Yazdani, 2021; Butt et al., 2022).

**Table 5:** Test of Scale Reliability

Variable	Items	Cronbach's Alpha			
		Expectation		Perception	
		Public	Private	Public	Private
Tangibles	4	0.791	0.801	0.750	0.738
Reliability	4	0.817	0.771	0.723	0.724
Responsiveness	4	0.766	0.854	0.767	0.743
Empathy	5	0.856	0.836	0.793	0.748
Assurance	5	0.831	0.834	0.721	0.760
Overall	22	0.945	0.935	0.907	0.877



**7TH CBIBM  
2022**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Service Quality Gap (QG) Analysis**

Table 6 presents service QG analysis calculated through the formula. Scholars (Parasuraman et al., 1988) determined SQ by deducting consumer’s P from E (Afridi, 2016) as: {Q (Quality) = P – E}. It indicates an NQG if P are lower than E.

**Students’ Perceptions (P) and Expectations (E) of SQ**

Results revealed that students’ P overall mean score was higher in private-B-school (3.90) as compared to public B-school (3.39). Mean scores in five SQ dimensions were also higher in private B-school as compared to public B-school. However, ranking of quality dimensions differed for both B-schools on the basis of mean scores. In Public B-school, assurance was highly ranked dimension (3.60). Similarly, in private B-school, assurance was highly ranked dimension (4.27). Mean values of P indicated that students’ satisfaction level in private B-school was comparatively higher.

Results also revealed that expectations € overall mean score was higher in private-B-school (4.32) as compared to public B-school (3.87). Mean scores in five SQ dimensions were also higher in private B-school as compared to public B-school. However, ranking of quality dimensions differed for both B-schools on the basis of mean scores. In Public B-school, reliability was highly ranked dimension (3.95). Similarly, in private B-school, assurance was highly ranked dimension (4.52).

Table 6 presents ranking of SERVQUAL dimensions based upon negative QG scores. It’s indicated from the table that overall Q.G score was negative for both B-schools. However, ranking of quality dimensions differed for both B-schools on the basis of Q.G scores. In public B-school, highest negative gap was reported in responsiveness (-0.63 and least in assurance (-0.34). Likewise, in private B-school, highest NQG was reported in empathy (-0.63) and least in tangibles (-0.23). Hence, results showed prevalence of NQG in both types of B-schools.

**Table 6:** Quality Gap Scores (P-E) and Ranking of SERVQUAL Dimensions

Dimensions	Public B- School				Private B- School			
	Mean Score		Q.Gx	Ranking	Mean Score		Q.Gy	Ranking
	Ex	Px	Px-Ex		Ey	Py	Py-Ey	
Tangibles	3.82	3.44	-0.38	4	4.31	4.08	-0.23	5
Reliability	3.95	3.54	-0.41	3	4.39	3.89	-0.50	3
Responsiveness	3.88	3.25	-0.63	1	4.25	3.74	-0.51	2
Empathy	3.76	3.14	-0.62	2	4.14	3.51	-0.63	1
Assurance	3.94	3.60	-0.34	5	4.52	4.27	-0.25	4
Overall	3.87	3.39	-0.48		4.32	3.90	-0.42	

\*Expectation, perception and quality gap are represented by E, P and QG respectively.

**Hypotheses Tests Results**

This section presents statistical test results which were applied for hypothesis testing.

**Paired t-Test for Hypotheses Ha to He**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Table 7 depicts that p-value was lower than (<0.05) in test results. It showed significant difference between students’ P and E regarding SQ dimensions. Hence, hypotheses Ha to He were supported.

**Table 7: Paired t-test for Students’ Expectations and Perceptions Differences**

Quality Dimensions	B-School	Mean± SD	t	P (Sig.)
Pair 1:Tangibles	Public	.380 ± 1.044	3.639	.000
	Private	.225 ± .864	2.472	.000
Pair 2:Reliability	Public	.410 ± .949	4.320	.000
	Private	.497 ± .791	5.963	.000
Pair 3: Responsiveness	Public	.625 ± 1.048	5.965	.000
	Private	.514 ± .854	5.708	.000
Pair 4: Empathy	Public	.628 ± 1.127	5.572	.000
	Private	.640 ± .850	7.141	.000
Pair 5:Assurance	Public	.340 ± .877	3.877	.000
	Private	.242 ± .601	3.825	.000

#### 4.5.2 Hf Test for Gender Groups Differences

Table 8 presents Hf test results applying ANOVA by gender groups. Results reported insignificant p-value >.05 in SQ dimensions (P and E) of both types of B-school. Hence, males and female respondents were indifferent in terms of their opinion about SQ in both types of B-schools. Hence, Hf was not supported.

**Table 8: ANOVA for Gender Group Differences**

Dimensions	B-School	Mean Difference		F		t		P Sig.*	
		E	P	E	P	E	P	E	P
Tangibles	Public	-.19	-.18	.08	.04	-	-1.07	.27	.29
	Private	.07	.02	.04	.33	.54	.16	.59	.87
Reliability	Public	-.04	-.24	.26	.12	-.26	-1.40	.79	.16
	Private	-.12	.03	.83	1.56	-.96	.21	.34	.84
Responsiveness	Public	-.11	-.19	.09	.25	-.73	-1.09	.47	.28
	Private	-.05	-.07	.07	.01	-.36	-.41	.72	.68
Empathy	Public	-.03	.02	.02	.19	-.18	.09	.85	.93
	Private	-.13	.02	1.28	1.08	-.97	.15	.33	.88
Assurance	Public	.01	-.19	1.08	.01	.07	-.	.94	.22
	Private	-.02	-.03	.128	3.60	-.19	-.22	.85	.83

#### Hg Test for Qualification Groups Differences

Table 9 presents Hg test results applying ANOVA by qualification groups. Test results reported



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

insignificant p-value  $>.05$  in SQ dimensions (P and E) of both types of B-school. Hence, MS and MS respondents were indifferent in terms of their opinion about SQ in both types of B-schools. Hence, Hg was not supported.

**Table 9:** ANOVA for Qualification Group Differences

Dimensions	B-School	Mean Difference		F		t		P Sig.*	
		E	P	E	P	E	P	E	P
Tangibles	Public	-.21	-.17	2.81	.07	-	-	.23	.31
	Private	-.09	.24	2.13	.86	1.22	1.02	.49	.09
Reliability	Public	-.05	.19	.37	1.06	-.33	1.06	.74	.29
	Private	.06	-.03	.03	5.36	.53	-.20	.59	.84
Responsiveness	Public	.01	.02	.85	2.86	.06	.14	.95	.89
	Private	.14	.13	.02	.40	.99	.78	.32	.44
Empathy	Public	.07	.12	.04	.48	.41	.70	.68	.48
	Private	.22	-.01	.18	.79	1.68	-.07	.09	.94
Assurance	Public	.09	-.11	.06	.25	.56	-.68	.58	.50
	Private	-.06	-.03	.38	.43	-.51	-.26	.61	.79

#### Hh Testing for Institutional Differences

Table 10 presents Hh t-test results by institution (public and private). Results reported significant p-value  $<.05$  in in SQ dimensions (P and E) of both types of B-school. Respondents' differed in terms of their opinion about SQ in both types of B-schools. Hence, Hh was supported.





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 10: ANOVA for Institutional Difference**

Dimensions	Public	Private	Mean Difference	t	P*
	Mean ±SD	Mean ±SD			
Tangibles -P	3.440 ± .844	4.083 ±.639	-.643	-5.872	.000
Tangibles –E	3.820 ±.854	4.308 ±.636	-.488	-4.431	.000
Reliability-P	3.537 ±.877	3.889 ±.755	-.351	-2.943	.004
Reliability-E	3.947 ±.848	4.386 ±.573	-.439	-4.128	.000
Responsiveness-P	3.252 ±.889	3.744 ±.762	-.492	-4.073	.000
Responsiveness-E	3.877 ±.784	4.258 ±.656	-.381	-3.610	.000
Empathy -P	3.136 ±.889	3.504 ±.689	-.368	-3.166	.002
Empathy -E	3.764 ±.854	4.144 ±.628	-.380	-3.464	.003
Assurance -P	3.598 ±.788	4.275 ±.586	-.677	-6.663	.000
Assurance -E	3.938 ±.802	4.518 ±.557	-.579	-5.728	.001
Perception (P)	3.393 ±.677	3.899 ±.501	-.506	-5.810	.000
Expectation (E)	3.869 ±.720	4.323 ±.504	-.454	-4.979	.000

\*significant at  $p < .05$

### Discussions and Conclusion

This comparative study was aimed at finding out QG in service provision by a public and Private B-school of Lahore, Pakistan from students' viewpoint using SERVQUAL. Study also examined difference of students' opinion on the basis of demographics (qualification, gender) and institutional difference regarding SQ.

Findings showed that students' expectations (E) exceeded their perceptions (P) in all SQ dimensions in both type of B-schools resulting in negative QG. Hence, students' E were not fully met resulting in dissatisfaction with delivered services of their respective institution. In public B-





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

school, overall Q.G score was negative (-0.48) showing students' E exceeded their P resulting in dissatisfaction. Highest negative QG was reported in responsiveness (-0.63); and lowest in assurance (-0.34). Hence, these were identified as highest and lowest critical dimensions based on gap scores respectively. In private B-school, overall quality gap score was negative (-0.42) showing students' E exceeded their P and resulted in dissatisfaction. Highest negative QG was reported in empathy dimension (-0.63); and lowest in tangibles (-0.23). Hence, these were identified as critical dimensions.

In Private B-School, students' E was higher as compared to public B-school with overall mean score of (4.32 and 3.87) respectively. Based upon overall P mean scores, students' satisfaction level in private B-school was higher (3.90) as compared to public B-school (3.39). Moreover; P mean scores in SQ dimensions were also higher in private B-school as compared to public B-school. These results indicated that quality improvement is required in both B-schools. Moreover, students' satisfaction level in private B-school was higher as compared to public B-school.

Paired t-test results indicated that differences were significant between students' P and E regarding SQ dimensions in both type of B-schools. Statistically no significant differences reported with regard to gender and qualification groups in both B-schools. Statistically significant difference reported in students' P and E regarding SQ dimensions when compared between public and private B-schools. Students' P and E levels were comparatively lower in public sector institution (B-school). In addition, results revealed that SERVQUAL is useful and reliable in Pakistan context as it identifies critical dimensions with negative QG and the exact problem area where quality improvement is needed.

Gap analysis revealed that students' P were lower than E which resulted in negative QG in service provision by both type of B-schools. Moreover, differences were statistically significant between perceived and expected SQ dimensions in both B-schools. These results are aligned with the findings of previous researchers (Butt, 2020; Mukhopadhyay, 2016; Chui et al., 2016; Mwangoso et al., 2015; Mohammadi & Mohammadi, 2014; Rajabi & Rajabi, 2014; Zainuddin et al., 2014; Bahadori et al., 2013; Dursun et al., 2013).

Statistically no significant differences reported with regard to qualification groups. While, insignificant differences also reported in opinion of gender groups regarding SQ in both B-schools. The findings are consistent with earlier researchers (Rozsa, 2013; Mbise, 2015; Mukhtar et al., 2015; Zeshan et al., 2014).

Statistically significant institutional difference reported in students' P and E regarding SQ dimensions when compared between public and private B-schools. Students' P and E mean scores were comparatively lower in public sector institution (B-school). Findings are consistent with earlier researchers (Butt, 2020; Ahmed et al., 2016) in B-schools and Hassan et al. (2022) in HEIs of Pakistan. Overall, study findings are supportive from earlier researchers both from Asian and Western Context. Hence, findings supported their stance that SERVQUAL is effective tool to appraise SQ of educational institutes in Pakistan context as well.

### **Recommendations for Management and Policy Makers**

For Provision of quality services, following suggestions are being given to management of B-schools: Firstly, Feedback should be taken from students regularly and this exercise should be



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

conducted twice a year to compare trends of quality gaps during two time periods. Furthermore, it is recommended to take feedback from fresh graduates as their assessment will give an accurate depiction of the B-schools performance. Secondly, management should ensure a feedback system to monitor performance improvement periodically. They should incorporate students' feedback and valuable suggestions about weak areas and make appropriate revisions in quality policy to enhance their satisfaction. Third, Staff trainings are most effective tool to inoculate quality culture and enable them to enhance their skills and understanding towards students' satisfaction. It's recommended that management should organize in-house training workshops on customer service, communication skills, and complaint handling. Effective communication is needed at all levels as most of quality problems are caused by poor communications. Finally, based on the results of this assessment, a long term development plan should also be developed considering strategic goals of the B-schools.

#### **Future Directions and Limitations**

Following suggestions are being given to researchers based upon study findings. This study was conducted using cross sectional study design. In Future, research should also be conducted using longitudinal design. This research has been conducted from viewpoint of students. Future studies can be conducted considering perspective of faculty and other stakeholders to know their perceptions regarding service quality. In addition, due to resource and time constraints, viewpoint of only management students has been taken. Future researchers can also conduct similar studies applying different models/scales (like ServPerf or HedPerv) to explore SQ of educational service provision from perspective of students. In this comparative study, sample is taken from two business schools of Lahore, Pakistan due to resource and time constraints. Future studies may be conducted by including perception of students from business schools of other cities and provinces in Pakistan.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### References

Abili, K., Thani, F. N., Mokhtarian, F., & Rashidi, M. M. (2011). Assessing quality gap of university services. *Asian Journal on quality*, 12(2), 167-175.

Afridi, S. A., Khattak, A., & Khan, A. (2016). Measurement of service quality gap in the selected private universities/institutes of Peshawar using SERVQUAL model. *City University Research Journal*, 6(1), 61-69.

Ahmed, N., Lulin, Z., & Bajwa, A. A. (2016). Service Quality at Business Schools and its Correlation with Students' Satisfaction and Entrepreneurial Self-Efficacy. *The Online Journal of Quality in Higher Education-January*, 3(1), 66-78.

Ahmed, R., & Ali, S. I. (2016). Implementing TQM practices in Pakistani higher education institutions. *Pakistan Journal of Engineering, Technology & Science*, 2(1), 1-26.

Ahuja, V., & Purankar, S. (2018). Quality Business School education and the expectations of the corporate-A research agenda. *Procedia Computer Science*, 139, 561-569.

Ahuja, V., & Purankar, S. (2018). Quality Business School education and the expectations of the corporate-A research agenda. *Procedia Computer Science*, 139, 561-569.

Allam, Z. (2018). Students' perception of quality in higher education: An empirical investigation. *Management Science Letters*, 8(5), 437-444.

Asefi, F., Delaram, M., & Deris, F. (2017). Gap between the Expectations and Perceptions of Students regarding the Educational Services Offered in a School of Nursing and Midwifery. *Journal of clinical and diagnostic research: JCDR*, 11(4), JC01.

Bahadori, M., Mousavi, S. M., Sadeghifar, J., & Haghi, M. (2013). Reliability and performance of SEVQUAL survey in evaluating quality of medical education services. *International Journal of Hospital Research*, 2(1), 39-44.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Bashir, R., Hassan, A., Pasha, M.A., & Ahmed, S. (2013). Analysis of Internal and External Factors Affecting Choice of Business Schools by Students. *Journal of Management and Social Sciences*, 9(2), 31-41.

Butt, S., Mubeen, I., & Ahmed, A. (2022). Corporate Social Responsibility and Firm Financial Performance: Moderating role of Ethical Leadership and Social Capital. *JISR management and social sciences & economics*, 20(1), 165-186.

Butt, S. (2021). Impact of E-Banking Service Quality on Customers' Behaviour Intentions Mediating Role of Trust. *GMJACS*, 11(2), 21-21.

Butt, S., & Yazdani, N. (2021). Influence of workplace incivility on counterproductive work behaviour: Mediating role of emotional exhaustion, organizational cynicism and the moderating role of psychological capital. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 15(2), 378-404.

Butt, S. (2020). Service quality assessment and student satisfaction in business schools: Mediating role of perceived. *MOJEM: Malaysian Online Journal of Educational Management*, 9 (1), 58-76.

Chui, T. B., & bin Ahmad, M. S. (2016). Evaluation of service quality of private higher education using service improvement matrix. *Procedia-Social and Behavioral Sciences*, 224, 132-140.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.

Darmawan, H., Purba, H., Rezeki, R., Hidayat, N., Siregar, A., Retna, F., & Aisyah, A. (2017). Product development strategy with quality function deployment approach: A case study in automotive battery. *Management science letters*, 7(12), 601-610.

Đonlagić, S., & Fazlić, S. (2015). Quality assessment in higher education using the SERVQUALQ model. *Management: journal of contemporary management issues*, 20(1), 39-57.

Dursun, T., Oskaybaş, K., & Gökmen, C. (2013). The quality of service of the distance education. *Procedia-Social and Behavioral Sciences*, 103, 1133-1151.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Fuchs, K., & Fangpong, K. (2021). Using the SERVQUAL framework to examine the service quality in higher education in Thailand. *Education Quarterly Reviews*, 4(2), 363-370.

Green, P. (2014). Measuring service quality in higher education: A South African case study. *Journal of International Education Research (JIER)*, 10(2), 131-142.

Gupta, P., & Kaushik, N. (2018). Dimensions of service quality in higher education – Critical review (students' perspective). *International Journal of Educational Management*, 32(4), 580–605.

Hassan, N., Zaidi, S. S. Z., & Jafri, M. (2022). Students' perceptions of service quality. A comparative study of public and private sector universities in Pakistan. *KASBIT Business Journal*, 15(1), 35-56.

Hassan, N., & Jafri, M. H. (2017). Students' perception of relative importance of the five SERVQUAL and SERVPERF dimensions in educational institutions: A selected study of private universities in Sind. *GMJACS*, 7(2), 35–49.

Janjua, Q. R., & Aftab, F. (2016). Service Quality-Customer Loyalty Chain in Business Schools: A Multivariate Analysis. *Global Management Journal for Academic & Corporate Studies*, 6(2), 128-142.

Javed, S. (2014). Excellence in higher education: A catalyst for transformative change in Pakistan. *QS Showcase*.

Ijaz, A., Irfan, S. M., Shahbaz, S., Awan, M., & Sabir, M. (2011). An empirical model of student satisfaction: Case of Pakistani public sector business schools. *Journal of quality and Technology Management*, 7(2), 91-114.

Ilyas, A., Nasir, H., Hussain, F., Malik, M. R., Munir, S., & Sarwar, Z. (2013). Evaluating business schools service quality using SERVQUAL model. *Journal of Basic and Applied Scientific Research*, 3(5), 710-716.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Kanakana, M. G. (2014). Assessing service quality in higher education using the SERVQUAL tool. In *International Conference on Industrial Engineering and Operations Management* (Vol. 1, No. 969, pp. 68-74).

Kashif, M., & Cheewakrakokbit, P. (2018). Perceived service quality-loyalty path: A PAKSERV based investigation of international students enrolled in business schools in Thailand. *Journal of Marketing for Higher Education*, 28(1), 51-65.

Khan, M., & Ali, A. (2015). Quality of Education in Higher Educational Institutions: a Comparative Study of Perceptions and Expectations of Business Students. *Journal of Quality and Technology Management*, 11(2), 137-162.

Khurshid, N., Khurshid, J., Zaheer, S., Asad, S., & Mehmood, S. (2021). Study on service quality and student satisfaction : the competitive dimension of the physical infrastructure of Pakistani universities. *Elementary Education Online*, 20(1), 2159–2169.

Kobero, W., & Swallehe, O. (2022). The Effects of Service Quality on Customer Satisfaction in Higher Learning Institutions in Tanzania. *Open Journal of Business and Management*, 10(3), 1373-1391.

Kolachi, N. A., & Wajidi, A. Z. (2008). Business Education in Pakistan: Identifying weaknesses and suggesting improvements. *East West Journal of Economics and Business*, 11(1-2), 154-178.

Malik, M. E., Danish, R. Q., & Usman, A. (2010). The impact of service quality on students' satisfaction in higher education institutes of Punjab. *Journal of management research*, 2(2), 1-11.

Mbise, E. R. (2015). Students' perceived service quality of business schools in Tanzania: a longitudinal study, *Quality Issues and Insights in the 21<sup>st</sup> Century*, 4(1), 28-44.

Min, S., & Khoon, C. (2013). Demographic Factors in the Evaluation of Service Quality in Higher Education. International Students' Perspective. *International Review of Management and Business Research*, 2(4), 994-1010.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Moosavi, A., Mohseni, M., Ziaifar, H., Azami-Aghdash, S., Manshadi, M. G., & Rezapour, A.

(2017). The quality of educational services from students' viewpoint in Iran: A systematic review and meta-analysis. *Iranian journal of public health*, 46(4), 447.

Mohammadi, A., & Mohammadi, J. (2014). Educational Service Quality in Zanjan University of Medical Sciences from Students' Point of View. *World Journal of Education*, 4(5), 86-93.

Mukhopadhyay, D. K. (2016). Students' perception of quality of medical education in a medical college in west Bengal, India. *Indian journal of public health*, 60(1), 4.

Mukhtar, U., Anwar, S., Ahmed, U., & Baloch, M. A. (2015). Factors effecting the service quality of public and private sector universities comparatively: an empirical investigation. *Researchers World*, 6(3), 132-142.

Mwongoso, A. J., Kazungu, I., & Kiwia, R. H. (2015). Measuring Service Quality Gap in Higher Education Using SERVQUAL Model at Moshi University College of Cooperative and Business Studies (MUCCoBS). Implications for Improvement. *International Journal of Economics, Commerce and Management*, 3(6), 298-317.

Mwiya, B., Siachinji, B., Justice Bwalya, J., Sikombe, S., Moffat Chawala, M., Hillary Chanda, H., Maidah Kayekesi, M., Eledy Sakala, E., Alexinah Muyenga, A. and Kaulungombe, B. (2019). Are there study mode differences in perceptions of university education service quality? Evidence from Zambia. *Cogent Business & Management*, 6: 1579414. <https://doi.org/10.1080/23311975.2019.1579414>

Nabilou, B., & Khorasani-Zavareh, D. (2014). The bridge between real and ideal: students' perception on quality gap in reality and their educational expectations. *Iranian Red Crescent Medical Journal*, 16(9).

Nadiri, H., Kandampully, J., & Hussain, K. (2009). Students' perceptions of service quality in higher education. *Total Quality Management*, 20(5), 523-535.

Nunnally, J. C. (1978). *Psychometric Theory* 2nd edition (New York: McGraw).

Onditi, E. O., & Wechuli, T. W. (2017). Service quality and student satisfaction in higher education institutions: A review of literature. *International journal of scientific and research publications*, 7(7), 328-335.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Pandey, N., & Sharma, M. (2011). Whither service quality in Indian B-Schools: an analytical approach. *International Journal of Indian Culture and Business Management*, 4(1), 48-72.

Parasuraman, A., Zeithaml, V. A., & Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *1988*, 64(1), 12-40.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of marketing*, 49(4), 41-50.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of marketing*, 49(4), 41-50.

Qureshi, A. A., & Mahmood, U. (2008). Impact of quality of service delivery in business education. In *11th QMOD Conference. Quality Management and Organizational Development Attaining Sustainability from Organizational Excellence to Sustainable Excellence; 20-22 August; 2008 in Helsingborg; Sweden* (No. 033, pp. 117-125). Linköping University Electronic Press.

Rajabi, M., & Rajabi, A. A. (2014). Educational service quality assessment from a student point of view according to the SERVQUAL model [Educational service quality assessment from a student point of view according to the SERVQUAL model]. *Int J Sport Stud*, 4(2), 146-50.

Rauf, A., Kalim, R., & Siddiqi, A.F. (2010). Gaps in Management Education: A Case Study of University of Management and Technology. *US-China Education Review*, 7(11), 12-26.

Rózsa, Z. (2013). Assessment of Perceived Quality of SEMPA Educational Services. In *The 7th International Days of Statistics and Economics: Conference Proceedings* (pp. 19-21).

Saeed, M. K., & Ehsan, U. (2010). Exploring the most important factors while branding the business schools. *IBT Journal of Business Studies (JBS)*, 6(1), 36-43.

Shah, Z. A., Ali, S. B., Burney, S., & Azhar, K. A. (2021). Student-Perceived Service Quality in Management Science MS, PhD Programs of Tier 1 Business Schools in Karachi. *Multicultural Education*, 7(6), 693-701.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Shafiq, M., Lasrado, F., & Islam, A. (2018). Service quality scale development for higher education institutions: the Asian context. *Journal of Quality and Technology Management*, 15(1), 37-55.

Sibai, M. T., Bay Jr, B., & Dela Rosa, R. (2021). Service Quality and Student Satisfaction Using ServQual Model: A Study of a Private Medical College in Saudi Arabia. *International Education Studies*, 14(6), 51-58.

Singh, G., & Kumar, M. (2016). Analyzing Students' Perception and Attitude towards Service Quality Delivery in Higher Educational Institutions of Punjab. *Global Business & Management Research*, 8(1), 18-33.

Sukhragchaa, A., Tuvshintur, L., & Sed, B. (2022). Exploring Drivers of Service Quality in Higher Education: Periods in the Pandemic in Mongolia. *Journal of Positive School Psychology*, 10300-10310.

Sultan, P., & Wong, H. Y. (2019). How service quality affects university brand performance, university brand image and behavioural intention: The mediating effects of satisfaction and trust and moderating roles of gender and study mode. *Journal of Brand Management*, 26(3), 332-347.

Tegowati, T., Palupi, D., & Ramadhani, Y. C. (2020). Analysis of Educational quality based on quality, Servqual and retention of students. *Journal of Economics and Management Sciences*, 3(2), 11-20.

Twum, F. O., & Peprah, W. K. (2020). The impact of service quality on students' satisfaction. *International Journal of Academic Research in Business and Social Sciences*, 10(10), 169-181.

UNESCO. (2021). UIS Statistics. Sustainable development goals. <http://data.uis.unesco.org/>

Van Schalkwyk, R. D., & Steenkamp, R. J. (2014). The exploration of service quality and its measurement for private higher education institutions. *Southern African Business Review*, 18(2), 83-107.

Waseem, S. N., & Zarif, T. (2012). Factors affecting students' choice for degree in business administration. *Journal of management and social sciences*, 8(1), 40-47.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Yousapronpaiboon, K. (2014). SERVQUAL: Measuring higher education service quality in Thailand. *Procedia-Social and Behavioral Sciences*, 116, 1088-1095.

Yusoff, M., McLeay, F., & Woodruffe-Burton, H. (2015). Dimensions driving business student satisfaction in higher education. *Quality Assurance in Education*, 23(1), 86 -104.

Zainuddin, S., hairolne zam Kahmis, M., Muhamad, A., & Mamat, N. (2014). Perception and expectation of students towards the service quality: Perspective in Malaysian Research University. *Malaysian online journal of educational management*, 2(2), 73-91.

Zeshan, A., Afridi, T., & Khan, S.M. (2014). Assessing Service Quality in Business Schools: Implications for Improvement. *International Journal of Research in Applied, Natural and Social Sciences (IMPACT: IJRANSS)*, 2(8), 33-42.

Zhang, Z., & Vinitwatanakhun, W. (2019). A Comparative Study of Students' Expected Andactual Perception Towards Services Quality at Jilin Huaqiao University of Foreign Languages, China. *Scholar: Human Sciences*, 11(1), 61-69



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **What Makes People Actually Adopt the Mobile Payment Services in Pakistan?**

Anjum Ilyas Siddiqui

Virtual University of Pakistan

Amna Mumtaz

Virtual University of Pakistan

Muhammad Ashfaq

Virtual University of Pakistan

#### **Abstract**

Mobile phones are not only used as a communication gadget in these days but they are also used to make payments. It is necessary for telecommunication companies and banks to understand the factors which consumer consider while adopting mobile payment services. Hypotheses were developed to understand and analyze the factors effecting the adaptation of Mobile payments in Pakistan. The questionnaires were distributed using convenience sampling where the response rate from the participants was 93%. The study results using Smart-PLS concluded that perceived ease of use, mobile payment relative advantage, trust and security, cost and perceived usefulness have significant effect on the customers' behavior of mobile payments. The study could not find mediating role of perceived usefulness in the behavioral intention of mobile payments adaptation. Furthermore; security was partially mediating the relationship between cost and behavioral intention of adopting the mobile payment service. Relationship between compatibility and mobile payment service adoption was found as highly insignificant .

**Keywords:** Structural Equation Modeling, TAM, Behavioral Intention, Mobile Payment

#### **Introduction**

Mobile phones have changed the telephony over the last few decades. Today, mobile phones are not only fulfilling the need of telephony but also providing significant services like mobile payments (m-payments) to mobile users. Today, millions of Pakistani have access to internet which is not only playing significant role in time saving while making transactions through m-payment but also playing indispensable role to increase volume of business. Stakeholders of mobile payments are cellular mobile operators and their clients and financial institutions including banks. Information technology is playing important role in development of banking sector. After the revolution in the information and communication technologies in Pakistan, E-banking facilities have already been provided by the consumer banking from the last two decades (Salehi & Alipour, 2010). Now a days, Mobile payments has been widely used as an alternate for the micro-payments in shopping mall, restaurants or even payment of utility bills by the mobile users. Mobile payment system is working in collaboration of mobile cellular companies and banks. M-payment system is paper less because SMS is sent to both sender and receiver upon sending/receiving money. M-payment service has many potential benefits than what is currently offering to customer but the adoption of m-payment system is very slow in Pakistan (Bachfischer et al., 2004, Noreen et al., 2021). So it is necessary to identify the behavioral factors which are considered by customers while adopting m-payment service. Many factors contribute to the success or failure of M- payment service systems like use of information technology in business





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

(Bachfischer et al., 2004). Mobile Payment system is a relatively new technology in Pakistan, therefore; the mobile users in Pakistan have different perceptions about adoption. The main objective of the study is to determine the reasons for accepting mobile payments from the consumer's point of view and to identify factors that may affect their intention to use the service. M-payment service system is getting popularity worldwide; its transactions are increasing but financial institutions and mobile companies are still facing problem to attract customers for mobile payment services in Pakistan. So it is a dire need to identify “What Makes People Actually Adopt the Mobile Payment Services in Pakistan?”

### **Literature review**

Detailed review of previous studies in this area has been discussed in this part. Countless transactions at personal and business are being conducted through mobile phones. Instant access and mobility are important features for such a massive use of mobile phones (Leung & Wei, 2000). Demand for money transfer services is also increased due to urbanization from villages to cities (Tobbin & Kuwornu, 2011).

The mobile money is not well-defined in the literature (Tobbin & Kuwornu, 2011). However, mobile payments (M-Payment) is defined as “use of mobile device for the financial transaction in which funds are transferred from sender to receiver directly, or through an intermediary, or without an intermediary (Mallat, 2007)”.

The comprehensive review of the literature is done by Dahlberget et al., (2008) where they have concluded that technology is one of the most important elements in mobile payments. The author also tried to predict the consumer intention to use mobile payments. For this purpose, the author had used TAM-model to explore the critical factors that impact the behavioral intention of Pakistani customers for the use of mobile phones as payment devices through mobile payment services.

The study was conducted by Mallat (2007) in the context of Finland to find out the important factors that affect the adoption of mobile payments. The findings of the study revealed that mobile payments provide the advantages to the consumers especially when the payments are at the micro level (like 10-100 euros). Sleiman et al., (2021) also used TAM to explore the adoption of mobile payments in China.

Liu et al., (2009) have used the TAM model to examine the critical factors that affect the usage of learning online. The author added additional variables in the TAM model like user interface design, previous online learning experience and perceived interaction to study the related phenomenon. SEM was used to analyse the data and results revealed that online course design positively affects the PU, PEU and behavioral intention.

A study was conducted by Adebisi et al., (2013) in the context of Nigeria regarding the adoption of mobile payments using DIT (Diffusion of Innovation Theory) and TAM. The dependent variable of the study was behavioral intention to use and the independent variables include compatibility, perceived usefulness (PU), complexity, perceived ease of use (PEU), cost, trust and security and relative advantages. The findings revealed that perceived ease of use is significantly affected by PU of mobile payments and compatibility has an impact on PEU and PU, while trust and security, cost and complexity are also significant in the adoption of mobile payments in Nigeria.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The study conducted by Pagani (2004) explores the factors regarding the adoption of third generation mobile multimedia services in Italy. The study is exploratory and covers the twenty-four focus groups and six markets of Italy. The author concluded that PEU and PU are the most crucial factors for adoption of mobile multimedia services.

Dahlberg et al., (2003) have examined the efficiency of the TAM model in explaining the acceptance of mobile payments by the users. The results revealed that the TAM model is useful at explaining the customers' adoption of mobile payments.

### **Independent variables**

#### **Perceived Usefulness (PU)**

Perceived usefulness (PU) is used as an independent variable in this study to predict the behavioral intention. Perceived usefulness can be explained as an advantageous factor that helps a certain person to fulfil his needs in a better way as compared to others. PU has been defined by Davis (1989) as “the degree to which a person believes that using a particular system would enhance his or her job performance”. To and Trinh (2021) stated that perceived usefulness has a significant positive impact on behavioral intention to use M-wallets. Sleiman et al., (2021) proved that perceived usefulness influences the behavioral intention toward actual usage.

#### **Perceived Ease of Use (PEU)**

Davis (1989) defined PEU as “the degree to which a person believes that using a particular system would be free of effort”. PEU is important in the sense that it shows that how does the customer perceives a systems' easiness of use (Tobbin & Kuwornu, 2011). To and Trinh (2021) concluded that PEU affects BI (Behavioral Intention) to use mobile wallets in vietnam.

#### **Compatibility (Co)**

From prospective users' point of view, it is necessary to confirm that M-payment service system should be consistent with his basic needs. So compatibility refers to the degree to which an invention is believed to be consistent with the needs, belief and prior experience of potential users. Hardgrave et al., (2003) concluded that compatibility affects the PEU, PU and BI.

#### **Relative Advantage (RA)**

An innovation is believed to be relatively advantageous to use if it is considered by the users comparatively a better option based on some features including financial benefits, satisfaction, etc. (Robinson, 2009). Moore and Benbasat, (1991), Plouffe et al., (2001), Tan and Teo, (2000) and Taylor and Todd, (1995) asserted that the relative advantage of mobile payments have significant impact on the customer intention to use of mobile payment system.

#### **Trust and Security (TS)**

According to Tobbin and Kuwornu (2011), trust is “a measure of consumer's level of assurance that the service will be provided with minimum possible hindrance”. Further, “Consumer's belief about the potential uncertain negative outcomes from the mobile money transaction” (Tobbin & Kuwornu, 2011) is known as perceived risk. Studies by To and Trinh (2021), Kim (2010) and Adebisi et al., (2013), concluded that trust and security plays an important role in the mobile payment usage intentions.

#### **Cost of Service (Cost)**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Heijden (2002), Adebiyi et al., (2013) and Mallat (2007) suggested that Cost is one of the important factors to adopt a mobile payment system. Mallat (2007) suggested that if the cost of doing a transaction is to be charged by the customers, then it affects the customers' adoption.

### **Dependent variable- Behavioral intention**

A number of researchers have used Behavioral intention (BI) as a dependent variable including Chen (2007), Mailizar (2021), To and Trinh (2021), Adebiyi et al., (2013) and Cheng (2011). These studies were focused to study the customers' behavior so that the products and services can be designed in a way which are more adaptable and easy to use by the users.

Following hypotheses have been developed on the basis of literature review.

**H<sub>1</sub>:** Behavioral Intention to use Mobile payments is significantly affected by Perceived Usefulness (PU).

**H<sub>2</sub>:** Behavioral Intention to use Mobile payments is significantly affected by Perceived Ease of Use (PEU).

**H<sub>3</sub>:** Perceived Usefulness (PU) of mobile payments is significantly affected by Perceived Ease of Use (PEU).

**H<sub>4</sub>:** Behavioral Intention (BI) is significantly affected by the Compatibility (Co)

**H<sub>5</sub>:** Behavioral Intention (BI) is significantly affected by the Relative advantage (RA)

**H<sub>6</sub>:** Trust and Security (TS) has significant impact on mobile payment's Perceived usefulness (PU).

**H<sub>7</sub>:** There is a significant impact of cost on Behavioral intention (BI) of mobile payments.

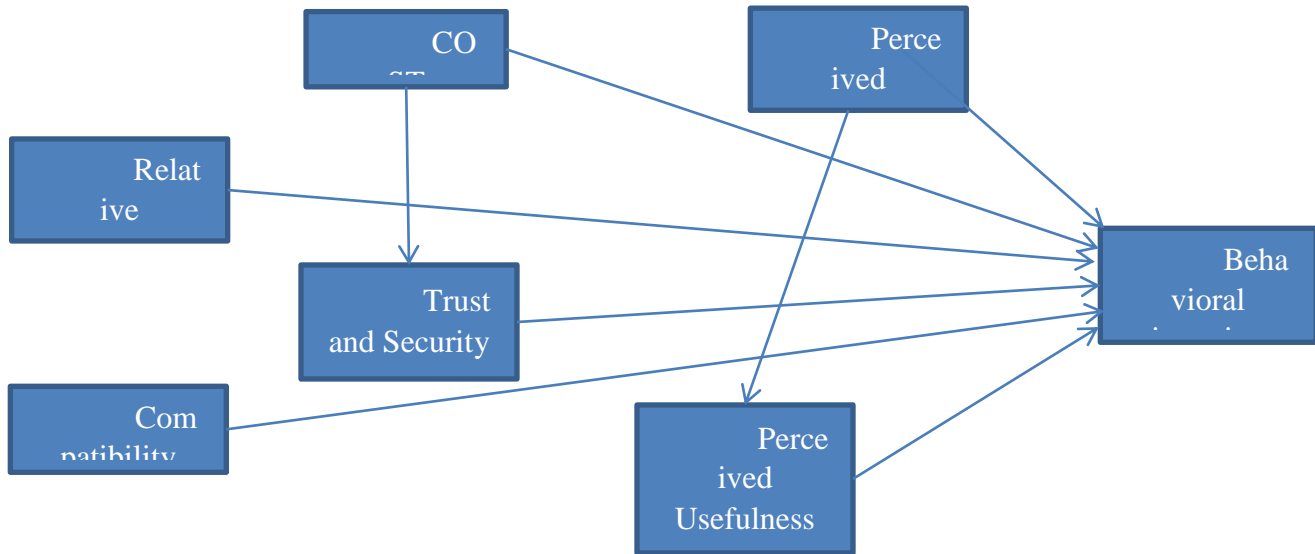
**H<sub>8</sub>:** Cost has significant impact on Behavioral intention (BI) with mediating effect of Trust and Security (TS).

### **Theoretical Framework**

Following theoretical framework has been formulated to predict behavioral intention through modified TAM model on the basis of available literature.

**Figure 1**

TAM Model



**Methodology**

**Sample and Procedure**

Purpose of the study is to identify the factors which play important role for adoption of mobile payment service. Population of the study contains users and non-users of mobile payment services. According to Hoyle (1995), it was concluded that sample of 100-200 is sufficient for path analysis modeling. Sample size was 250 because previous studies on this topic used sample of two hundred and fifty or less than two hundred (Adebiyi et al., 2013; Amin, 2008; Davis, 1989; Yan et al., 2009). Furthermore; this study is limited to main cities of Pakistan i.e Islamabad, Lahore and Karachi. Reason to select these cities is that money transfer service is usually used from big cities to countrywide (Tobbin & Kuwornu, 2011). Data was collected through an adaptive questionnaire (Adebiyi et al., 2013) for the purpose of analysis.

**Instrumentation**

Instrument used in this study is based on literature review. The instrument consists of two sections. Section A provides demographic attributes of respondents like age, gender etc. Section B is based on factors indicating consumer intention to use mobile payment service. This section is further divided into different constructs having 23 items. Further, for hypothesis testing of the structural model SMART PLS 3.0 is used which is considered a complete Structural Equation Modeling tool. Christian Ringle and his team developed this tool at the University of Hamburg in Germany (Hair,2010). The five-point Likert scale is used in questionnaire. Items of Behavioral



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Intention (BI), perceived usefulness (PU), Compatibility (Co), perceived usefulness (PU), Trust and security (TS), and Cost were adapted from Adebisi et al., 2013.

## Results

### Reliability and Validity Analysis

#### Cronbach's Alpha

Reliability and Validity Analysis respectively is given in Table 1 and Table 2. Reliability of the scales is checked through Cronbach's Alpha. Range of reliability coefficient of Cronbach's alpha is 'zero to one'. Higher the value of Cronbach's alpha represents internal consistency of the items on the scale but it does not mean uni-dimensionality of the scale (Gliem & Gliem, 2003). It was suggested by Nunnally (1967) that cronbach's alpha between 0.50 and 0.60 is acceptable. The reported results in table 1 show that the reliability of the all construct is above 0.50 except trust and security.

**Table 1**

Construct Reliability

	Cronbach's Alpha
Behavioral Intention	0.787
Compatibility	0.863
Cost	0.545
Perceived Ease of Use	0.826
Perceived Usefulness	0.823
Relative advantage	0.838
Trust and Security	0.475

#### Composite Reliability

Internal consistency of the construct is estimated through composite reliability. Value of composite reliability should be higher than 0.60 (Hair et al., 2016). Values of composite reliability are greater than 0.60 in this study.



**Table 2**

Composite Reliability

Variable	Composite Reliability
Behavioral Intention	0.874
Compatibility	0.888
Cost	0.760
Perceived Ease of Use	0.887
Perceived Usefulness	0.884
Relative advantage	0.903
Trust and Security	0.725

**Assess the value of Discriminant Validity**

Reflective measurement model is used in this study and its validity assessment focuses on discriminant validity and convergent validity. Hetrotrait-Monotrait (HTMT) ratio is used to check the Discriminant validity. HTMT ratio should be less than 0.90 which indicates that constructs are discriminated from each other. According to the results given in the table 3; all the values are below the 0.90.

**Table 3**

Discriminant Validity

	Behavioral Intention	Compatibility	Cost	Perceived Ease of Use	Perceived Usefulness	Relative advantage	Trust and security
Behavioral Intention							
Compatibility	0.165						
Cost	0.624	0.176					
Perceived Ease of Use	0.199	0.080	0.132				
Perceived Usefulness	0.695	0.198	0.387	0.066			
Relative advantage	0.665	0.146	0.243	0.164	0.600		
Trust and security	0.389	0.116	0.478	0.165	0.272	0.286	

**Average Variance Extracted (AVE)**

Convergent validity is equally important as discriminant validity is important. The value of AVE must be greater greater than 0.5 (Fornell & Larcker, 1981). According the Table 4; values of all construct is greater than 0.5 except Trust and security.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 4**

Convergent Validity

	Average Variance Extracted (AVE)
Behavioral Intention	0.699
Compatibility	0.675
Cost	0.516
Perceived Ease of Use	0.724
Perceived Usefulness	0.657
Relative advantage	0.755
Trust and Security	0.486

**Model Evaluation:Structural Model Results**

In this part statistical evidence are provided for theorized model and it is estimated through the structural portion of the model.

**Assess the Multi-Collinearity**

First and foremost thing is examining the structural model for collinearity.





**Table 5**

Inner VIF Values

	Behavioral Intention	Compatibility	Cost	Perceived Ease of Use	Perceived Usefulness	Relative advantage	Trust and security
Behavioral Intention							
Compatibility	1.113						
Cost	1.028						1
Perceived Ease of Use	1.411				1		
Perceived Usefulness	1.380						
Relative Advantage	1.057						
Trust and Security	1.052						

In the context of PLS-SEM (Hair et al, 2016), It is suggested that value of VIF 5 or above indicates the problem of potential collinearity. However, the result given in the Table 5 shows all the values are below 5 thus we can say that the data is free from collinearity problem.

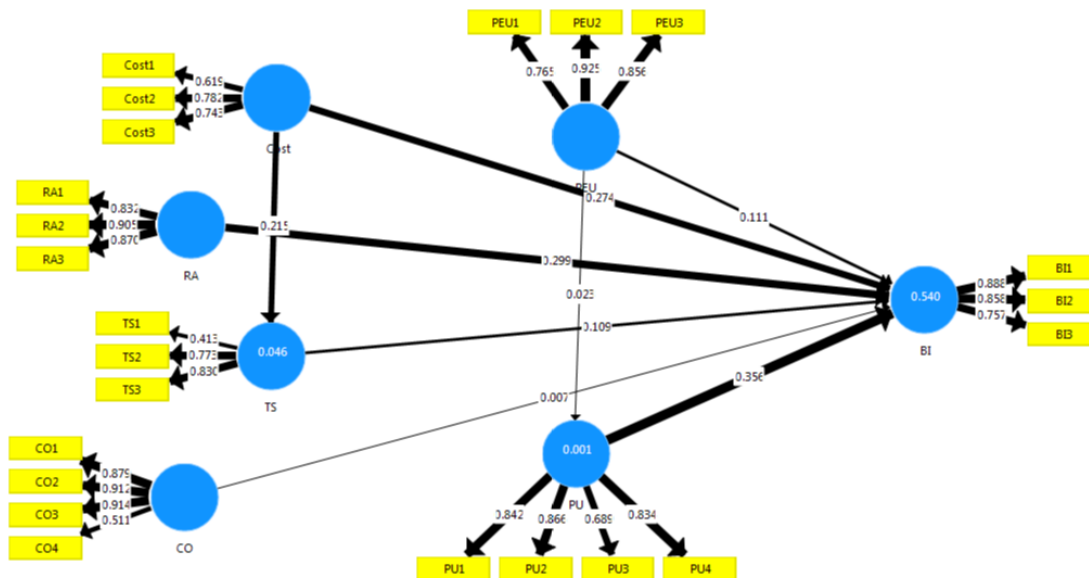
**PLS Path Model Analysis**

Structural model of this study is provided in Figure 2 and figure 3. Arrows shows hypothesized relationships. PLS R<sup>2</sup> represents the amount of variance explained through variables used in the model. In the model; Cost, Compatibility, relative advantage, trust and security, Perceived ease of usefulness and Perceived usefulness and behavioral intention are used. The value of R<sup>2</sup> ranges between 0 and 1, where higher the value better the path model estimation is (Hair et al, 2016). According to Chin (1998), values of 0.19, 0.33 or 0.67 for endogenous latent variables in the inner path model are considered as weak, moderate, or substantial respectively but Wong (2013) claimed that the R<sup>2</sup> value should be at least 0.25. As shown in figure 2 and table 6, the model

explains 54% of the variance in Behavioral Intention which is due to perceived ease of use and perceived usefulness and it is moderate variation (Chin, 1998).

**Figure 2**

*Path analysis*



Activate Windows

**PLS Path Model Analysis using Bootstrapping**

Purpose of Bootstrapping option is to achieve precision in the estimations of the path coefficients (Wong, 2013). T-statistics and P-Values are generated for testing the significance of both inner and outer model. After bootstrapping the next step is to test the proposed hypothesized relationships in model followed by measurement model and goodness of fit. Figure 3 shows the structural model extracted through bootstrapping procedure.

**Figure 3**

Path analysis- Bootstrap

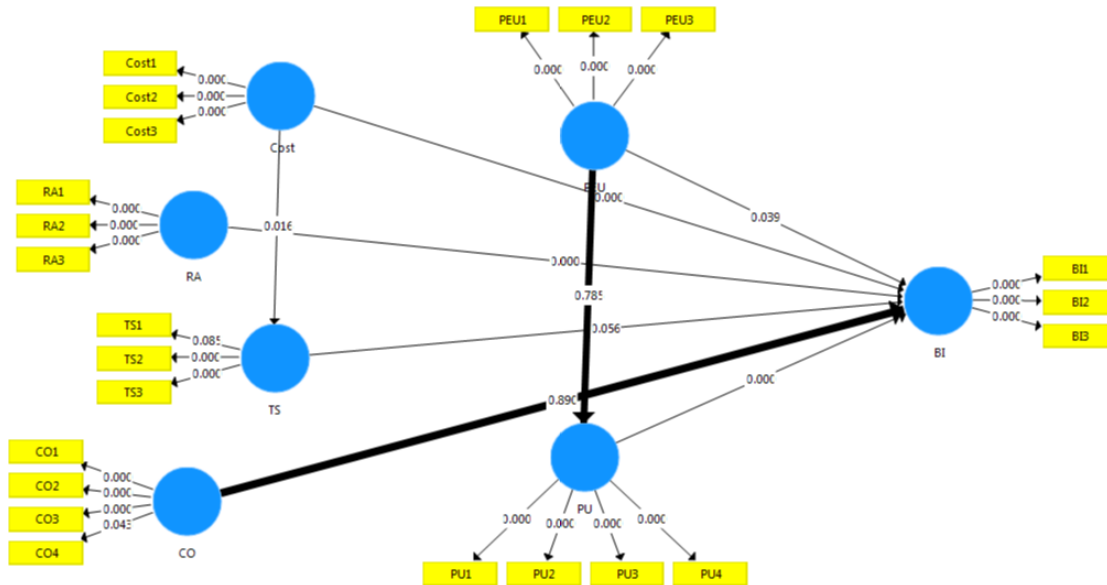


Table 6 represents the p-values of the model which indicates that the path PEU to BI is significant with a p-value of 0.039, which is less than 0.05. Similarly, the path PU to BI is highly significant as p-value is less than 1%. Hypothesized path of Relative Advantage (RA) to BI is highly significant as p-value is less than 1%; Cost to BI and relative advantage (RA) to BI are also highly significant and Trust and security (TS) to BI is significant at 10%.

**Table 6**

Direct Relationship for Hypothesis Testing

		Original Sample (O)	Mean-value	STDEV	T-Statistics	P-Values	Decision
H1	<b>CO -&gt; BI</b>	0.007	0.016	0.049	0.138	0.890	Rejected
H2	<b>Cost -&gt; BI</b>	0.274	0.277	0.045	6.060	0.000	Accepted
H3	<b>Cost -&gt; TS</b>	0.215	0.230	0.089	2.427	0.016	Accepted
H4	<b>PEU -&gt; BI</b>	0.111	0.106	0.054	2.068	0.039	Accepted
H5	<b>PEU -&gt; PU</b>	0.023	0.024	0.083	0.273	0.785	Rejected
H6	<b>PU -&gt; BI</b>	0.356	0.350	0.056	6.379	0.000	Accepted
H7	<b>RA -&gt; BI</b>	0.299	0.298	0.051	5.920	0.000	Accepted
H8	<b>TS -&gt; BI</b>	0.109	0.110	0.057	1.919	0.056	Accepted

Specific indirect effects of the model can be obtained through bootstrapping approach. PLS-SEM generates a bias-corrected confidence interval for indirect paths. The relationships between Cost→BI, Cost→TS and TS→BI are significant which means partial mediation. No mediation exist where PEU→PU is insignificant, PU →BI and PEU→BI are significant.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Model Fit

In Smart PLS, standardized root mean square (SRMR) is used to assess the model fit. The model used in the study, the value of SRMR is 0.083 indicating that model is good fit (Ringle, 2022).

**Table 7**

*Model Fitness*

	Saturated Model	Estimated Model
SRMR	0.083	0.122
d_ ULS	1.919	4.111
d_ G1	0.858	0.953
d_ G2	0.652	0.742
Chi-Square	868.537	901.770
NFI	0.654	0.641

## Conclusion

The aim of the study is to predict the behavioral intention of consumer to use mobile payment service. It is tested through TAM model by re-specifying the integrated model to predict behavioral intention to use mobile payment services by adding some variables from DIT including compatibility and relative advantage and some additional variables like cost and trust and security.

Relationship between Perceived ease of use to behavioral intention (Yan et al., 2021), and perceived usefulness to behavioral intention (Sleiman et al., 2021; Yan et al., (2021) are found in support of technology acceptance model. Cost, compatibility (Tang et al., 2021; Lu et al., 2011) trust and security (Poerjoto et al., 2021; Muangmee et al., 2021) have directly and indirectly significant relationship with behavioral intention to use mobile payment services but relative advantage is highly insignificant relationship with behavioral intention.

This study is considered as an important empirical research related to m-payment technologies. Moreover, it is contributing for identifying the factors which are important to predict the adoption in developing markets. This study also provides an insight of the attitude of Pakistani mobile service user clients.

Partial Least Square Structural Equation Modeling (PLS-SEM) is used as an emerging path modeling approach which is capable of handling data inadequacies.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### References

- Adebiyi, A., Alabi, E., Ayo, C., & Adebiyi, M. O. (2013). An empirical investigation of the level of adoption of mobile payment in Nigeria. *African Journal of Computing & ICT*, 6(1), 197-207.
- Amin, H. (2008). Factors affecting the intentions of customers in Malaysia to use mobile phone credit cards. *Management Research News*.
- Bachfischer, A., Lawrence, E., & Steele, R. (2004). *Towards understanding of factors influencing user acceptance of mobile payment systems*. Paper presented at the IADIS International Conference WWW/Internet.
- Chen, I. J. (2007). Using the Theory of Planned Behavior to understand in-service kindergarten teachers behavior to enroll in a graduate level academic program. *Journal of College Teaching & Learning (TLC)*, 4(11).
- Cheng, Y. S., Yu, T. F., Huang, C. F., Yu, C., & Yu, C. C. (2011). The comparison of three major occupations for user acceptance of information technology: Applying the UTAUT model. *IBusiness*, 3(02), 147.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Dahlberg, T., Mallat, N., Ondrus, J., & Zmijewska, A. (2008). Past, present and future of mobile payments research: A literature review. *Electronic Commerce Research and Applications*, 7(2), 165-181.
- Dahlberg, T., Mallat, N., & Öörni, A. (2003). Trust enhanced technology acceptance model consumer acceptance of mobile payment solutions: Tentative evidence. *Stockholm Mobility Roundtable*, 22, 23.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 13(3), 319-340.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.
- Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*.
- Hardgrave, B. C., Davis, F. D., & Riemenschneider, C. K. (2003). Investigating determinants of software developers' intentions to follow methodologies. *Journal of Management Information Systems*, 20(1), 123-151.
- Heijden, H. V. D. (2002). *Factors affecting the successful introduction of mobile payment systems*. Paper presented at the 15th Bled Electronic Commerce Conference eReality: Constructing the eEconomy, Bled, Slovenia.
- Hoyle, R. H. (1995). *Structural equation modeling: Concepts, issues, and applications*: Sage.
- Kim, C., Mirusmonov, M., & Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment. *Computers in Human Behavior*, 26(3), 310-322.
- Leung, L., & Wei, R. (2000). More than just talk on the move: Uses and gratifications of the cellular phone. *Journalism & Mass Communication Quarterly*, 77(2), 308-320.





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Liu, Z., Min, Q., & Ji, S. (2009, May). An empirical study on mobile banking adoption: The role of trust. In *2009 Second International Symposium on Electronic Commerce and Security* (Vol. 2, pp. 7-13). IEEE.

Lu, Y., Cao, Y., Wang, B., & Yang, S. (2011). A study on factors that affect users' behavioral intention to transfer usage from the offline to the online channel. *Computers in Human Behavior*, 27(1), 355-364.

Mailizar, M., Almanthari, A., & Maulina, S. (2021). Examining teachers' behavioral intention to use E-learning in teaching of mathematics: an extended TAM model. *Contemporary Educational Technology*, 13(2), ep298.

Mallat, N. (2007). Exploring consumer adoption of mobile payments—A qualitative study. *The Journal of Strategic Information Systems*, 16(4), 413-432.

Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, 2(3), 192-222.

Muangmee, C., Kot, S., Meekaewkunchorn, N., Kassakorn, N., & Khalid, B. (2021). Factors determining the behavioral intention of using food delivery apps during COVID-19 pandemics. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1297-1310.

Nunnally, J. C. (1967). *Psychometric theory*.

Noreen, M., Ghazali, Z., & Mia, M. S. (2021). The Impact of Perceived Risk and Trust on Adoption of Mobile Money Services: An Empirical Study in Pakistan. *The Journal of Asian Finance, Economics and Business*, 8(6), 347-355.

Pagani, M. (2004). Determinants of adoption of third generation mobile multimedia services. *Journal of interactive marketing*, 18(3), 46-59.

Plouffe, C. R., Hulland, J. S., & Vandenbosch, M. (2001). Research report: richness versus parsimony in modeling technology adoption decisions—understanding merchant adoption of a smart card-based payment system. *Information systems research*, 12(2), 208-222.

Poerjoto, J. I., Gui, A., & Deniswara, K. (2021, February). Identifying Factors Affecting the Continuance Usage Intention of Digital Payment Services among Millennials in Jakarta. In *2021 25th International Conference on Information Technology (IT)* (pp. 1-4). IEEE.

Ringle, Christian M., Wende, Sven, & Becker, Jan-Michael. (2022). *SmartPLS 4. Boenningstedt: SmartPLS*. Retrieved from <https://www.smartpls.com>

Salehi, M., & Alipour, M. (2010). E-banking in emerging economy: Empirical evidence of Iran. *International Journal of Economics and Finance*, 2(1), 201.

Sleiman, K. A. A., Juanli, L., Lei, H., Liu, R., Ouyang, Y., & Rong, W. (2021). *User trust levels and adoption of mobile payment systems in China: an empirical analysis*. Sage Open, 11(4), 21582440211056599.

Tan, M., & Teo, T. S. H. (2000). Factors influencing the adoption of Internet banking. *Journal of the AIS*, 1(1es), 5.

Tang, Y. M., Chau, K. Y., Hong, L., Ip, Y. K., & Yan, W. (2021). Financial innovation in digital payment with wechat towards electronic business success. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1844-1861.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information systems research*, 6(2), 144-176.

Tobbin, P., & Kuwornu, J. K. (2011). Adoption of mobile money transfer technology: structural equation modeling approach. *European journal of business and management*, 3(7), 59-77.

Wong, K. K.-K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1-32.

Yan, A. W., Md-Nor, K., Abu-Shanab, E., & Sutanonpaiboon, J. (2009). Factors that affect mobile telephone users to use mobile payment solution. *International Journal of Economics and Management*, 3(1), 37-49.

Yan, L. Y., Tan, G. W. H., Loh, X. M., Hew, J. J., & Ooi, K. B. (2021). QR code and mobile payment: The disruptive forces in retail. *Journal of Retailing and Consumer Services*, 58, 102300.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Antecedents and Consequences of Green Marketing: Consumer Purchase Intention**

Hajra Dilawar

University of Veterinary & Animal Sciences business school, Lahore.

#### **Abstract**

This study aims to examine the impact of frugality, Motivation to save, Altruistic value and Consumer skepticism towards green purchase intention in Pakistan. Based on the Theory of Planned Behavior. This study has a quantitative study design. Universities in Lahore of graduate-level were chosen as the sampling frame for the study's undergraduate and postgraduate target populations. 200 questionnaires were distributed in total, and 170 of those were returned. The results were tested through structural equation modeling (SEM). The results of the current study demonstrate a substantial association between the components of the consumer skepticism and green purchase intention. The main contribution of this study is therefore to highlight the antecedents and consequences of green products previous purchase experiences in order to analyze the influence over Green purchase intention, which wasn't mentioned in previous studies. The study findings will assist green merchants in better understanding green purchase intentions and developing innovative tactics to increase green purchase sales.

**Keywords:** Consumer skepticism, motivation to save, Green Purchase intention, Altruistic value, Frugality

#### **Introduction**

Due to the identified current environmental problems, sustainable development has become one of the most important subjects of academic and market discussion (Wang and Wu, 2016; Q. Zhang et al., 2020). Part of this importance relies on the necessity of developing a sustainable production-consumption relationship (Aragao ~ et al., 2020), considering the levels of natural resources used, the emissions of greenhouse gases and the environmental harm due the current production process to attend the high levels of consumption, as observed by Peattie and Collins (2009). Trying to promote the balance between those areas, researchers, companies and governments have led the efforts to create alternatives of production which minimize the negative environmental impacts, as designing sustainable products, well-known green or eco-friendly products (Dangelico and Pontrandolfo, 2010; Costa et al., 2020).

Green products are mentioned in consumption behavior literature as a product which is produced within methods using less natural resources, cause less negative environmental impact and produce less waste (Dangelico and Pontrandolfo, 2010; Policarpo and Aguiar, 2020). It is important to mention that most of the stimulus for more green products originate in consumer's demand for companies' changes onto less environmentally harmful production development (P.-C. Lin and Huang, 2012). Consumers have changed their attitudes on environmental issues because they have become more aware about the negative consequences of their consumption habits and choices, leading them to a more environmental consciousness (Antonetti and Maklan,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

2014; Buerke et al., 2017; Tsuda et al., 2013; White et al., 2019). However, while the conscious consumers, as named by Ottman (1994) and mentioned on Aagerup and Nilsson (2016) work, are said to have a positive pro-environmental products and services attitude, their real actions of purchasing have not been following their discourse, known as attitude/behaviour gap (Anisimova, 2016). It means individuals can not necessarily have the intention to buy green products, even though they have the attitude towards it (Parkinson et al., 2018; Pickett-Baker and Ozaki, 2008).

This leads to the understanding that the offers of green products are not an indicator that consumers will always choose this type of product, but its existence just increases consumers options (Narula and Desore, 2016) and other factors can influence consumers during their purchasing situations, which needs to be better understood. The Theory of Planned Behavior (TPB) substantiates this research about consumers' buying intention by analyzing the antecedents which can influence it, based on human's perception about the possible consequences of the purchase (Ajzen, 1985, 2015, 2015; Parkinson et al., 2018). Moreover, this theory is one of the most used in the consumer behavior field to understand which factors can influence consumer's behavior towards sustainability. In this study, the antecedents are presented by previous purchase experience, environmental consciousness and green attitudes.

Following Peattie and Collins (2009) and Lee et al. (2018) comments, the majority of attitudes and green products studies on consumer behavior are concerned to investigate hypothetical consumption situations, not paying attention to real purchase situations which previously individuals had experimented and the way in which previous experience influences future purchase intentions. In this way, previous purchase experience can be an important variable to better understand sustainable consumption. Considering the general finding about this subject in the consumer behavior field, experiences can promote consumption norms and rules internalization (Antonetti and Maklan, 2014), as result of an individual process of learning, and can be reminded in future during similar purchasing situations (Q. Zhang et al., 2020). To Tracy and Robins (2004), consumers wouldn't engage in sustainable consumption if they had not lived it before and, thus, there are no elements of learning to be reminded of in order to influence their purchase intentions. Considering experiences can modify consumer's perception about the sustainable subject after consumption (Roberts and Bacon, 1997; Tsuda et al., 2013), experiences can affect both consumer attitudes and environmental consciousness on green/eco-friendly products purchase intention.

The resulting experience can enhance environmental consciousness, influencing future consumption decisions and guiding individuals to sustainable consumption (Duerden and Witt, 2010; Wang and Wu, 2016). Additionally, previous purchase experience can contribute to enhance attitudes toward sustainable products because individuals may perceive the effectiveness of their impact on the environment (Curvelo et al., 2019). Thus, it is necessary more



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

investigation to understand the relation among variables. Although previous purchase experience is not a new subject of research to understand consumption behavior, the innovation from this study starts with the link between the perspective of previous purchase experience and its influence on green products purchase intention, thus presenting a new point of view to understand the phenomenon. The research target was undergraduate students, because they are pointed on consumption behavior investigation as more willing, better informed, and have more critical sense to sustainable issues due to current knowledge they get from university (McNeill and Vaughn, 2012) and the access at different source of information which discuss this subject by using their technological skills (Brochado et al., 2017). Thus, they are enabled to make better decisions in respect of green/eco-friendly products and, because of this, they can be nominated conscious consumers. Considering what was mentioned before, in order to lead this study, the research question is: How does previous purchase experience influences environmental consciousness and consumer attitudes towards green products purchase intention? This paper is divided by the following sections: literature review, presenting the variables relations and the study hypotheses, research method, the data analyzes, and, at last, the study conclusions.

## Literature Review

Previous purchase experience is commonly defined as a result of a customer's cognitive, affective, and emotional responses to any direct or indirect contact with the service provider, brand, or, product (McColl-Kennedy et al., 2015; Meyer and Schwager, 2007), and can occur before (Penz and Hogg, 2011), during and after a purchase moment (Duerden and Witt, 2010; Lemon and Verhoef, 2016). Although previous experience is not a recent subject of research in marketing literature, the investigation using this variable to understand green products purchase is still in the beginning (Antonetti and Maklan, 2014; Merli et al., 2018; Q. Zhang et al., 2020). To identify how previous experience can influence consumer behavior considering green product offers, this study focused on a purchase moment experience, because, according to Parkinson et al. (2018), experience results can be considered as a personal source of information that would form the basis of future decisions. Consumers may not realize the positive effects over change their consumption behavior to sustainability because they could not have the opportunity to live in situations in which sustainable consumption was required was Antonetti and Maklan, 2014). Even for consumers who are self-nominated conscious about environmental issues, engage sustainability engagement is just possible if a situation involving sustainable consumption had happened before and the result elements of interaction were internalized (McColl-Kennedy et al., 2015; Tracy and Robins, 2004). Considering the discussion of purchasing in sustainability studies, most cognitive approaches to understanding consumer decisions rely on the perspective of price and environmental information/knowledge (H. Lin et al., 2020).

Price plays an important role in consumers' buying decisions because it triggers a barrier to changing behavior toward sustainable consumption (Ferreira and Coelho, 2017). Nevertheless, information also plays an important role because the negative and positive consequences of the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

previous purchase experiences, considering consumers' access to true (the product be green) or false (greenwashing) information provided by companies, impact consumers' decision-making when facing a similar situation of consumption in the future (Lee et al., 2018; Nuttavuthisit and Thøgersen, 2017). Depending on how these factors influence the experience, individuals can develop purchase behavior towards green products (attraction) or choose other types of products (avoidance), leading consumers to repeat or change their behavior in future similar moments of purchasing (Tracy and Robins, 2004). H. Lin et al. (2020) mentioned that price stimulates customers' post-purchase price search behavior if the experience result was incongruent with the previously established goals. It could enhance a negative feeling which may guide the individuals to not repeat the same behavior on a new purchase moment (Antonetti and Maklan, 2014). In the context of buying green products, which are believed to be more expensive than the regular ones in the same category, the post-purchase price search behavior could be enhanced. Additionally, when the green products' attributes are available during the decision-making process, the information about the positive consequences on the environment could surpass price issues and lead consumers to buy green products (Joshi and Rahman, 2015).

According to Ghali-Zinoubi and Toukabri (2019), studies have shown the green information during purchase moments as one of the most important influences resulting in a positive experience. Considering conscious consumer decision-making, a positive experience (the product being green), can also result in positive feelings, guiding consumers to repeat the consumption behavior (Watson and Spence, 2007). Besides that, consumers who buy considering price as the most important factor of decision and have the knowledge about the consumption impacts on the environment can also have negative emotions as a reaction from the experience and change behavior on future purchase situations to reach a positive impact (Wang and Wu, 2016). This perspective is due to the factor individuals generally think more about performed behavior which results in negative feelings than positive ones, for example, the price paid for a product, impulsive purchase behavior, or the lack of consideration of sustainable products' attributes during the process of decision-making (Cerri et al., 2018; Sandıkcı and Ekici, 2009). Thus, a previous purchase experience can be used as a source of information to support new purchase decisions (Cerri et al., 2018; Q. Zhang et al., 2020) and, considering consumers learn and internalize information about sustainability based on previous experience (Tracy and Robins, 2004), the hypotheses is defined as followed:

H1a. Previous green product purchase experience is positively associated with green product purchase intentions.

### **Data collection**

Firstly, the instrument was pretested in order to make the questionnaire better understandable from the respondents' point of view. In validity of the scales used. The following indicators were analyzed: Cronbach's alpha, composite reliability, average variance extracted (AVE), and convergent and discriminant validity (Cronbach, 1951; Fornell and Larcker, 1981; Hair et al., 2005). The study used covariance-based SEM. This statistical procedure is performed in two steps: 1) measurement model developed to assess its adequacy; 2) structural modeling used to find the best model to test the causal relationships between independent and dependent variables





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

(Anderson and Gerbing, 1988). The statistical software R, Version 3.5.2 for Windows, was used to conduct the analysis.

## Discussion

In this study about previous green purchase experiences, focused on price and information/knowledge about green products, were identified as antecedents of the intention to purchase green products, because, according to the authors mentioned on literature review (Lemon and Verhoef, 2016; Tracy and Robins, 2004; Q. Zhang et al., 2020), it is understood that when the individual is in a situation of purchasing green products, similar to that experienced previously, past experience could serve as an indicator for future purchase decisions, due to internalization of the purchase process, the attempt to avoid negative results present in the previous situation, or to maintain the positive ones. s. Previous experiences would help to internalize the factors associated with sustainability (Tsuda et al., 2013), that is, it would be a variable providing information on the effects of consumption actions to enhance or help to develop consumer environmental awareness (Brochado et al., 2017).

However, from the configuration of the hypothesis result, the hypotheses H1a which was not confirmed, it is understood that previous experiences are not used as a starting point for purchase intentions specifically involving green products. This can be explained by looking at the arguments presented by Lee et al. (2018) and Nuttavuthisit and Thøgersen (2017), that there may be a lack of confidence about whether the product is actually produced considering the characteristics of a green product and, instead of this being a factor for the consumer to be more attentive to the product's environmental protection information, it makes it not a relevant attribute when making choices for new green purchases.

As a matter of fact, it is often difficult for the consumer to access information about the production process of a product to ensure that it is not false information (green washing), negative past experiences can actually serve to distance the consumer from purchasing these products, becoming barriers to sustainable consumption (Cerri et al., 2018; Lee et al., 2018). Thus, the lack of information on whether the green product is in fact green during previous buying moment (Dangelico and Pontrandolfo, 2010), which could drives consumers to looking for more sustainable attributes on the green products in a new moment of purchasing, seemed no to be relevant (Cerri et al., 2018; Q. Zhang et al., 2020)

## Conclusion

This study aimed to investigate the relationship between previous purchase experiences, attitudes towards green products, environmental awareness, and purchase intentions. The findings show that attitudes plays a role as antecedent of purchase intentions of green products. However, that variable does not mediate the effect of previous purchase experiences on purchase intentions. Also, environmental awareness is not influenced by previous purchase experiences of green products, and does not impact purchase intentions. The results show important contributions on





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

studies involving consumer behavior in environmental contexts. Firstly, the observation that environmental awareness does not influence the intention to purchase green products shows that not necessarily the presence of this variable leads to sustainable behavioral intentions. Even knowing the negative consequences of consumption actions on the environment, this factor would not be indicative of a change to sustainable consumer behavior by itself. Despite this result corroborates with investigations that found similar results (Cerri et al., 2018; Leaniz et al., 2018), it indeed represents an important contribution to the field of green products buying intention research. More specifically, the research highlights the perspective of green products previous purchase experiences by analyzing its influence over environmental consciousness and attitudes purchase intention, which wasn't mentioned so far in previous green products consumption behavior studies. Recognizing that studies, such as Brochado et al. (2017), Policarpo and Aguiar (2020) and Roberts (1996), identified the role of environmental awareness on behavioral intentions involving green products, new investigations should deepen this relationship using different elements of observation, such as product attributes and purchase context. In addition, as awareness depends on social implications or dispositions, based on social, normative and personal values for its formation (Anderson and Cunningham, 1972), the need for greater action by public policies and corporate communication and marketing activities to elucidate sustainability issues. Second, the study brings previous buying experience's perspective to analyze its influence on attitudes and environmental awareness, which so far had not been assessed.

Moreover, it has confirmed the attitude effect on green products purchase intentions in accordance with theoretical foundations that states attitudes as a behavior's predictor (Ajzen, 1985; Kaiser and Gutscher, 2003). This research also shows the phenomena in Brazilian context, a developing country. It suggests that both attitudes and environmental awareness' levels in Brazil might be lower than young consumers from more economically developed ones. It is important to acknowledge that the study presents some limitations. First, although the sample size is adequate (Hair et al., 2005), it is not diverse and representative. The sample here is more homogeneous, based on young adults with higher levels of education. This is why a generalization of the proposed model to the overall Brazilian context is not warranted. Second, lacking specificity of the green product considered by the respondents leads to a more generalized result about consumers perceptions.

The proposed model applications considering specific green product categories could make the results different. Third, this research investigates consumer behavior in a cross-sectional approach (correlational study), which requires parsimony of making causal inferences. For future investigations, as the model presents a relevant statistical structure with satisfactory adjustment rates, it is suggested to consider a new positioning of the variables. Environmental awareness and attitudes can be an antecedent of previous green product buying experiences, and the latter positively influencing purchase intent, or environmental awareness and attitudes moderating the effect of previous buying experience on green product purchase intent. Modifying the dimensions of the experiments can also be valid, considering other factors besides the price and the attributes of the products.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## References

- Aagerup, U., Nilsson, J., 2016. Green consumer behavior: being good or seeming good? *J. Prod. Brand Manag.* 25 (3), 274–284. <https://doi.org/10.1108/JPBM-06-2015-0903>
- Ajzen, I., 1985. From intentions to actions: a theory of planned behavior. In: *Action Control*, pp. 11–39. Springer.
- Ajzen, I., 2015. The theory of planned behaviour is alive and well, and not ready to retire: a commentary on Sniehotta, Pesseau, and Araújo-Soares. *Health Psychol. Rev.* 9 (2), 131–137. <https://doi.org/10.1080/17437199.2014.883474>
- Akehurst, G., Afonso, C., Gonçalves, H.M., 2012. Re-examining green purchase behaviour and the green consumer profile: new evidences. *Manag. Decis.* 50 (5), 972–988. <https://doi.org/10.1108/00251741211227726>
- Anderson, J.C., Gerbing, D.W., 1988. Structural equation modeling in practice: a review and recommended two-step approach. *Psychol. Bull.* 103 (3), 411.
- Anderson Jr., W.T., Cunningham, W.H., 1972. The socially conscious consumer. *J. Market.* 36 (3), 23–31. <https://doi.org/10.1177/002224297203600305>
- Anisimova, T., 2016. Integrating multiple factors affecting consumer behavior toward organic foods: the role of healthism, hedonism, and trust in consumer purchase intentions of organic foods. *J. Food Prod. Market.* 22 (7), 809–823. <https://doi.org/10.1080/10454446.2015.1121429>
- Antonetti, P., Maklan, S., 2014. Feelings that make a difference: how guilt and pride convince consumers of the effectiveness of sustainable consumption choices. *J. Bus. Ethics* 124 (1), 117–134. <https://doi.org/10.1007/s10551-013-1841-9>
- Aragao, J.P.S., Holanda, C.L. de S., Castro, J. C de, Costa, M. F. da, 2020. Modelo de apoio à decisão para identificação e priorização de ações socioambientais. *Exacta* 18 (4), 842–857. <https://doi.org/10.5585/exactaep.v18n4.16035>
- Arbuckle, J.L., 2012. IBM SPSS Amos (Tm) 21 User's Guide. IBM SPSS.
- Bagozzi, R.P., Yi, Y., 1988. On the evaluation of structural equation models. *J. Acad. Market. Sci.* 16 (1), 74–94. <https://doi.org/10.1007/BF02723327>
- Barber, N., Kuo, P., Bishop, M., Goodman, R., 2012. Measuring psychographics to assess purchase intention and willingness to pay. *J. Consum. Market.* 29 (4) <https://doi.org/10.1108/07363761211237353>
- Brochado, A., Teiga, N., Oliveira-Brochado, F., 2017. The ecological conscious consumer behaviour: are the activists different? *Int. J. Consum. Stud.* 41 (2), 138–146. <https://doi.org/10.1111/ijcs.12321>
- Buerke, A., Straatmann, T., Lin-Hi, N., Müller, K., 2017. Consumer awareness and sustainability-focused value orientation as motivating factors of responsible consumer behavior. *Rev. Manag. Sci.* 11 (4), 959–991. <https://doi.org/10.1007/s11846-016-0211-2>
- Byun, S.-E., Mann, M., 2011. The influence of others: the impact of perceived human crowding on perceived competition, emotions, and hedonic shopping value. *Cloth. Text. Res. J.* 29 (4), 284–297. <https://doi.org/10.1177/0887302X11422820>
- Cerri, J., Testa, F., Rizzi, F., 2018. The more I care, the less I will listen to you: how information, environmental concern and ethical production influence consumers' attitudes and the purchasing of sustainable products. *J. Clean. Prod.* 175, 343–353. <https://doi.org/10.1016/j.jclepro.2017.12.054>
- Cheah, I., Phau, I., 2011. Attitudes towards environmentally friendly products: the influence of ecoliteracy, interpersonal influence



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and value orientation. *Market. Intell. Plann.* 29, 452–472. <https://doi.org/10.1108/02634501111153674>. Chen, Y., Wang, R., 2016. Are humans rational? Exploring factors influencing impulse buying intention and continuous impulse buying intention. *J. Consum. Behav.* 15 (2), 186–197. <https://doi.org/10.1002/cb.1563>. Chin, W.W., Gopal, A., Salisbury, W.D., 1997. Advancing the theory of adaptive structuration: the development of a scale to measure faithfulness of appropriation. *Inf. Syst. Res.* 8 (4), 342–367. <https://www.jstor.org/stable/23010917>. Costa, M.F., Santos, L.L., Angelo, C.F., 2020. Corporate social and environmental responsibility: do consumers perceive it as being an organizational value? *Gestao ~ Producao ~* 27 (4), e4688. <https://doi.org/10.1590/0104-530X4688-20>. Cronbach, L.J., 1951. Coefficient alpha and the internal structure of tests. *Psychometrika* 16 (3), 297–334. Curvelo, I.C.G., de Moraes Watanabe, E.A., Alfinito, S., 2019. Purchase intention of organic food under the influence of attributes, consumer trust and perceived value. *Rev. Gest~ ao* 26 (3), 198–211. <https://doi.org/10.1108/REGE-01-2018-0010>. Dangelico, R.M., Pontrandolfo, P., 2010. From green product definitions and classifications to the Green Option Matrix. *J. Clean. Prod.* 18 (16–17), 1608–1628. <https://doi.org/10.1016/j.jclepro.2010.07.007>. Duerden, M.D., Witt, P.A., 2010. The impact of direct and indirect experiences on the development of environmental knowledge, attitudes, and behavior. *J. Environ. Psychol.* 30 (4), 379–392. <https://doi.org/10.1016/j.jenvp.2010.03.007>. Enoki, P.A., Adum, S.H.N., Ferreira, M.Z., Aureliano, C.A., de Lima Valdevino, S., da Silva, A.A., 2008. Estrat´egias de marketing verde na percepç~ ao de compra dos consumidores na grande S~ ao Paulo. *Jovens Pesquisadores-Mackenzie* 5, 58–74. Ferreira, A.S., Coelho, A.B., 2017. O papel dos preos e do disp~ endio no consumo de alimentos orgˆ anicos e convencionais no Brasil. *Rev. Econ. e Soc. Rural* 55 (4), 625–640. <https://doi.org/10.1590/1234-56781806-94790550401>. Fishbein, M., Ajzen, I., 1975. *Belief, Attitude, Intention, and Behavior: an Introduction to Theory and Research*. Addison-Wesley Publishing Company. Fornell, C., Larcker, D.F., 1981. Evaluating structural equation models with unobservable variables and measurement error. *J. Market. Res.* 18 (1), 39–50. <https://doi.org/10.2307/3151312>. Ghali-Zinoubi, Z., Toukabri, M., 2019. The antecedents of the consumer purchase intention: sensitivity to price and involvement in organic product: moderating role of product regional identity. *Trends Food Sci. Technol.* 90, 175–179. <https://doi.org/10.1016/j.tifs.2019.02.028>.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Role of Transformational Leadership, Performance Improvement and Organizational Justice in organizational Performance**

Ramsha Hameed

University of the Punjab, Lahore

### **Abstract**

This paper mainly aims at investigating the direct effect of transformational leadership, psychological ownership, work environment, employee involvement, incentives, employee motivation, performance improvement and organizational justice on organizational performance. Quantitative research approach will be applied in order to achieve the objectives, through a questionnaire. Using SPSS 20.0 collected data will be analyzed. The output of the study showed that organizational citizenship behavior mediates the effect of transformational leadership, psychological ownership, work environment, employee involvement, incentives, employee motivation, performance improvement and organizational justice on organizational performance.

### **Introduction**

The conceptual basis for building the significant resources for an agency is ‘Human’. The satisfaction of a number of agencies perhaps derives from the sagacity of leadership and determination, supreme standard, novelty and technical distinction but all of these elements are related to humans. Therefore, since 1980, the important point of concern is human resource management (Huang, 1997). Human resource management signifies the practices and policies required to fulfill human resource (HR) characteristic of a management or administrative role comprising HR planning, recruitment, job analysis, selection, training and development, orientation, compensation, performance appraisal and labor relations (Shaukat et al., 2015). The most important resource for any agency is Human resource, as it helps an agency to achieve competitive advantage (Shaukat et al., 2015). Human resource management practices are defined as a process of motivating, engaging, attracting, reserve and developing employees to ensure the successful completion and the agency and its representatives’ survival (Schuler and Jackson, 1987). Studies have generally collaborated that when HR practices are planned with pertinence, they can assist the agencies to enhance their performance (Nishii et al., 2008).

HR practices are linked with organizational development in such a way that they influence employee behavior and attitudes (Wright et al., 1999). One of the objectives of HR research is to affect employee attitudes and behaviors (Nishii et al., 2008). As mentioned above HR practices are a source of engaging, motivating, developing, and retaining employees. Leadership assert the magnitude of work, build confidence in followers about their performance, motivate employees and taking off the hurdle that impede their desired performance (Zhang & Bartol, 2010). The HR practices are executed to increase motivation among employees (Jiang et al., 2003) and leadership also tends to motivate employees as mentioned earlier. Apart from this, Williams (2003) suggests that HR practices increase employee and organizational performance in public sector firms.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Background of the study**

The ability of an individual or a group of individuals to influence and guide followers or other members of organization with full determination and competence is called leadership. Among various leadership styles, for example, charismatic leadership, transformational leadership, visionary leadership and culture-based leadership, transformational leadership holds paramount importance (Sashkin, 1996). In transformational leadership, a leader works with teams to identify the needed change, creating a vision to guide the change through inspiration and implanting the change with committed members of a group. Transformational leadership inspires people to achieve unexpected or remarkable results (Wright et al., 2012). Such leaders also highlight the importance of organization's performance (Wright et al., 2012).

One of the managerial concepts recently produced by contemporary management thought that has attracted the interest of researchers and practitioners alike is the concept of organizational citizenship behavior (Khosravizadeh et al., 2017). The various consequences of organizational citizenship behavior confirm the role that such behavior plays for both the individual and the organization. This is reflected in the individual's personal life, therefore directly will decrease the performance of the individual, and finally will negatively affect organizational performance (Shanker, 2018). In transformational leadership, the psychological ownership is the feeling of possession over a target an object, concept, organization, or other person that may or may not be supported by formal ownership. In transformational leadership, the work environment is used to explain the surrounding conditions in which an employee works.

Employee motivation in the transformational leadership is an intrinsic and internal drive to put forth the necessary effort and action towards work-related activities. Organizational justice refers to employee perceptions of fairness in the workplace. Regarding investigating the factors that can enhance the organizational performance, this research aims mainly to answer if organization citizenship behavior can mediate the relationship between transformational leadership behavior and organizational performance; in addition to the mediating effect of organizational citizenship behavior in the relationship between psychological ownership, working environment, employee involvement, incentives, performance improvement, organizational justice and employee motivation, to organizational performance.

### **Research Gap**

The relationship between transformational leadership, psychological ownership, work environment, employee involvement, incentives and employee motivation and organizational performance has been studied directly as well as through the mediating effect of organizational citizenship behavior, but it has been proposed that further research is needed that should assess the role of performance improvement and organizational justice in organizational performance (Alhashedi et a., 2021; Ha & Le, 2021).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Problem Statement**

Leaders these days are facing dreadful challenges among which the capability to adapt to the environment that is continuously globally changing as well as maintaining organizational dynamics is significant. Transformational leaders demonstrate particular behaviors to encourage their workers to attain organizational goals and objectives. Furthermore, psychological ownership, work environment, employee involvement, incentives and employee motivation also contribute to organizational performance yet the role of performance improvement and organizational justice with regards to organizational performance has been ignored and thus needs to be investigated (Alhashedi et al., 2021; Ha & Le, 2021).

### **Justification of Study:**

Utilizing transformational leadership styles, organizational leaders have used organizational citizenship behavior in order to attract employees towards organizational performance (Paha et al., 2017; Wright et al., 2012). Researchers have suggested that organizational citizenship behavior is associated with high degree of organizational performance (Caillier, 2016; Desmidt & Prinzie, 2018). Leadership can be described as an important quality of a person, a vital attribute for an organization or a key source for an effective team towards attaining success. The role of a leader is very important in a management field in terms of taking the organization towards success or failure (Drucker, 1985). A transformational leader encourages others to become leaders; as a output the entire organization will be filled with people possessing effective leadership qualities, Kelly (2003). Furthermore, transformational leader motivates his followers to be innovative in problem solving and develop follower's leadership qualities by coaching, mentoring and providing both challenge and support.

Transformational leadership has much in similar characteristic features as that of charismatic leadership. Transformational leadership has a close relationship with the availability of employees to be involved in OCB. transformational leadership is positively correlated with a variety of organizational outcomes. Transformational leaders generate a greater involvement in the work of subordinates. This involvement results in higher efficiency and satisfaction leading to managerial and organizational performance. Psychological ownership positively influences performance since it encourages a sense of ownership and belonging. The participation of employees in decision making, identifying problems and giving possible solution of the problem is employee involvement. Employee who is involved in organization is positively related to organizational performance. Incentives are the rewards that are given to employees on their performance. When an employee is motivated from its organization he or she works more effectively and the performance of organization increases. Employees are committed to the organization when there is justice among employees in this way the employees remains committed to the goals of organization. When an employee improves his performance towards organization then the results obtained are more beneficial for the organization and it leads to the increased organizational performance.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Significance of the study:**

The research found that transformational leadership and organizational performance has strong relationship. Therefore, it will help the managers to create such leadership style in the organizations. Transformational leaders know how to encourage, inspire and motivate employees to perform in ways that create meaningful change. The result is an engaged workforce that's empowered to innovate and help to shape an organization's future success. Organizational citizenship behavior is good for employee performance and productivity in fact, research shows that OCB positively predicts performance. It creates better social interactions between employees. Effective performance management is essential to businesses. Through both formal and informal processes, it helps them align their employees, resources, and systems to meet their strategic objectives. Organizational justice is important as it helps employees to commit to the goals which are beneficial for organizational performance. When an organization focused on increasing results and improving efficiency it leads to performance improvement.

### **Research questions**

Does transformational leadership behavior lead to organizational performance directly and through the mediating effect of organization citizenship behavior?

Does psychological ownership lead to organizational performance directly and through the mediating effect of organization citizenship behavior?

Does working environment lead to organizational performance directly and through the mediating effect of organizational citizenship behavior?

Does employee involvement lead to organizational performance directly and through the mediating effect of organizational citizenship behavior?

Do incentives lead to organizational performance directly and through the mediating effect of organizational citizenship behavior?

Does employee motivation lead to organizational performance directly and through the mediating effect of organization citizenship behavior?

Does performance improvement lead to organizational performance directly and through the mediating effect of organizational citizenship behavior?

Does organizational justice lead to organizational performance directly and through the mediating effect of organizational citizenship behavior?

### **Research objective**

To study the correlation between transformational leadership and organizational performance directly and through the mediating effect of organizational citizenship behavior.

To study the correlation between psychological ownership and organizational performance directly and through the mediating effect of organizational citizenship behavior.

To study the correlation between working environment and organizational performance directly and through the mediating effect of organizational citizenship behavior.

To study the correlation between employee involvement and organizational performance directly and through the mediating effect of organizational citizenship behavior.

To study the correlation between incentives organizational performance directly and through the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

mediating effect of organizational citizenship behavior.

To study the correlation between employee motivation and organizational performance directly and through the mediating effect of organizational citizenship behavior.

To identify the correlation between performance improvement and organizational performance directly and through the mediating effect of organizational citizenship behavior.

To study the correlation between organizational justice and organizational performance directly and through the mediating effect of organizational citizenship behavior.

### **Research Hypothesis**

**H1:** Transformational leadership behavior leads to organizational performance directly and through the mediating effect of organization citizenship behavior.

**H2:** Psychological ownership leads to organizational performance directly and through the mediating effect of organization citizenship behavior.

**H3:** Working environment leads to organizational performance directly and through the mediating effect of organizational citizenship behavior.

**H4:** Employee involvement leads to organizational performance directly and through the mediating effect of organizational citizenship behavior.

**H5:** Incentives lead to organizational performance directly and through the mediating effect of organizational citizenship behavior

**H6:** Employee motivation leads to organizational performance directly and through the mediating effect of organization citizenship behavior

**H7:** Performance improvement increases organizational performance directly and through the mediating effect of organizational citizenship behavior.

**H8:** Organizational justice increases organizational performance directly and through the mediating effect of organizational citizenship behavior.

## **LITERATURE REVIEW**

### **Definition and Relationship among Variables**

#### **Transformational Leadership**

Transformational leadership is a leadership style in which leaders encourage, inspire and motivate employees to innovate and create change that will help grow and shape the future success of the company (Sarah K. White 2018). Transformational leaders influence subordinates to rise their personal interests for the enhancement of the firms (Yukl, 1999). Transformational leaders typically perform four distinct behaviors, 1. Individual consideration 2. Contingent reward 3. Intellectual consideration 4. Leadership. Transformational leaders aim to support, embolden, and motivate the workers (Caniels et al., 2018). Soane et al. (2015) explained that efficient transformational leadership style is the major cause of competitive benefits for any type of organization. Leaders are granted the opportunity to guide, because they are accepted and perceived by followers that they lead like leaders and not because they are selected by superior managers. Transformational leaders would be predictable to magnetize in unprincipled practices, and the judgments of the ethical posture of a leader may play a strong role in affecting the satisfaction of followers with their leader (Alqatawenah, 2018).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Psychological Ownership**

The generated feeling that is formed by employees towards the job they perform is psychological ownership (Ruganzi, 2017). Psychological ownership can be measured, developed and invested to obtain organizational competitive advantages and effective performance. Psychological property speculates a state of individual awareness, thoughts, and trust. Psychological ownership theory (Pierce et al., 2003) propose that individuals experience a cognitive-affective state. Psychological ownership, in their relation with objects when the individuals feel as though the target object is "endemic" (p. 86). Psychological ownership (PO) can be an important mechanism for organizations to motivate the production and definite desirable employee behaviors. The effect of psychological ownership on organizational citizenship behavior on employees is studied by Ahmad and Zafar (2018). The results show that there is an effect of psychological ownership on organizational citizenship behavior. The researcher believes that the individuals' sense of psychological ownership towards work drives them to continuously strive for development in the organization in which they work (Liu et al., 2017).

### **Work Environment**

Transformational leadership is based on principles that create a healthy work environment. The employees participate in sharing the vision of an ideal organization with the leaders. Employees in this situation achieve the high level of achievement and maximize their potential. The employees are valued as individuals but are willing to look beyond themselves and work for the betterment of the organization. Various studies have examined how a working environment can influence an individual, group, or organization in factors such as psychological well-being, job satisfaction (Patterson, Warr and West 2004), leader behavior (Rentsch 1990), staff possession, individual performance (Malcolm, Wes, Shackleton, Dawson and Lawthom 2005; Maitlis, Patterson, West, Shackleton, Dawson, Lawthom, Maitlis, Robinson and Wallace 2005), and financial performance (Kleinman 2004; Patterson, Warr and West 2004). Working environment is a combination of attitudes and expectations explained in terms of static characteristics (for example, autonomy) as well as dynamic characteristics such as behavior-consequence (Campbell, Dunnette, Lawler and Weick 1970; Stringer 2002; Goncalves 2001; Robbins 1999). Payne and Pugh (1976) explained that environment describes a social system's behavioral processes and reflects the values, attitudes, and beliefs of its members who can operationalize through their understandings (Contreras and Barbosa 2013). Work environment plays a key role in improving organizational performance (Massoudi & Hamdi, 2017). The work environment consists of a set of variables that have a direct or indirect effect on employees within their surroundings. This effect may be either positive or negative in their performance.

### **Employee Involvement**

The important factor achieving organization's objectives is employee involvement. Good environment is essential for the worker. If an organization needs to achieve its goals and objectives then it should provide best environment to its workers. Employee involvement is leadership model that focuses on guidance to a leadership that believes in participation and discussion (Pratima Sarangi & Nayak, 2018). Employee involvement includes satisfaction,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

contribution and responsibility. At high levels of job resources, the findings show a strong positive relationship between transformational leadership and employee engagement. In fact, unlike at low and restrained levels of job resources, if transformational leadership increases from low to moderate levels, employee engagement strongly increases. Transformational leaders create a greater involvement in the work of subordinates resulting in higher efficiency and satisfaction, thus elevating overall employee engagement level in organization. The direct participation of staff to help an organization fulfill its mission and meet its objectives by applying their own ideas, expertise, and efforts towards solving problems and making decisions.

### **Incentives**

Incentives are the best way to attract and motivate employees towards work (Chepkemoi, 2018). Incentives are used as motivational tool to motivate employees to improve their performance. Employers may provide monetary or non-monetary incentives through an employee incentive program to motivate employees to uphold excellent behavior and job performance. Incentives are variable rewards given to employees according to their performance. The impact of incentives on the performance of employees is positive. The incentive system should be fair. There are many benefits of giving incentives to employees including: increasing productivity, creating a culture of higher performance, retaining top performers, motivating staff to achieve their goals, improving company morale.

### **Employee Motivation**

Employee motivation is the level of energy, commitment, and creativity that a company's workers bring to their jobs. Motivated employees can lead to increased productivity and allow an organization to achieve higher levels of output. Motivation is an employee's intrinsic passion about and drive to achieve activities related to work. Some employees are motivated by the opportunity to take on new, challenging work, a sign that their manager trusts and relies on them. The level of effort, commitment and energy that an organization's employees bring to their jobs is employee motivation (Kumari & Thapliyal, 2017). The process of activating the reality of employees in positive or negative ways to enhance organizational performance is motivation (Kurose 2013). The benefits of employee motivation includes: higher productivity levels, lower levels of absenteeism, lower levels of staff turnover, great reputation and stronger recruitment. The main features of motivation are a goal-oriented continuous process and a psychological phenomenon that converts abilities into performance.

### **Performance Improvement**

Performance improvement is used to measure the output of a particular business process and then adjust the process to increase the output, increase efficiency or increase the effectiveness of a process. The systemic process of identifying the root causes of a performance issue in an organization and implementing solutions to resolve that issue, helps to ensure the solutions. Performance improvement helps employees achieve growth and strengthen performance within an organization. Performance improvement can be increased by increasing employee engagement, by sharing vision, by recognizing achievement, by giving frequent feedback etc. Performance can be improved by adopting the actions of counselling, written warning,





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
suspension and termination.

### **Organizational Justice**

Research studies investigating the relationship between transformational leadership and organizational justice that it is indeed positively linked to organizational justice. Tyler and Caine (1991) reported that transformational leaders gave an opportunity to their subordinates to express their opinions which were considered a fair practice from subordinates' point of view. It is believed that if leaders do not give attention to fairness, followers will reject leadership authority. Transformational leadership conceptualizes four dimensions, namely, idealized influence (charisma), inspirational motivation, intellectual stimulation, and individual consideration. These characteristics may have influence over social exchange process linking transformational leadership with organizational justice (Pillai et al., 1999b). Organizational justice refers to the employees' perception of fairness in organization, including how decisions are made concerning the distribution of outcome and the observed fairness of those outcomes (Greenberg 1990).

### **Organizational Performance**

Santoso et al. (2020) shows that transformational leadership has a positive relationship with organizational performance, by mediation or without any mediation. Performance is the behavior on how a target is achieved (Armstrong & Taylor, 2014). Performance is the process to ensure that every organizational process used to maximize its team, productivity of employees and also the organization itself. In other words, performance is the thing that are done or not done by the employees (Luthans, 2005). In order to find out the employee's performance in an organization, some certain aspects are needed such as MBO, Self-evaluation, graphic rating scales and checklists. Organizational performance comprises the actual output or results of an organization as measured against its intended outputs. Organizational performance including strategic planners, operations, finance, legal, and organizational development. Organization can perform human, cultural factors, technology, natural resources and economic factors etc. business, people, product and process, are the three Pc's by which organization can increase their performance.

### **Organizational Citizenship Behavior**

Organizational citizenship behavior is all about individual, arbitrary actions by employees that are outside their formal job description. Managers who are aware of the pros and cons of OCBs can help employees to contribute to the organization and avoid collapse. The contribution of OCBs to an organization has been divided into two categories: affiliative and challenging (Chiaburu and Baker, 2006; Grant and Mayer, 2009; Van Dyne, Cummings and McLean Parks, 1995; Van Dyne, Graham and Dienesch, 1994). Towards organization how and why people contribute positively is Organizational citizenship behavior. Organizational citizenship behavior bestows to eliminating the organization's need to allocate infrequent resources, maintaining the correspondent and unity of the organization (Hemaloshinee & Nomahaza, 2017). The willingness to do work of a person towards its organization is described in organizational citizenship behavior. The positive attitudes towards employers are linked to the closure of organizational citizenship behaviors, but self-confidence has been instrumental in strengthening



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

this relationship (Robescu and Iancu 2016). The transformational leader always motivates employees to do more than expected by acting as role models and caring for their needs, which maximizes the level of employee confidence.

### **Relationship Between Variables & Hypothesis Development**

#### **Transformational Leadership, Organizational performance & Organizational Citizenship Behavior**

Transformational leadership is defined as a leadership approach that causes change in individuals and social systems. Transformational leadership is when leader behaviors influence followers and inspire them to perform beyond their perceived capabilities. Transformational leaders can create and manage change. They can create enthusiasm, lower turnover costs. Transformational leaders are more effective in mobilizing their followers to exert extra effort (Bass & Avolio, 1995). Santoso et al. (2020) shows that transformational leadership has a positive relationship with organizational performance by mediation or without any mediation. The positive attitudes towards employers are linked to the closure of organizational citizenship behaviors, but self-confidence has been instrumental in strengthening this relationship (Robescu and Iancu, 2016). The transformational leader always motivates employees to do more than expected by acting as role models and caring for their needs, which maximizes the level of employee confidence.

**Hypothesis 1:** Transformational leadership behavior leads to organizational performance directly and through the mediating effect of organization citizenship behavior.

#### **Psychological ownership, Organizational performance & Organizational Citizenship Behavior**

The feeling of possession over a target an object, concept, organization, or other person is psychological ownership. Ownership is the feeling that something is yours. Psychological ownership is an important tool for organizations to encourage productivity and certain desirable employee behaviors. The actual result of an organization as measured against its deliberated output is organizational performance. Organizational citizenship behavior is used to describe all the positive and constructive employee actions and behaviors that are not the part of their formal job description.

**Hypothesis 2:** Psychological ownership leads to organizational performance directly and through the mediating effect of organization citizenship behavior.

#### **Work Environment, Organizational performance & Organizational Citizenship Behavior**

The condition in which an individual or staff works is work environment. It refers to the elements that comprise the settings in which employees work and impact workers. Work environment includes social features, physical conditions in which employee perform job. A positive working environment promotes employee safety, growth and goal achievement. The employees are valued as individuals but are willing to look beyond themselves and work for the betterment of the organization. Various studies have examined how a working environment can influence individual as well as organizational performance (Malcolm, Wes, Shackleton, Dawson and Lawthom 2005; Maitlis, Patterson, West, Shackleton, Dawson, Lawthom, Maitlis, Robinson and Wallace 2005). The work environment consists of a set of variables that have a direct or indirect effect on organizations and this effect may be either positive or negative in their performance.

**Hypothesis 3:** Working environment leads to organizational performance directly and through





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

the mediating effect of organizational citizenship behavior.

### **Employee Involvement, Organizational performance & Organizational citizenship behavior**

The direct participation of staff to help an organization fulfill its mission and meet its objectives by applying their own ideas, expertise, and efforts towards solving problems and making decisions. It is the process of keeping the employees coordinate with the organization's values and work ethics. Employees feel affiliated with their organizations through involvement that helps them to grow organizational citizenship behavior. Involving the employees gives them more freedom and better performances that eventually contribute towards organizational performance.

**Hypothesis 4:** Employee involvement is indirectly and positively linked with organizational performance through mediating effect of organizational citizenship behavior.

### **Incentives, Organizational performance & Organizational Citizenship Behavior**

A thing that motivates or encourages someone to do something are called incentives. Employee incentives are rewards and advantages that motivate employees to meet business goal. Incentive plans have become valuable tools for driving employee productivity and profitability within the organizations. Incentives motivate employees to perform their tasks with more diligence that is a trait of organizational citizenship behavior.

**Hypothesis 5:** Incentives lead to organizational performance directly and through the mediating effect of organizational citizenship behavior

### **Employee Motivation, Organizational performance & Organizational citizenship behavior**

Motivation increases the trust of the employees in the organization. The employees feel appreciated and work with enhanced enthusiasm which leads to their better productivity and loyalty. It is often said that a motivated employee is a productive employee. Motivating the employee is beneficial as it can change behavior, develop competencies, increase interest, boost engagement in work etc. when an employee is motivated, he or she can do his/her tasks more efficiently and the performance of organization boost up. On the other hand, the willingness of a person to do work towards his/her organization is described in organizational citizenship behavior that can be done through employee motivation.

**Hypothesis 6:** Employee motivation leads to organizational performance directly and through the mediating effect of organization citizenship behavior.

### **Performance Improvement, Organizational performance & Organizational Citizenship Behavior**

Performance improvement is used to measure the output of a particular business process and then adjust the process to increase the output, increase efficiency or increase the effectiveness of a process. Performance improvement helps employees achieve growth and strengthen performance within an organization. Performance improvement can be increased by increasing employee engagement and employee engagement leads employees to develop organizational citizenship behavior.

**Hypothesis 7:** Performance improvement increases organizational performance directly and through the mediating effect of organizational citizenship behavior.

### **Organizational Justice, Organizational performance & Organizational Citizenship Behavior**



Proceedings

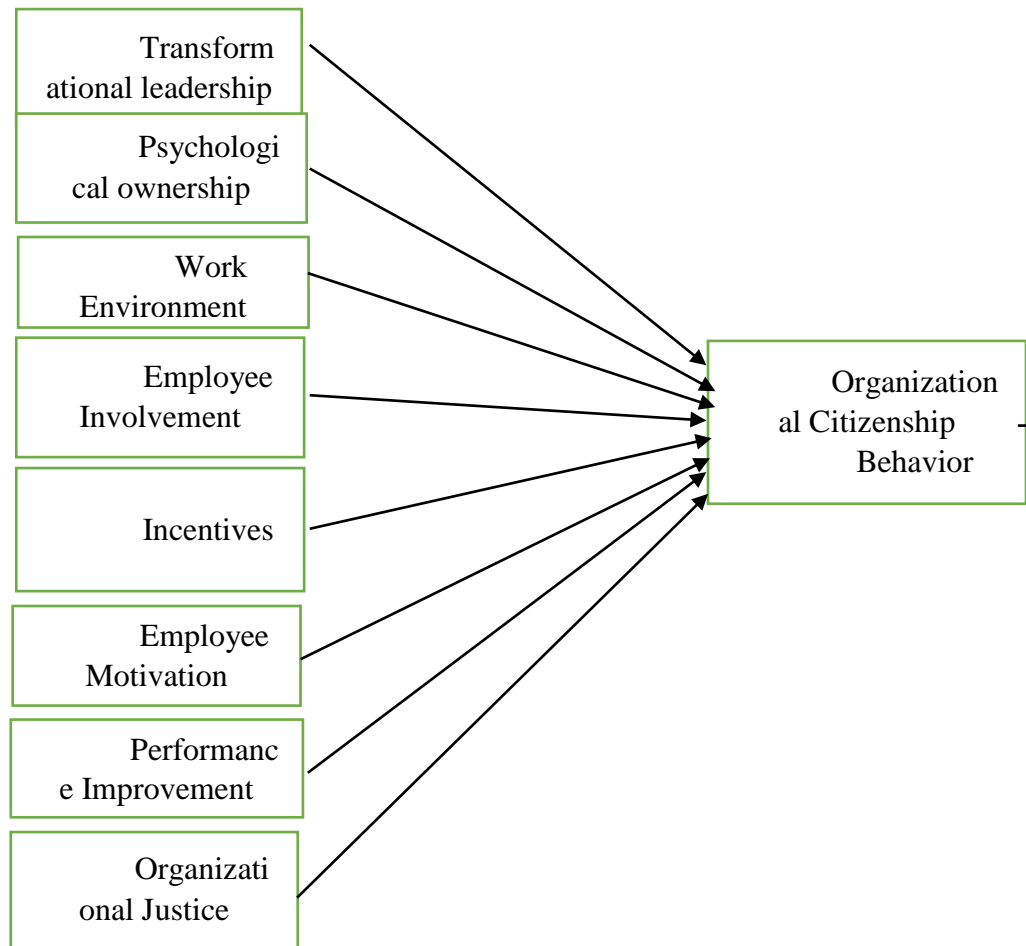
ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Organizational justice refers to employee perceptions of fairness in the workplace. These perceptions can be classified into four categories: distributive, procedural, informational, and interactional. It is important for organizations to ensure that they treat their employees fairly through ensuring that both outcomes and processes are equitable and fair. The organization justice is hypothesized to influence the organizational performance and eventually will affect the organization outcomes or employee's work performance. Employees feel as much affiliative towards their organization as they are treated fairly and thus grow motivation to contribute towards organizational performance.

**Hypothesis 8:** Organizational justice increases organizational performance directly and through the mediating effect of organizational citizenship behaviour

**Theoretical Framework**





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Theoretical Foundation**

### **Transformational Leadership Theory**

In transformational leadership theory a leader works with teams to identify the needed change, creating a vision to guide the change through inspiration. Transformational leadership theory is a theory of combining individual objectives with organizational objectives and develop assurance and values with the organizational objectives (Wang & Howell, 2010). By linking individual's values and beliefs with organizational goals the transformational leadership theory enroots the sense of public service motivation among the employees. Furthermore, transformational leadership theory includes the communication of clear vision that guarantees that the individual's values are conform with the common objectives. Employees relate the organizational objectives with their individual goals and utilize their maximum attempt to accomplish them (Wang & Howell, 2010). Moreover, the transformational leadership theory is responsible for effective clear vision and mission. The transformational leadership theory can enhance the clarity of goals and sense of organizational performance among the employees (Wright et al., 2012). It is a theory in which a leader's behavior hold the followers and inspire them to perform their recognized capabilities.

### **Social Exchange Theory**

By maximizing the reward people makes decisions consciously or unconsciously by measuring the costs and rewards of a relationship is, Social Exchange theory. The basic idea behind social exchange theory is that most of our behavior comes from a desire to maximize our rewards and minimize our costs. From the approach of social exchange theory, it is divine that workers that requite firm's investments in HR practices by being more concerned towards a firm's mission and eagerness for the success of the firm's as observable in increased PSM (Mostafa et al., 2015). In other words, it is suggested that investments in HR practices will lead to employees placing more importance in the firm's performance to serve the public as their obligation increases

### **Methodology**

The methodology in this study will be quantitative study and based on deductive approach. Data will be collected from the survey of corporate sector employees using cross-sessional time horizon. Using close ended questionnaire from the employees of organizations of Lahore, Pakistan. Individual unit of analysis will be used for this quantitative study because researcher intends to identify transformational leadership, psychological ownership, work environment, employee involvement, incentives, employee motivation, performance improvement and organizational justice with the mediating and directly effect of Organizational citizenship



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

behavior on organizational performance. The data will be collected from different organizations of Lahore, Pakistan.

## References

- Alhashedi, A. A. A., Bardai, B., Al-Dubai, M. M. M., & Alaghbari, M. A. (2021). Organizational citizenship behavior role in mediating the effect of transformational leadership on organizational performance in gold industry of Saudi Arabia. *Business: Theory and Practice*, 22(1), 39-54.
- Amin, M., Shamim, A., Ghazali, Z., & Khan, I. (2021). Employee Motivation to Co-Create Value (EMCCV): Construction and Validation of Scale. *Journal of Retailing and Consumer Services*, 58, 102334.
- Armstrong, 2015. Performance improvement <https://www.ijstr.org/final-print/feb2015/Application-Performance-Management-Impact-On-Organizational-Performance-Local-Company-studies-In-West-Java-Indonesia.pdf>
- Buyl, P. (2021). Doctorandus aan het woord: Pieter Buyl: The impact of corporate tax incentives for business: an analysis based on corporate tax returns. *TIJDSCHRIFT VOOR FISCAAL RECHT*, (594), 104-106.
- Hamdi Mosauudi, 2017. Work Environment <https://www.money-zine.com/definitions/career-dictionary/work-environment/#:~:text=The%20term%20work%20environment%20is,as%20work%20processes%20or%20procedures>
- Howell Wang, 2010. Transformational leadership <https://www.cio.com/article/3257184/what-is-transformational-leadership-a-model-for-motivating-innovation.html>
- Iqbal, Q. Organizational Justice and Gender Equity: The Contingent Effect of Islamic Work Ethics.
- Pratt, Mary K. 2017. Leadership. [Searchcio.techtarget.com](http://Searchcio.techtarget.com)
- Purwanto, A., Purba, J. T., Bernarto, I., & Sijabat, R. (2021). Effect Of Transformational Leadership, Job Satisfaction, And Organizational Commitments On Organizational Citizenship Behavior. *Inovbiz: Jurnal Inovasi Bisnis*, 9(1), 61-69.
- Rugangi, 2017. [https://www.sbs.ox.ac.uk/sites/default/files/201806/psychological\\_ownership\\_effects\\_and\\_applications\\_mib\\_briefing\\_no\\_2\\_hf281016.pdf](https://www.sbs.ox.ac.uk/sites/default/files/201806/psychological_ownership_effects_and_applications_mib_briefing_no_2_hf281016.pdf)
- Zhang Yucheng, 2020. Psychological ownership <https://doi.org/10.1177%2F0149206320917195>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Effects of Market Orientation and Sales Manager Control on Salesperson Outcome Performance Through Parallel Mediation Approach: Empirical Evidence from Pharmaceuticals Industry**

Rizwan Qaiser Danish

University of the Punjab, Lahore.

Ibrar Mansoor

National College of Business Administration & Economics, Lahore

Hafiz Fawad Ali

University of Okara, Okara.

**Abstract**

The purpose of this study is to examine the parallel mediation role of sales manager control and salesperson behavioral performance on the relationship between market orientation and salesperson outcome performance in the pharmaceuticals industry in Pakistan.

Improving salesperson performance through sales manager control and behavioral performance is a growing issue in the global pharmaceuticals industry and these factors can improve the performance of the pharmaceuticals industry.

In this study 180 sales managers are respondents and the self-administered survey was employed targeting sales managers working at pharmaceuticals companies operating in Pakistan. Its research utilizes the non-probability convenience sampling for study and study has cross-section type.

Specifically, the results show that market orientation is related to salespersons outcome performance and parallel mediation exists through mediators first sales manager control and then salesperson behavioral performance. The authors discuss the implications of these results and highlight directions for future research.

**KEYWORDS:** Market Orientation, Sales Manager control, Salespersons Behavioral Performance, Salespersons Outcome Performance

**Introduction**

Salesperson activities are distinguishing from other consumer products to generate an outcome in the pharmaceutical industry globally and they face many challenges for achievements salespeople are not directly interact with the consumer and try to convince influencers of products (Harindranath, & Sivakumaran, 2021).

The pharmaceutical industry contributes almost 1% of the GDP of Pakistan but this industry produces rapid growth in-country (Pakistan Pharmaceuticals Manufacture's Association). People who associate with this profession face challenges and they take necessary actions to resolve the problems of the retail market (Ryari, & Wieseke, 2020). The importance of a salesperson drives the need to increases interest and knowledge about salesperson selling skills that affect sales performance (Bagozzi 2016). The major role of the salesperson is to portrait the picture of an organization in front of the customer (Badrinarayanan *et al.* 2019). The rival model presented the outcome performance contribution of 63%, on the other hand, behavioral performance contributed 35% in organization development (Júnior *et al.* 2021). Sales manager's performance





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

relies on salesperson performance, without understanding the issues and problems concerned with these people; it's very difficult to meet the coming challenges in a firm (Svensson 2021). Selling skills have a pivotal role in the pharmaceuticals industry; it's an important weapon to win the war of competition in the sales profession. Every person relates sale require to update knowledge and improve the capabilities to hence outcome (Shahbaz et al., 2021).

The environment of sales is change day by day over time, now it is badly needed to explore the pharmaceutical's market orientation and develop innovative sales strategies in the industry (Chen, 2018). Sales process rely on salesmanship and efficiency drive the sale revenue and sales researchers to increase the effectiveness of salesforce (Singh, 2017). Researchers explained that skills reduce the level of burn out and it provides an easy way to adopt the strategies of sales (McFarland et al., 2021).

Employer requires those managers which can achieve the goals of the firm through salesperson performance (Nigel et al., 2009). The pharmaceutical industry done heavy investments in their sales force (Manchanda et al. 2011). Pharmaceuticals Companies badly require Salesperson Outcome Performance which stimulus by Market Orientation, Sales Manager Control, Critical Selling Skills and Behavior Performance of Salespeople.

### **Theoretical review**

Sales changing environment these days increases problems day by day; it's a time to build strong skills and creativity for better utilization of resources (Epler, & Leach, 2021). It has been argued that salesperson outcome performance requires integrated selling skills (Singh, & Puri, 2017). Moreover salespeople's performance base on resources of the organization associated with selling skills (Liu, & Hochstein, 2020).

### **Critical Selling Skills**

Pharmaceutical sales increase due to improving selling skills from knowledge and experience (Kestane, 2020). However skillful and expert people deliver the relative knowledge of selling skills in pharmaceuticals firm (Rentz et al., 2002). Sales literature present that performance outcome generate through selling skills (Wachner et al., 2009). Furthermore selling skill is pivotal for the pharmaceutical industry, this industry takes action to teach or start learning process to boost selling skills (Widmier et al., 2007). Salesperson evaluates the current situation and integrated the skills to face or overcome these issues in the pharmaceuticals market (Singh et al., 2017). Anderson and Oliver (1987), David W . C raven's (2013) effort for the improvement of salespersons contributes to two dissimilar philosophies.

The area manager has a major focus on outcomes drive-by salesperson behavioral performance, the manager also forces to change organization environment to beat the sale crisis in the pharmaceuticals industry (David 2013).

### **Salesperson outcome performance**

Determinates of sales unpredictable for salespeople and control the sale activities are a real challenge (Walker et al. 2000). Salesperson have a bottommost category of compare behavior with outcome control (Oliver, & Anderson, 1994). Behavior performance is the key element that indicates to perform strategy and action in the process of selling (Limbu et ali., 2016).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

“Salesperson performance has been defined and measured in a variety of ways. Generally speaking, all of these decisions relating to salesforce should be guided by the objectives established by the sales and other managers” (Limbu et al. 2016). Salesperson outcome performance stimulates the employees to fulfill the objectives of the organization (Pesalj et al. 2014). Salespeople Behavior performance create when focusing on the actions and physical activities of the team (Kim et al., 2018). Salesperson outcome performance changing according to gender (Macintosh et al., 2017).

### **Salesperson Behavior Performance**

The unlimited description of market orientation consists of the behavior of the operational market information process concerning customers and competitors, in particular, the reaching of information, distribution information, and the ability to behave in a behavioral opposition to what is received. (William E. Baker et al., 1999). William E. Baker et al. (1999) conclude that superior business performance can be developed from a learning environment created by sales managers. For ultimate performance, the key distinction between two potentials, as behaviors and values are packaged. The strongest direction is the priceless priceless impact on performance and the relationship with the environment developed by the organization. Market orientation improves the performance of both the private and public sectors (Molander, S et al., 2017). The design of marketing to achieve the goals associated with the business can be achieved by satisfying the needs of consumers who play a more effective role in front of the competitor. Market orientation is the weapon that creates the environment to emphatically implement the company's commitment. Organizational effectiveness that is driven by market orientation is not only present due to performance, but also other determinants that show the benefits for the company (Cano, C. R., Carrillat, F. A., & Jaramillo, F. 2004).

### **Market Orientation**

The market orientation provides a comparable significant guideline for high performance in the local and foreign markets (Zebal, M.A. 2018). Lings (2004) and Gounaris (2008) suggested that the inside marketing program involves the results company by providing the best possible input to achieve the goal.

Marketing control is mandatory to get rid of the problems in the traditional view. The brief look at the controls takes into account a contextual concern and balanced financial and behavioral concerns. This theory explains the difficulties of controlling and ultimately developing professional marketing control and management. Use the control systems for behavioral reactions from workers that have an impact on the behavior of employees. Employee performance is improved by the management control system through feedback, which is a fundamental objective of the management control system. Management performance is the overall assessment of the productivity of the work unit (Bernard J. Jaworski 2015). Four dysfunctional behaviors are the same in the situation where companies cannot fully understand the activity. On the other hand, accountability measures only partially reveal the position of the activities that need to be carried out (Anderson and Chambers 1985, Bernard J. Jaworski 2015).

### **Sales Manager Behavioral Control**

These days, managers are faced with the challenge of creating a control system that acts as a



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

backbone of employee performance and also improves performance. To meet the required outcome of the performance manager, the control systems that achieve the desired outcome need to be merged. Very little is known about how different types of controls interact, complement, and replace each other. The combination of control systems improves the behavior of the salesperson and measures the improvement of the salesperson (Zang, Z., Liu, D., Zheng, Y. & Chen, C. 2020).

The current outcome control system of cognitive valuation theory relies heavily on the issue of sales relationship with income and other rewards in the sales force due to the best control management. The salespeople's best sales take into account where favorable results are measured and, on the other hand, the lowest performance also exists in the path of negative reaction and incompetence (Erin Anderson & Richard L. Oliver, 2013).

**H1:** Market Orientation has key relation Sales Manager Control.

**H2:** Sales Manager Control sanguinely effect with salesperson outcome Performance.

**H3:** Salesperson Behavioral Performance positive link with Salesperson Outcome Performance.

**H4:** Market Orientation is strong affiliation with Salesperson Outcome Performance.

**H5:** Critical Selling Skills associate with Salesperson Behavioral Performance.

**H6:** Critical Selling Skills affect Salesperson Outcome Performance.

Insert Figure 1 (i.e. Meditational Model)

## **Methodology**

Choose a non-likelihood convenience sample that is appropriate for research, and a likelihood sample is not favorable to this research. No probability sample is required for this study. The outcome performance through parallel mediation with two variables is considered in this study. This study has a relationship with descriptive nature.

This study aims to measure a salesperson's bottom-line performance by using a serial mediation approach to measure the market orientation relationship. The earnings performance of an associate seller in the pharmaceutical industry in Lahore, Pakistan, key variables, the control of the sales manager, and the impact on the seller's behavioral performance as a mediator are measured here in the study-related pharmaceutical industry. Individual, dyad, or group analysis units are consumed in research. The respondents to this study have an individual analysis unit. Sales department managers are respondents and sales managers, as respondents have different experiences and competencies about the results control system. All investigations belong to two longitudinal and cross-sectional types about the time horizon. A cross-sectional study will be selected for this study. The cross-sectional study is completed once; on the other hand, the longitudinal study container is completed several times. Note that the population is the sales managers who work in a pharmaceutical organization in Lahore, Pakistan. 320 sample size is selected for this study. The entire population cannot be examined because the number of respondents is not defined. For data collection, use the item to response theory to collect responses from respondents.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Measurement results**

Praxis Likert Scale for measuring market orientation, which Deshpande and Farley (1996-1998) are awarded. The sales manager control scale is provided by Babakus et al. (1996) adopted. The behavioral performance of the seller is measured using the five-point scale of Based on Cravens et al.; Behrman and Perreault (1993, 1982) and additional scale is the adoption of seller earnings performance from Cravens et al.; Behrman and Perreault (1993, 1982).

MO has an impact on SOP. The hypothesis of MO and sop is \*\*\*, the estimate value is .193, S.E is .042, and c.r. is 4.653. It demonstrates that mo has durable contact sop.

The above analysis of mediation shows that market orientation without a mediator has a significant direct relationship to the SOP, whose beta value is 0.328 and whose p-value is 0.001 and which is below 0.05. The above analysis of mediation present that market orientation has significant direct relationship without mediator with salesperson outcome performance which have beta value is .328 with p-value is .001 it lesser than 0.05.

### **Results and analysis**

Comprehensive analysis of data using IBM SPSS Statistics Data Editor software and AMOS. This software has estimated measurable analytical capacity. This software is used over and over again for the goal of a quantitative study of sociology. The software design was done to investigate the bootstrapping for mediation and CFA analysis.

### **Discussion and conclusion**

#### **Discussion**

Study relate orientation of market is indispensable for performance, supervisor associates with the sale by controlling advance the performance of salesperson in the institute (Piercy et al. 2009).

The relationship exists along with market orientation and salesperson performance very deepest, the performance of employee considered through market orientation (Haugland et al. 2007). Hypothetical structure exposes the control system of trade done by the sales manager (Katsikeas et al. 2018).

The basic need of his study to develop the output of salespeople in the industry to achieve this goal shows the brunt of market-related activities to reach employees through achievement. Call in control of the sales manager as well, and behavioral performance acts as an intermediary in this relationship and plays its part in the outcome.

#### **Theoretical Implications**

This study observed managers related sales department must be strong command on market, the manager needs reliable control through evaluating, monitoring, and directing employees in the right direction for the achievement of organizational goals. In this study, it was observed that the sales department associated with the manager must have strong market command. The manager must have reliable control by evaluating, monitoring, and directing employees in the right





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

direction to achieve the organizational goals.

Another valuable thing without the control of the sales manager can develop through market orientation. However, the result must meet the requirements of the pharmaceutical company. The sales manager keeps an eye on the behavioral performance of employees and lists the performance result.

### **Conclusion**

The study is one of the determinants, and its positive and negative effects are in different directions on the performance of seller results. This influence reflects the market orientation, the control of the sales manager, and the behavioral performance of the salespeople in the pharmaceutical company.

Relative to previous pharmacy studies, sales performance staff are improving due to the control-related sales manager. This type of research, which explains the sales manager's control as well as behavioral performance, is a powerful pillar of the salesperson's performance and support for the growth of the pharmaceutical industry.

. Salespersons or representatives associate with any organization are the faces of organizations all over the globe. If they perform in better ways organizations grow. . All over the world, the pharmaceutical industry cannot touch the sky of success without the performance of employee-related sales. Every organization wants to achieve the goal. The pharmaceutical organization also has a desire to achieve the goal. This goal requires seller results performance. Salespeople or agents associated with an organization are the faces of the organization around the world. When they perform better, the organization grows.

### **Limitation and Future Directions**

Only observed determinants that affect the salesperson's earnings performance, market orientation and control of the sales manager, and behavioral performance have a serial mediation effect on the salesperson's earnings performance. Soon, critical sales literacy can also be observed as a moderator for seller results performance. This can be a valuable effect.

Another thing that his study includes the area of goods business related to the performance of pharmaceutical industry employees in the marketing department in the coming days from salespeople to development of the organization services are not seen in the service business, salespeople efforts develop the value of services.

Motivational strategies aimed at the salesperson's earnings performance in future research through the control of the sales manager. Motivational strategies can lead to better performance. In the coming days, the researcher can explore the mediation moderation approach by taking into account the moderator-seller's behavioral performance through the mediator's critical selling skills, adaptive sales behavior, and the sales manager's control over seller outcome performance. Salespeople's self-esteem, which in the future study is a key performance factor, must be viewed as a prior impact of self-esteem on pharmaceutical industry growth. In addition, the self-esteem of the seller hinders a great hurdle in terms of performance outcome, in the upcoming research find out the negative relationship to self-esteem assistant factors that help management to remove the hurdle to the seller's performance.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## References

- Alonso, J., Bartlett, S. J., Rose, M., Aaronson, N. K., Chaplin, J. E., Efficace, F., ... & Forrest, C. B. (2013). The case for an international patient-reported outcomes measurement information system (PROMIS®) initiative. *Health and quality of life outcomes, 11*(1), 1-5.
- Arshad, M. Z., & Arshad, D. (2019). Internal capabilities and SMEs performance: A case of textile industry in Pakistan. *Management Science Letters, 9*, 621-628.
- Baker, W. E., & Sinkula, J. M. (1999). The synergistic effect of market orientation and learning orientation on organizational performance. *Journal of the academy of marketing science, 27*(4), 411-427.
- Baldauf, A., & Cravens, D. W. (2002). The effect of moderators on the salesperson behavior performance and salesperson outcome performance and sales organization effectiveness relationships. *European Journal of Marketing.*
- Baldauf, A., Cravens, D. W., & Piercy, N. F. (2001). Examining business strategy, sales management, and salesperson antecedents of sales organization effectiveness. *Journal of Personal Selling & Sales Management, 21*(2), 109-122.
- Cano, C. R., Carrillat, F. A., & Jaramillo, F. (2004). A meta-analysis of the relationship between market orientation and business performance: evidence from five continents. *International Journal of research in Marketing, 21*(2), 179-200.
- Chen, Y. C., Rivas, A. A., & Wu, W. Y. (2018). Exploring the determinants and consequences of salesperson market orientation behavior: An empirical study in the financial service industry. *Journal of Service Theory and Practice.*
- Chinelato, F. B., Gonçalves Filho, C., & Júnior, C. L. N. (2021). Does brand-relationships matter? The role of brand attachment in salesperson performance in retailing. *Spanish Journal of Marketing-ESIC.*
- Epler, R. T., & Leach, M. P. (2021). An examination of salesperson bricolage during a critical sales disruption: Selling during the Covid-19 pandemic. *Industrial Marketing Management, 95*, 114-127.
- Gatignon, H., Gotteland, D., & Haon, C. (2016). *Making Innovation Last: Volume 2*. Palgrave Macmillan UK.
- Gounaris, S. (2008). The notion of internal market orientation and employee job satisfaction: some preliminary evidence. *Journal of Services Marketing.*
- Harindranath, R. M., & Sivakumaran, B. (2021). Pharmaceutical Promotion: A Literature Review and Research Agenda. *New Techniques for Brand Management in the Healthcare Sector, 44-63.*





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Haugland, S. A., Myrtveit, I., & Nygaard, A. (2007). Market orientation and performance in the service industry: A data envelopment analysis. *Journal of Business Research*, 60(11), 1191-1197.

[HTTPS://WWW.PPMA.ORG.PK/](https://www.ppma.org.pk/)

Kappe, E. R. (2011). *The effectiveness of pharmaceutical marketing* (No. EPS-2011-239-MKT).

Katsikeas, C. S., Auh, S., Spyropoulou, S., & Menguc, B. (2018). Unpacking the relationship between sales control and salesperson performance: a regulatory fit perspective. *Journal of Marketing*, 82(3), 45-69.

Kaynak, E., & Chan, T. S. (2014). *Consumer Behavior in Asia: Issues and Marketing Practice*. Routledge.

Kestane, S. U. (2020). Dynamics of Personal Selling and Changing Sales Skills in The Digital Age. *Pazarlama ve Pazarlama Araştırmaları Dergisi*, 13(2), 285-304.

Kim, S. K., & Hsieh, P. H. (2003). Interdependence and its consequences in distributor-supplier relationships: a distributor perspective through response surface approach. *Journal of Marketing Research*, 40(1), 101-112.

Limbu, Y. B., Jayachandran, C., Babin, B. J., & Peterson, R. T. (2016). Empathy, nonverbal immediacy, and salesperson performance: the mediating role of adaptive selling behavior. *Journal of Business & Industrial Marketing*.

Liu, Y., Hochstein, B., Bolander, W., Bradford, K., & Weitz, B. A. (2020). Internal selling: Antecedents and the importance of networking ability in converting internal selling behavior into salesperson performance. *Journal of Business Research*, 117, 176-188.

Macintosh, G., & Krush, M. (2017). Networking behavior and sales performance: Examining potential gender differences. *Journal of Marketing Theory and Practice*, 25(2), 160-170.

Malek, S. L., Sarin, S., & Jaworski, B. J. (2018). Sales management control systems: review, synthesis, and directions for future exploration. *Journal of Personal Selling & Sales Management*, 38(1), 30-55.

Matsui, Jennifer K., Simon B. Lang, Drew R. Heitz, and Gary A. Molander. "Photoredox-mediated routes to radicals: the value of catalytic radical generation in synthetic methods development." *ACS catalysis* 7, no. 4 (2017): 2563-2575.

McFarland, R. G., & Dixon, A. L. (2021). The impact of salesperson interpersonal mentalizing skills on coping and burnout: the critical role of coping oscillation. *Journal of Personal Selling & Sales Management*, 1-25.

Oliver, R. L., & Anderson, E. (1994). An empirical test of the consequences of behavior-and outcome-based sales control systems. *Journal of marketing*, 58(4), 53-67.

Piercy, N. F., Cravens, D. W., & Lane, N. (2009). Sales management control level and competencies: Antecedents and consequences. *Industrial Marketing Management*, 38(4), 459-467.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Rentz, J. O., Shepherd, C. D., Tashchian, A., Dabholkar, P. A., & Ladd, R. T. (2002). A measure of selling skill: Scale development and validation. *Journal of Personal Selling & Sales Management*, 22(1), 13-21.

Rodríguez, R., Høgevold, N., Otero-Neira, C., & Svensson, G. (2021). A sequential logic model between sales performance and salesperson satisfaction in B2B markets. *Journal of Business & Industrial Marketing*.

Ryari, H., Alavi, S., & Wieseke, J. (2020). Drown or Blossom? The Impact of Perceived Chronic Time Pressure on Retail Salespeople's Performance and Customer–Salesperson Relationships. *Journal of Retailing*.

Shahbaz, M., Gao, C., Zhai, L., Shahzad, F., Luqman, A., & Zahid, R. (2021). Impact of big data analytics on sales performance in pharmaceutical organizations: The role of customer relationship management capabilities. *Plos one*, 16(4), e0250229.

Singh, R., Kumar, N., & Puri, S. (2017). Thought self-leadership strategies and sales performance: integrating selling skills and adaptive selling behavior as missing links. *Journal of Business & Industrial Marketing*.

Singh, R., Kumar, N., & Puri, S. (2017). Thought self-leadership strategies and sales performance: integrating selling skills and adaptive selling behavior as missing links. *Journal of Business & Industrial Marketing*.

Singh, R., Kumar, N., & Puri, S. (2017). Thought self-leadership strategies and sales performance: integrating selling skills and adaptive selling behavior as missing links. *Journal of Business & Industrial Marketing*.

Wachner, T., Plouffe, C. R., & Grégoire, Y. (2009). SOCO's impact on individual sales performance: The integration of selling skills as a missing link. *Industrial Marketing Management*, 38(1), 32-44.

Widmier, S. M., Loe, T., & Selden, G. (2007). Using role-play competition to teach selling skills and teamwork. *Marketing Education Review*, 17(1), 69-78.

Zang, Z., Liu, D., Zheng, Y., & Chen, C. (2020). How do the combinations of sales control systems influence sales performance? The mediating roles of distinct customer-oriented behaviors. *Industrial Marketing Management*, 84, 287-297.

Zebal, M. A. (2018). The impact of internal and external market orientation on the performance of non-conventional Islamic financial institutions. *Journal of Islamic Marketing*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 1**

Threshold Measures
Cmin/df <3 good and <5 sometimes acceptable
AGFI >.80
SRMR <.09
CFI >.85 sometimes acceptable >.95 greater >.90 tradational
RMSEA <.05 is good, .10 to .05 is moderate and >.10 is bad
PCLOSE >.05
GFI >.85

**Table 2**

**Model Fitness of Structural Model**

Model	CMIN/DF	CFI	GFI	AGFI	RMSEA
	1.866	.852	.872	.824	.070



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 3**  
**Correlations**

		1	2	3	4	5
Market Orientation	Pearson Correlation	1				
	Sig. (2-tailed)					
Critical Sales Skills	Pearson Correlation	.062	1			
	Sig. (2-tailed)	.408				
Sales Manager Control	Pearson Correlation	.451**	-.003	1		
	Sig. (2-tailed)	.000	.967			
Salespersons Outcome Performance	Pearson Correlation	.328**	-.044	.510**	1	
	Sig. (2-tailed)	.000	.560	.000		
Salespersons Behavioral Performance	Pearson Correlation	-.084	.073	-.187*	.018	1
	Sig. (2-tailed)	.259	.329	.012	.806	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

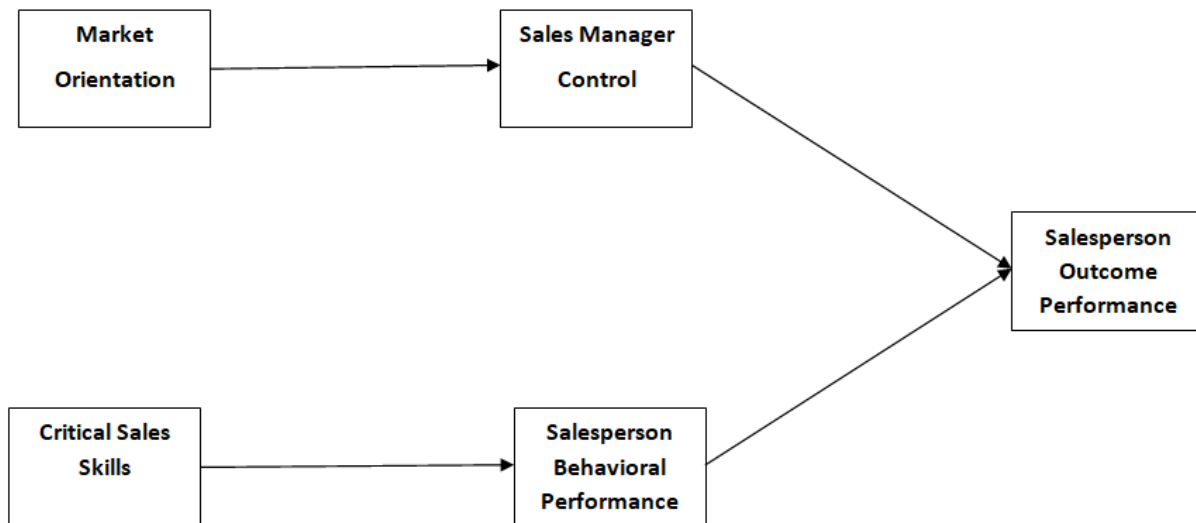
\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 4**  
**Regression Weights: (Group number 1 - Default model)**

	Estimate	S.E.	C.R.	P	Label
Salesperson Outcome Performance <--- Market Orientation	.193	.042	4.653	***	par_1

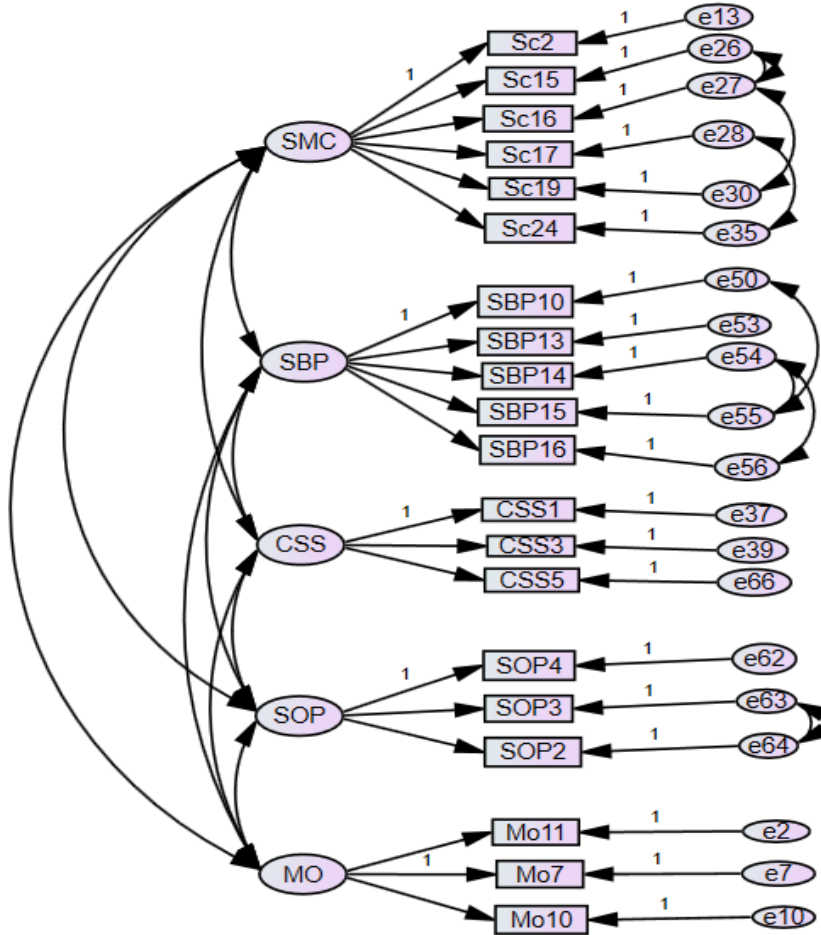
**Table 5**  
**Mediation Result**

	Direct effect w/o Mediator	Direct effect with Mediator	Indirect effect	Result
MO-SMC-SOP	.328***	.123**	.205***	Partial Mediation



**Figure 1**  
**Parallel Meditational Model**





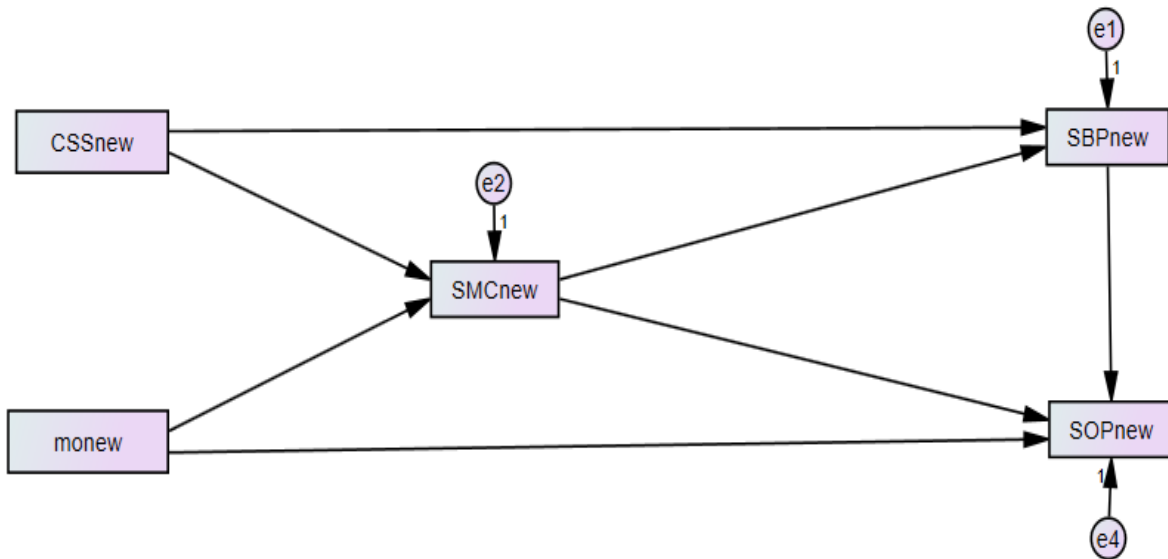
**Figure 2**

**Structural Model**



**Figure 3**

**AMOS MODEL FIGURE**



**Figure 4**

**Mediation Model**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Impact of Covid-19 on Consumer Buying Behavior towards online shopping in Pakistan**

Lubna Khalid

### **Abstract**

With the rising penetration of the internet, online shopping has become ubiquitous with payments and deliveries made easy. Moreover, due to Covid-19, online shopping has become even more attractive, considering the restricted circumstances. This study investigates the possible correlation of Covid-19 to consumer buying behaviors of K&Ns meat products in Pakistan with a specific focus on understanding consumer adaptations to the related restrictions. This study examines extant literature and secondary sales data from K&Ns, a founding pillar and beacon for Pakistan's poultry Industry in Pakistan, to show how the pandemic may have encouraged Pakistanis consumers to embrace technology, as hinted by the surge in online purchases. Some markets have found it difficult to adapt to online shopping, despite the pandemic negatively affecting brick and mortar sales worldwide.

### **Introduction**

Online shopping has revolutionized the marketing strategies of many sellers in recent decades as consumers have grown accustomed to online purchasing and the door-step delivery of products from anywhere in the world (Bucko, Lukáš and Martina 2018; Mohammad et al. 2018). With the eruption of COVID-19, this shift in buyer behavior has greatly accelerated, prompting businesses to reach even their most loyal brick-and-mortar consumers in the digital space. This massive challenge is unprecedented and has forced organizations to formulate novel solutions to adapt to the new normal (Carnevale and Hatak 2020). Restrictive lockdown rules and social-distancing practices have severely disrupted consumer behavior worldwide (Sheth 2020a). As a result, various types of businesses have been forced to find new ways to reach homebound consumers and to re-penetrate their markets. As consumers embrace new digital technologies in their sequestered lifestyles, their daily routines and habits are transforming the space of online shopping (Bucko, Lukáš and Martina 2018).

In Pakistan, companies have found it difficult to invest in the online-shopping space, because, within its economy, Pakistan has not succeeded in creating the large healthy companies that can support the vast changes. Consumers have been hesitant to invest due to multiple factors. E-commerce adoption in Pakistan has faced many obstacles, such as e-payment problems, lack of trust, the fragility of government regulations, the unreliability of telecommunications, the limited availability of technology, and socio-cultural barriers. Apart from these obstacles, given the appropriate infrastructure, e-commerce could increase in Pakistan.

### **Literature Review**

A potential for a recent major increase in online shopping has turned out to be the Covid-19 outbreak. Pham, V. K. (2020) seeks to find out how online shoppers react to their buying behaviors in terms of perceived benefits during Covid-19 [1]. The study examines the role of Covid-19 as a moderator variable in the relationship between the consumer's perceptions of



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

benefits and their online shopping behavior based on the 3856| Sanaullah Memon The impact of attitude and consumer buying behavior towards online purchasing in Pakistan after Covid-19 (A Case Study of SBBU, Campus Naushahro Feroze) collected data from 427 online respondents. The outcomes indicate that Covid-19 plays a moderate role in the awareness of services by customers, which promotes online shopping by shoppers. The transition in consumer behavior during the Covid-19 pandemic towards e-shopping was investigated in 2020 [2]. Variables taken into account are frequency, necessity, mode of payment, price and service availability. A simple random sample of 500 people was subjected to an online questionnaire about their consuming behavior. The study findings showed that the Covid-19 pandemic managed to shift consumer behavior to depend more on online shopping and e-payment methods during Covid-19 pandemic, lockdown and quarantine conditions. A conceptual structure of offline shopping freedom restoration [3] was developed and tested by Akhtar , N., (2020), which reveals the effects of perceived choice hesitation and perceived choice trust on the Psychological reaction of consumers. It also corroborates two bipolar behavioral consequences of the psychological response of consumers: Satisfaction with freedom of choice and persuasion resistance. Nguyen, N. (2020) illustrated the impact of corona virus disease pandemic on the publishing industry [4]. The main objective of the research is to examine the influences of the pandemic situation of Covid-19, utilitarian and hedonic motives on the intention of consumers to purchase books online. The consequences are conceptualized as situational factors that include the closing of physical book stores, health threats associated with visits to such stores, online shopping patterns and additional marketing effects during the pandemic from online bookstores. Addo, P.C. (2020) analyzed the swings in buying behavior [5] following the Covid-19 outbreak in China and around the world on the basis of fear appeal theory and collected published statistics (suspected, verified, and fatality) on the Covid-19 in addition to the purchase of personal protective equipment to investigate the swings in online purchasing behavior.

Soopramanien (2011) studied the development of consumer attitudes toward online shopping and examined the concept of online-shopping skepticism, which reflects people’s fear of online-shopping risks, even when they realize the benefits. The author showed that consumer perceptions of risk decreased as they gained experience and knowledge.

### **Implications**

The findings will help businesses decide whether to further invest in e-commerce platforms or to continue offering products in conventional brick-and-mortar methods.

This research is significant, because it enhances the understanding of Pakistani consumer behavior toward online shopping in response to the COVID-19 pandemic with special focus on K&Ns meat products.

### **Research Motivation**

Despite many problems and ill-perceived policies during covid-19 and the overlooking demand of online purchasing has grown noticeably. While it’s intense need for online shopping has sufficiently attracted about 70% consumer that alternatively keep contributing in the economy of Pakistan even during the time of this world pandemic covid-19 . Therefore the main objective of



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

this research is to see the impact of consumer attitude and behavior towards online purchasing during covid-19 in Pakistan.

### **Research Objective**

- To investigate the impact of consumer behavior towards the online purchasing after covid-19

### **Research Question**

- What is the impact of consumer behavior towards the online purchasing after covid-19 K&Ns meat products in Pakistan?

### **Research Hypothesis**

**H1:** There is positive relationship between consumer behavior and online purchasing after covid-19

### **Methodology**

The study began with a literature review; citing sources from credible journal articles, books, and other content relevant to the research problem (see bibliography). Secondary sales data by K&Ns Pakistan is used reflecting their sales for the first halves of 2019, 2020 and 2021. . Data analysis and graphs are interpreted to understand the disparity between physical and online shopping venues. A comparison is then made to determine consumer behavior patterns in Pakistan before and after COVID-19.

### **Conclusion and Recommendations**

The COVID-19 pandemic is assumed to have affected consumer behavior worldwide, impacting local and global economies. Studies have shown that consumer behavior has changed in response to the pandemic. Studies show that COVID-19 has negatively impacted worldwide economies, disrupting both supply chains and sales channels. The results of this study show that, for the 2 and half years covered, Pakistan consumers' online-shopping rate increased alongside the rise in global and Pakistani COVID-19 cases.

The data obtained through the primary source from the 140 online K&Ns consumers using the five point likert scale questioner. The findings proved that the most of consumer shifted to online purchasing during current pandemic situation of covid-19. Further by analysis regression, observed that the there is positive relationship between consumer behavior towards online purchasing. It is recommended that the online shopping awareness must be delegated to the people in cities in large and country side of the cities so as to maximum benefit be availed to each one.

### **References**

Pham, V. K., Do Thi, T. H., & Ha Le, T. H. (2020). A study on the COVID-19 awareness affecting the consumer perceived benefits of online shopping in Vietnam. *Cogent Business & Management*, 7(1), 1846882.

Hashem, T. N. (2020). Examining the Influence of COVID 19 Pandemic in Changing Customers' Orientation towards E-Shopping. *Modern Applied Science*, 14(8).





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Akhtar, N., Nadeem Akhtar, M., Usman, M., Ali, M., & Iqbal Siddiqi, U. (2020). COVID-19 restrictions and consumers' psychological reactance toward offline shopping freedom restoration. *The Service Industries Journal*, 40(13-14), 891-913.

Nguyen, H. V., Tran, H. X., Van Huy, L., Nguyen, X. N., Do, M. T., & Nguyen, N. (2020). *OnlineBook*

Sheth, Jagdish. 2020b. Impact of Covid-19 on Consumer Behavior: Will the Old Habits Return or Die? *Journal of Business Research*, 117: 280–283.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Evaluation of Energy Cleanability Gap and its Impact on Sustainable Economic Development**

Muhammad Javeed Akhtar

University of Management & Technology, Lahore

Dr Hafeez ur Rehman

University of Management & Technology, Lahore

### **Abstract**

The transition from traditional to sustainable energy is nothing without easy access to clean energy. Therefore, different economies have made smooth transitions but still there is gap in energy cleanability across the world. Here, this study adopted two stage-analyses; initially it presents an overlook of energy cleanability transition through applying Technique for Order Preference by Similarity to an Ideal Solution (TOPSIS) with entropy weightage in low middle & upper middle income countries. Therefore, the fallout of TOPSIS discloses the outcomes and found more divergence trends in lower middle income countries. Furthermore, the current study examined the impact of energy cleanability gap on economic development in selected panels from 2002 to 2019. Then, unclean energy is to blame for the declining trend in economic development. Furthermore, sustainability in the energy transition is more required as it has its costs and benefits and needs more government commitment and regulatory changes. So, avoiding such vulnerabilities requires massive financing to tackle it and improve flexibility to economic development.

**Keywords:** Energy cleanability gap; Economic Development; TOPSIS; Panel Data.

### **Introduction**

Making definite access to reliable, affordable and clean energy for everyone by 2030 is the UN-SDG 7 (“Resolution Adopted by the General Assembly on 25 September 2015,” 2019). The choices of energy for kitchen and other purpose are important to attain SDG-3 (good health and welfare). There is ample proof in literature documents that burning solid fuels in inefficient stoves releases carbon monoxide and other particulate matter, that are harmful to human health. Especially, high health concerns are associated with women and young children. In light of the aforementioned facts, SDG-7 aims to guarantee by 2030 that everyone has access to cleanable energy services.

Emerging economies have made great progress in the last few years toward their gasification and electrification goals. However, an efficient transition must be combined with an efficient public policy that aims to enhance widespread access to environmentally friendly fuels. However, unclean fuels are still used in low middle income economies (LMIE) rural areas. In LMIE 70% of rural households rely on unclean energy for cooking due to poor quality of life, equity, and economy, while in upper middle income economies (UMIE) of 30-35% households are using unclean fuels for cooking. One of the barriers preventing households from effectively switching



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

to clean cooking could be the frequent power and gas load shedding in the LMIE. Therefore, unclean fuels cause indoor and outdoor air pollution in LMIE.

Numerous projects are under completion among different regions and countries anywhere access to clean energy infrastructure is inadequate. Many earlier development projects have required getting better access to low cost and sustainable energy. An extraordinary transition to energy cleanability is in progress in upper and lower Income Countries (LMIE & UMIE). Making easy this transition can guide to further rapid moves forward in community welfare than would or else be viable. Therefore, rapid novelty in infrastructure, technology, market, organization and strategies make energy cleanability transitions extra viable than yet before (J. Akhtar, 2020).

As well to meeting with growing demands of energy and extenuating greenhouse gas discharge, transitions to energy cleanability can help households who experience from energy as well as economic poverty. For case, low cost and clean energy can frankly perk up the income of low income households by increasing their income status, enhancing productivity in agricultural sector, and saving precious time. Clean energy contains different other benefits also, as well as educational achievement, better literacy more free time, and improved access to information and news via from radio, mobile phone and television. Energy cleanability sources can perk up welfare and diminish hard work at the same occasion as they expand work and free time. Whereas empirical studies highlights frequent reimbursement of energy cleanability transition, for the continuing and potential energy cleanability transitions to be successful across countries and regions, it is critical to understand the drivers of such transitions and their effects on human welfare.

In the recent triennial report of the Committee Development Plans(Council, 2022), a number of the low middle income countries (LMIE) are highly vulnerable to shocks arising from socioeconomic and environmental aspects, the structural slow down to sustainable development in these economies have consistently remained a source of global concern. As countries across the globe chart their paths toward attaining the significant goals of the SDGs-2030, governance in the LMIE are expected to deliberately drive the related policies in order to avoid falling behind with significant gap. Therefore, among the economic development (HDI) values, the countries in the LMIE shared the lowest ranking (UNDP and University of Oxford, 2021). Therefore, LMIE are largely faced with the threat of low high illiteracy level, life expectancy, and high income inequality.

The aim of this paper is to compare sustainable energy transition gap in the context of SDGs-2030 in selected countries and estimate the impact of energy cleanability gap on sustainable economic development for the period 2000-19. The important research problems with the prospective of SDGs-2030 are:

What is the current energy cleanability situation in selected countries?

How energy cleanability impact the economic development?

How development expenditure determines the economic development?

How industrial value addition determines the economic development?

How trade liberalization determines the economic development?

The research work contained two stages with 1<sup>st</sup> one are to evaluate the energy cleanability transition of selected countries for period of 2000 to 2019 by employing the TOPSIS techniques to examine the energy cleanability transition. The 2nd steps are to make regression to explore the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

connection of economic development and energy cleanability transition. This study used various predictors of economic development to analyze the impact. The outcomes can assist in making economic development policy in order to achieve SDGs-2030 with energy cleanability transition.

## Literature Review

There is no unified definition of what constitutes "clean" cooking fuel (Akhter & Rehman, 2022). Typically, the word is used to describe cooking methods that do not produce indoor air pollution (such as carbon monoxide or particulate matter) or, if they do, the concentration is very low. Households' choice of cooking fuel is influenced by a variety of factors (M. J. Akhtar, 2020). Socioeconomic considerations, energy preferences, and technological advancements, as well as the availability of energy sources and the cost of energy, are all important influencing factors. A preference of the community, gender standards, recognized traditions, and economic structure are all entwined with the use of unclean fuels for cooking. The economic developmental along with the promotion of sustainability is currently an increasing concern on a worldwide scale. It is because sustainability requires cooperation, accuracy, responsibility, and teamwork among the economic development plan (Akhter & Rehman, 2022).

Furthermore, numerous assessments have been produced like (Yao et al., 2020); (Munten et al., 2021); (Yao et al., 2020); (OECD, 2019); (Li et al., 2022); (M. J. Akhtar, 2020); (Akhter & Rehman, 2022);, and others look into the relationship between broad economic development, energy consumption, and other important economic vectors. The study of (Yao et al., 2020) make systematic review and concluded that studies to the connection between economic development and energy sources are not bound by the same principles. Their study concluded that numerous scholars have investigated empirically impact of total energy consumption on economic development. Moreover, the study of (Munten et al., 2021) capture the basic effects of energy concerns on development, and concluded that the spillover effect between total energy consumption & economic growth on human health. Therefore, he further added in his policy implications that clean fuel is basic needs to enhancement of livelihoods and, more broadly, human development, and now it is become rising subject of SDGs-2030.

Furthermore, the study of (Li et al., 2022) focuses on measures to combat energy-related impact to the health and observed that energy consumption is mostly depends on fossil inputs even in developed countries and furthermore, it has negative impact on health. Furthermore, the study organized by (OECD, 2019) observed that unclean energy still continue to dominate the energy mix in the projected future era, especially in LMIE and remains an essential source of energy for 10 to 15 years more in several economies across the world.

The study of (Garba & Bellingham, 2021) found four potential relationships in literature (neutral, conservation, growth, and spillover theories). Furthermore, they define the neutral theory, when there is insignificant relationship between energy and economic development are found. Furthermore, conservation theory focusing demand management and a reduction in the use of fossil fuels, among others, would not have a negative effect on the nation's economy. Thirdly,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

according to the growth hypothesis, energy is necessary for the nation's economic development. Finally, the spillover theory applies when there is a two-way causal relationship between energy and economic growth (Garba & Bellingham, 2021).

Regarding low middle income economies (LMIE), the study of (Akhter & Rehman, 2022) found that the problems with energy are well known, and researchers are increasingly looking at how energy influences the growth of the region. More recently, using the Fully Modified Ordinary Least Square (FMOLS) as well as Dynamic Ordinary Least Square (DOLS) method, (Li et al., 2022) studied the relationship between energy use and economic growth in LMIE. Applying the same strategy, (M. J. Akhtar, 2020) analyzed how energy and economic development. The study by (Li et al., 2022) that looks into the energy-growth nexus for LMIE and the relationship between energy and economic development, are amongst recent works attempting to understand this relationship. The study of (Akhter & Rehman, 2022), along with several other studies which have investigated these linkages have observed varying conclusions.

This paper crammed a gap of literature by investigating the energy cleanability gap assessment and its empirical impact on economic development in all income panels which segregated by WDI by using a FMOLS and DOLS techniques. Including R&D expenditure, industrial value addition and trade liberalization in empirical analysis for comprehensive assessment in the sense of sustainability which will provides as a significant energy cleanability policy instrument.

This manuscript makes sufficient and significant contribution to the new body of knowledge in the unclean energy use and sustainable development outcomes nexus in several ways. There are existing knowledge gaps in research connecting unclean energy and development outcomes, and this research attempts to overcome some of these gaps. First, given the connectivity that energy produced from unclean energy sources has with the development as discussed in this section, this paper investigates the links between energy usage from unclean sources as one major threat to developmental from a supply-side perspective. Past research has primarily focused their analysis from a demand or total energy consumption perspective. Supply-side analysis that controls for several pressures (economic, demographic and institutional) on developmental quality in the modeling framework is absent.

The second contribution of this study is that it utilizes a comprehensive measure (rather than a singular measure, energy cleanability gap index (ECG): the ECG which captures the loss of cleanability, deterioration to human health, insecurity to water and food sources and the presence of hazardous substances impacting the ecology. The findings based on the ECG provide a greater analytic rigor offering policy implications of greater strength and magnitude. Past studies have overlooked using the ECG in their modeling framework.

A third significant contribution to the new body of knowledge is that past empirical research has not analyzed the clean energy effects the world's collective engagement to limit global development humiliation. The withdrawal of United States of America from the Paris Climate Change Agreement is an example of how a lack of country-level commitment can create





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

vulnerability towards sustainable development. Surprisingly, empirical analysis of the wider world's commitment to overcoming vulnerabilities in economic development remains scant.

The final contribution to new knowledge of this study is that energy cleanability gap are the central drivers that can bring about health issues yet there is rarely a subject of global economic development policy negotiations. This research other than highlighting the impact of unclean energy on the economic development tends to expand that discourse and provide empirical evidence on energy from coal, gas and oil impacting the economic development. It aims to draw more extensive attention and raise awareness in energy producing countries using unclean energy from effective energy policies to achieve improved economic development. It is expected that the governments of unclean energy producing countries can effectively develop their economic development plans to achieve their vision for healthier and global economic development.

### **Data and Methodology**

This research article contains two different phases. The 1st phases was committed to evaluating the energy cleanability assessment in selected countries for the period 2000–2019 by using TOPSIS (Che et al., 2021). We choose the TOPSIS model to incarcerate the performance and dynamics, while concurrently evaluating the stability both within and across the dimension. The 2nd phase was stanch to examining the link among economic development gap and energy cleanability gap, development expenditure, industrial value addition and trade liberalization by employing panel-FMOLS and DOLS for robustness (Li et al., 2022) regression models. Different scholars mingle the TOPSIS with empirical analysis like (Che et al., 2021).

### **Data**

We focus on analysis of 73 countries over the period 2000-2019. Energy cleanability were obtained from using TOPSIS index form by using following variables mentioned in tables 2 and comparative assessment are made among selected countries. Energy cleanability data are obtained from the 2021 WDI and IEA. Total development expenditure, industrial value addition and trade liberalization were obtained from the 2021 WDI.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 2: Selected Countries codes and Variables**

Code	Countries	Code	Countries	Code	Countries	Code	Countries
ALB	Albania	GTM	Guatemala	VEN	Venezuela, RB	MNG	Mongolia
ARG	Argentina	IRN	Iran, Islamic Rep.	DZA	Algeria	MAR	Morocco
ARM	Armenia	IRQ	Iraq	AGO	Angola	NPL	Nepal
AZE	Azerbaijan	JAM	Jamaica	BGD	Bangladesh	NIC	Nicaragua
BLR	Belarus	JOR	Jordan	BEN	Benin	NGA	Nigeria
BIH	Bosnia and Herzegovina	KAZ	Kazakhstan	BOL	Bolivia	PAK	Pakistan
BWA	Botswana	LBN	Lebanon	KHM	Cambodia	PHL	Philippines
BRA	Brazil	MYS	Malaysia	CMR	Cameroon	SEN	Senegal
BGR	Bulgaria	MEX	Mexico	COG	Congo, Rep.	LKA	Sri Lanka
CHN	China	NAM	Namibia	CIV	Cote d'Ivoire	TZA	Tanzania
COL	Colombia	MKD	North Macedonia	EGY	Egypt, Arab Rep.	TUN	Tunisia
COD	Congo, Dem. Rep.	PRY	Paraguay	SLV	El Salvador	UKR	Ukraine
CRI	Costa Rica	PER	Peru	GHA	Ghana	UZB	Uzbekistan
CUB	Cuba	RUS	Russian Federation	HND	Honduras	VNM	Vietnam
DOM	Dominican Republic	SRB	Serbia	IND	India	ZMB	Zambia
ECU	Ecuador	ZAF	South Africa	IDN	Indonesia	ZWE	Zimbabwe
EST	Estonia	THA	Thailand	KEN	Kenya		
GAB	Gabon	TUR	Turkey	KGZ	Kyrgyz Republic		
GEO	Georgia	TKM	Turkmenistan	MDA	Moldova		
Name	Variables	Description		References			
Clean Energy	Access clean cooking energy	(% population)		(Akhter & Rehman, 2022; Che et al., 2021)			
	Renewable energy	(% population)		(Akhter & Rehman, 2022)			
ED	Economic development index	Index (0 to 1)		(Akhter & Rehman, 2022)			



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

IND	Industrial value addition	[Industry (including construction) Value Added % of GDP]	(Akhter & Rehman, 2022)
TRD	Trade liberalization	[Trade % of GDP]	(Akhter & Rehman, 2022)
R&D	Total development expenditure	[Education and Health expense % of GDP]	(Akhter & Rehman, 2022)
CL	Energy Cleanability Gap	Index (0 to 1)	(Che et al., 2021)

### TOPSIS Analysis

With the intention to analyze the 1st and 2nd research problems, this study employed TOPSIS methodology. TOPSIS is a mathematical modeling technique introduced by Ching Lai Hwang and Yoon in 1981 with further developments by Yoon in 1987, and Hwang, Lai and Liu in 1993 (en.wikipedia.org, 2019) to evaluate the relative closeness to the ideal situation. In current analysis, this study engaged TOPSIS to assess the dynamics of energy cleanability during the period 2000–2019. TOPSIS consent exchanges between criteria, where a bad outcomes in one measure can be canceled by a superior outcomes in another standard. This provides a more realistic form of modeling than non-compensatory methods, which include or exclude alternative solutions based on hard cut-offs.

Z is processed to get the standard evaluation matrix.

$$Z = [\beta_{ij}] \quad (01)$$

Where  $\beta_{ij}$  represent the attainment of vectors j for economies.  $i, i \in [1, m], j \in [1, 8]$

M is procedure to acquire the typical decision based matrix

$$M = [\gamma_{ij}]_{m \times 8} \quad (02)$$

While the significance of vectors in energy cleanability assessment changes, the weight through entropy is espouse in this study. Agree to  $K = [k]_{ij}$  be the weighted standard matrix.

$$k_{ij} = \sum_{i=1}^m \gamma_{ij} \times \omega_j, \omega_j > 0 \text{ and } \sum \omega_j = 1 \quad (03)$$

The random assortment of ideal solutions outcomes in a rank turnaround. The restrictions of each vector right through are defined as entire optimistic and pessimistic idyllic solutions. The selected panel contains only 129 countries in this study due to data availability limitations. So, absolute optimistic idyllic solutions can be written as

$$K^+ = \{k_{1worst}^+, k_{2worst}^+, \dots, k_{8worst}^+\} \quad (04)$$

Where  $k_{jworst}^+$  is the least amount of indicator j. Absolute damaging optimistic solutions are written as:

$$K^- = \{k_{1best}^-, k_{2best}^-, \dots, k_{8best}^-\} \quad (05)$$

Where  $k_{jbest}^-$  is maximum of indicator j

Virtual negative ideal solutions are introduced for pick up a better ideal condition.

$$K^* = \{k_1^*, k_2^*, \dots, k_8^*\} \text{ (where } k_j^* = 2k_{jworst}^- - k_{jbes}^+ \text{)} \quad (06)$$

Alteration through the absolute pessimistic idyllic solutions  $K^-$  to keeps away from Euclidean distance withdrawal.

$$S_i^+ = \sqrt{\sum_j^8 (k_{ij} - K_{jbes}^+)^2} \quad (07)$$

$$S_i^- = \sqrt{\sum_j^8 (d_{ij} - K_j^*)^2} \quad (08)$$

The comparative proximity is clear as:

$$E_i^* = \frac{S_i^+}{S_i^+ + S_i^-} \quad (09)$$

Where,  $0 \leq E_i^* \leq 0.1$  the countries with  $E_i^*$ , in order of least to a most significant decrease, are organized and the countries with occurrence lower unclean energy.

### Methodology

This study analyzes the impact of energy cleanability, development expenditure, industrial value addition and trade liberalization based on the following regression model:

$$ED_{it} = \alpha_{it} + \delta_1 \ln CL_{it} + \delta_2 CL_{it}^2 + \delta_3 \ln EXP_{it} + \delta_4 \ln TRD_{it} + \delta_5 \ln IND_{it} + \varepsilon_{it} \quad (10)$$

Where;  $t = 1, 2, \dots, T$ ,  $i = 1, \dots, N$

$t$ , represents time across period,  $T$ ;  $i$  symbolized here cross section in selected panel,  $\alpha_{it}$  are intercept and  $\varepsilon_{it}$  indicate anticipated residual which reveal the divergence from the long term association.

In equation (01), if the EKC hypothesis holds, the coefficient of energy cleanability must be statistically significant. The important objectives are to analyze the link among economic development and energy cleanability, development expenditure, industrial value addition and trade liberalization. In literatures different studies argued that cointegration methods are helpful to classify the links among variables. Different techniques are adopted to check validation of data set and unit root tests are one of more important techniques for stationarity characteristics of the selected variables.

### Unit Root Test

Furthermore, Unit root test and cointegration test procedures are based on the assumption that variable is inclined to shift towards a long-run equilibrium in their respective period. Since the panel data in this study has a long time span and encounters unstable problems, spurious regression is likely to be conducted. In the meantime, the threshold regression model requires the threshold variables in the model are stationary. Thus, prior to empirical estimation, a stationarity test is first performed to check the stationary properties of observed variables. The most frequently used panel techniques of unit root test is the LLC method that is originated via the Augmented Dickey Fuller (henceforward ADF) test. LLC supposed that beneath equally the null and alternative assumption, the entire groups have the identical autoregressive coefficient (Wiredu et al., 2020). Hence, to description for the leeway of correlation and possible spillage crossways countries, The structure of the LLC (Levin et al., 2002) analysis may be specified as follows:

$$\Delta Y_{it} = \rho Y_{it} + \alpha_{0i} + \alpha_{1i}t + u_{it}, i = 1, 2, \dots, N, t = 1, 2, \dots, T \quad (11)$$

Where  $t$  is time tendency ( $\alpha_{1i}t$ ) as well as individual special effects ( $\alpha_i$ ) are included.  $u_{it}$ , is supposed to be distributed but independently across each and follow a stationary, ARMA





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
 procedure for every individual.

$$u_{it} = \sum_{j=1}^{\infty} \theta_{ij} u_{it-j} + \epsilon_{it} \quad (12)$$

The IPS method is the expansion of LLC however permits for heterogeneity by allowing for the employ of means of the ADF analysis and probability chance. Consequently, in contrast to LLC, short panel are required for a higher test power (Behera et al., 2020). For the observation  $N$  group and time period,  $T$ , the IPS panel stationarity regression can be written as follows (Behera, 2021);

$$\Delta X_{it} = \alpha_i + \pi_{it} + \beta_i X_{i,t-1} + \sum_{j=1}^k \varphi_{it} \Delta X_{i,t-1} + \epsilon_{it} \quad (13)$$

Conversely, both (LLC&IPS) procedures have the shortcoming of pretentious independence crosswise segregation of the selected panel (Garba & Bellingham, 2021). It supposes a homogeneous group. The test is developed by Im, Pesaran, and Shin (2003). The method adjusts the heterogeneity and finds  $t$ -statistics value from augmented Dickey Fuller (ADF) regression.

### Cointegration Techniques

Furthermore this study performs three cointegration techniques which are Pedroni (2004) Fisher and Kao (1999) test that manage up the issue and reliable results. Pedroni cointegration techniques tackles the assumption of homogeneity and as well as heterogeneity. Mathematically it is represented as:

$$ED_{it} = \alpha_i + \lambda_{it} + \sum_{j=1}^m \beta_{j,i} CL_{j,it} + \zeta_{it} \quad (15)$$

$\zeta_{it}$ , is residuals and Kao test based on homogeneity assumption across all panels and on his way it follows the similar draw near as the Pedroni, but is based on the assumption of homogeneity across panels with:

$$CL_{it} = \alpha_i * ED_{it}\beta + \omega_{it} \quad (16)$$

$\alpha_i$  = Individual constant term,  $\beta$  = slope parameter, as well as  $\omega_{it}$  = stationary distribution.

### Estimation Techniques

Now this study proceeds further to examine the long run impact among energy cleanability and energy cleanability, development expenditure, industrial value addition and trade liberalization. Substantial complications arise in the estimation of such model. In both the fixed and random effects settings, the difficulty is that the lagged dependent variable is correlated with the disturbance term, even if it is assumed that  $\epsilon_{it}$  is not itself auto correlated.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### Fully Modified Ordinary Least Square Method

The fully modified OLS (FMOLS) and the panel Dynamic OLS (DOLS) methods proposed by Pedroni and Chiang (Li et al., 2022) and Kao (Akhter & Rehman, 2022), respectively. FMOLS method is also considered as non-parametric techniques of estimation which corrects biasness of OLS with endogeneity and serial correlation issues among vectors and residuals. Thus, it has fewer assumptions. In this case, FMOLS estimation can be performed with the following equation:

$$\omega_{GM} = N^{-1} \sum_{i=1}^N \left[ \sum_{t=1}^T (\Delta CL_{it} - CL'_i)^2 \right]^{-1} \left[ \sum_{t=1}^T (CL_{it} - CL'_i) ED'_i - T\tau_i \right] \quad (17)$$

### Dynamic Ordinary Least Square Method

For robustness, we apply the DOLS estimation techniques generated by Pedroni (2001), it is a flexible method owing to allowing the heterogeneous vectors cointegration within dimension. It is a parametric technique and normally dispersed test which regulates errors during reinforcing static regressors by leads and lags values at 1<sup>st</sup> differences. The DOLS method can be expressed by the following equation:

$$ED_t = \gamma_i + CL'_i \beta + d_{1t} \psi_1 \sum_{j=q}^r \Delta CL'_{t+j} \delta + \mu_{it} \quad (18)$$

DOLS and FMOLS produced more reliable estimates.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Estimation results**

#### **Performance towards Energy cleanability**

The most common measure of the clean energy gap (ECG) in the suggested evaluation method (TOPSIS) is conceded out are presented in Table 4.1. The energy as an essential factor of production and it has been central not only in driving economic development but also sustaining livelihoods. The study outcome illustrates that 55% out of the thirty nine UMICs countries converging towards sustainable and cleanable energy from 2002 to 2015 the study periods. Moreover, electricity production from oil sources has is gradually declining. Furthermore, the ECG indices have fluctuated over time for different countries and due to that, 26% UMIE has faced the divergence. The reason behind this divergence is that quality of access to clean energy may have significant impact over the household behavior in selection of fuel and 19% countries maintain their 2019 from 2015 ECG score. In this context, UMICs have priorities of economic expansion with traditional energy based infrastructure of industrialization. Considering the ECG scores of LMIE, 55% from of 34 showed little bit convergence. However, their share of clean energy source in their aggregate energy share is also very low because there are many factors that affecting like energy prices has a significant impact on the choice of cooking fuel. Similarly, households in Kazakhstan and the Kyrgyz Republic located in regions with lower gas prices are more likely to consume clean fuels such as natural gas and are less likely to use solid fuel ovens. 34 % maintained and 11% LMIE shows divergence during 2000-15. Household size affects the choice of cooking fuel. Larger households are more likely to use coal and wood in LMIE and more likely to use cleaner fuels such as electricity in urban areas.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 3: Ranks of Energy Cleanability Gap**

Code	2000	2005	2010	2015	2019	Code	2000	2005	2010	2016	2019	Code	2000	2005	2010	2016	2019
<b>UMIE</b>																	
RUS	0.32	0.29	0.29	0.25	0.25	CRI	0.43	0.41	0.42	0.41	0.40	THA	0.50	0.48	0.47	0.45	0.45
EST	0.33	0.27	0.26	0.23	0.24	ECU	0.44	0.42	0.41	0.39	0.40	GAB	0.51	0.48	0.47	0.45	0.45
VEN	0.34	0.33	0.34	0.34	0.36	MEX	0.44	0.43	0.43	0.41	0.41	MKD	0.54	0.51	0.50	0.48	0.47
TKM	0.36	0.32	0.30	0.25	0.26	ARM	0.46	0.42	0.41	0.40	0.39	CHN	0.57	0.53	0.49	0.45	0.45
MYS	0.38	0.36	0.34	0.32	0.32	BGR	0.46	0.39	0.39	0.36	0.37	BIH	0.58	0.54	0.50	0.46	0.43
ARG	0.39	0.37	0.37	0.35	0.36	COL	0.46	0.44	0.43	0.42	0.41	BWA	0.58	0.55	0.53	0.51	0.49
BLR	0.39	0.37	0.36	0.34	0.35	DOM	0.46	0.45	0.44	0.42	0.42	ALB	0.59	0.54	0.50	0.46	0.45
TUR	0.39	0.38	0.37	0.35	0.35	AZE	0.47	0.42	0.41	0.38	0.38	GEO	0.59	0.54	0.50	0.45	0.44
JOR	0.40	0.39	0.39	0.38	0.39	IRQ	0.47	0.41	0.39	0.36	0.35	PRY	0.59	0.56	0.54	0.51	0.50
KAZ	0.40	0.33	0.27	0.24	0.25	JAM	0.47	0.44	0.44	0.42	0.41	GTM	0.61	0.60	0.60	0.58	0.58
LBN	0.40	0.38	0.38	0.37	0.37	SRB	0.47	0.45	0.44	0.41	0.40	NAM	0.62	0.60	0.59	0.58	0.57
IRN	0.41	0.37	0.34	0.31	0.32	ZAF	0.48	0.43	0.39	0.36	0.35	PER	0.62	0.55	0.51	0.48	0.47
BRA	0.42	0.41	0.40	0.39	0.39	CUB	0.50	0.48	0.46	0.45	0.45	COD	0.67	0.64	0.61	0.57	0.53
<b>LMIE</b>																	
UKR	0.53	0.50	0.50	0.51	0.51	NIC	0.78	0.76	0.74	0.72	0.71	CMR	0.86	0.85	0.84	0.82	0.81
TUN	0.57	0.56	0.55	0.54	0.54	ZWE	0.78	0.78	0.79	0.79	0.79	COG	0.86	0.85	0.84	0.81	0.81
DZA	0.59	0.57	0.56	0.54	0.55	HND	0.79	0.76	0.74	0.71	0.71	BGD	0.87	0.86	0.85	0.84	0.83
MAR	0.59	0.57	0.56	0.56	0.56	SEN	0.79	0.79	0.79	0.78	0.79	GHA	0.87	0.86	0.85	0.82	0.82
UZB	0.59	0.57	0.56	0.55	0.56	MNG	0.80	0.77	0.73	0.66	0.64	IDN	0.87	0.82	0.75	0.69	0.67
EGY	0.60	0.57	0.56	0.54	0.54	IND	0.82	0.79	0.77	0.74	0.74	KHM	0.88	0.87	0.86	0.84	0.83
MDA	0.66	0.62	0.59	0.57	0.57	PAK	0.82	0.79	0.77	0.75	0.74	BEN	0.89	0.89	0.88	0.87	0.87
BOL	0.67	0.65	0.63	0.67	0.66	CIV	0.83	0.83	0.83	0.83	0.83	KEN	0.89	0.88	0.87	0.85	0.85



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

SLV	0.70	0.66	0.63	0.60	0.59	LKA	0.84	0.83	0.82	0.80	0.79	NGA	0.89	0.89	0.88	0.88	0.87
KGZ	0.70	0.67	0.64	0.60	0.60	VNM	0.84	0.79	0.73	0.66	0.64	TZA	0.89	0.89	0.89	0.89	0.89
AGO	0.77	0.75	0.74	0.73	0.72	ZMB	0.84	0.84	0.84	0.84	0.84						
PHL	0.77	0.76	0.75	0.74	0.74	NPL	0.85	0.84	0.82	0.81	0.80						

---



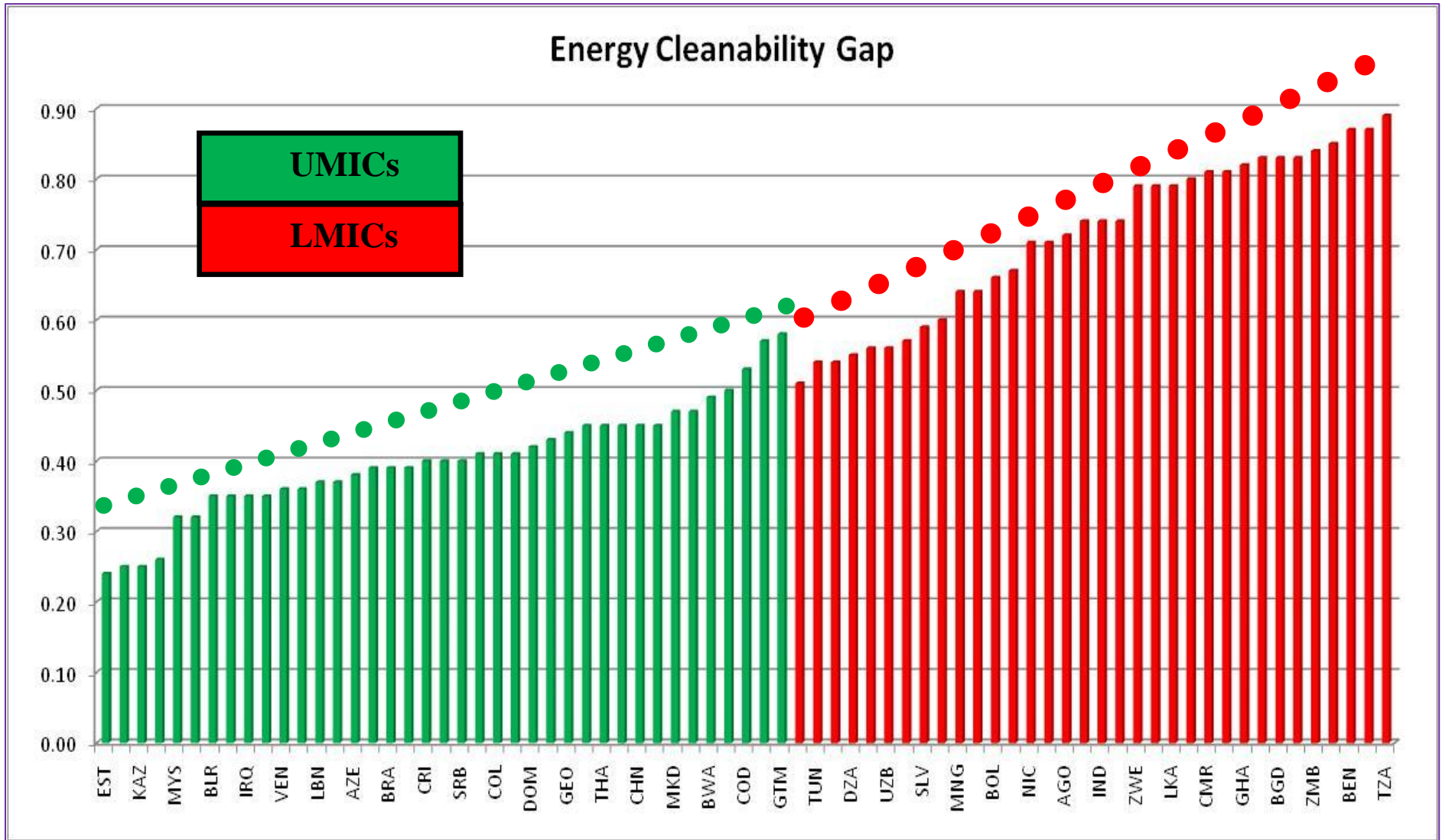


Table 5 shows the variance inflation factor to check the issue of Multicollinearity using variance inflation factor is appropriate process, and pursue the standard, the digit should be not as much of 10, then there is no concern of Multicollinearity.

**Table 4: Variance Inflation Factor**

	ED	CL	R&D	IND	TRD
ED	-----				
CL	1.097	-----			
R&D	1.520	1.010	-----		
IND	1.170	1.091	1.261	-----	
TRD	1.003	1.010	1.118	1.031	-----

After using the formula for VIF ( $\frac{1}{1-r^2}$ ) the results of all variables are less than the critical value. So, all variables show that there is no problem of Multicollinearity. The maximum value of VIF for electricity consumption is 1.520 which is under the line or range of 10. So there is no issue of Multicollinearity. Furthermore, various unit root test are used to evaluate the stationary variables to prevent spurious regression outcomes. An abstract of the outcomes from the different unit root tests are presented in Table 5. The null hypothesis of unit root test is that, “there exists a unit root”.

**Table 5: Unit Root Tests**

Variables	LLC	IPS	ADFF	PPF
HDI	-10.17***	4.12	226.26	856.79***
$\Delta$ HDI	-11.14***	-10.24***	541.81***	1324.65***
ECG	-3.37***	-2.60***	160.28***	409.03***
$\Delta$ ECG	-20.20***	-15.26***	375.43***	589.88***
R&D	-4.00***	-0.87	266.82	304.08**
$\Delta$ R&D	-19.07	-19.24***	778.02***	1845.22***
IND	-3.56***	0.63	233.15	284.69
$\Delta$ IND	-19.75***	-19.19***	776.57***	1848.70***
TRD	-4.60***	-0.56	248.64	243.11
$\Delta$ TRD	-20.52***	-18.33***	820.29***	1523.60***

\*\*\*, \*\*, \* shows significance level at 1%, 5% and 10% respectively

The results indicate that some variables accept the null hypothesis that the variables are not stationary at the level and there is a unit root process in the panel. However, the results of the stationarity test reveal that the all variables in the model are stationary at first difference and satisfy the threshold regression modeling conditions by rejecting the existence of the unit root hypothesis. Furthermore, this study adopted two cointegration tests to verify long run relationship among selected variables. The outcomes are presented in table 6.

**Table 6**

Cointegration Test		LMIE	UMIE
		Statistic	Statistic
Pedroni	Modified Phillips-Perron test	4.79***	6.42***
	Phillips-Perron test	-6.36***	-3.02***
	Augmented Dickey-Fuller test	-7.09***	-2.58***
Kao	ADF	-3.99***	-2.21**

\*\*\*, \*\*, \* shows significance level at 1%, 5% and 10% respectively

The attained outcomes accept the alternative hypothesis of cointegration significantly in LMIE and UMIE panels. Furthermore, the next stage of the analysis involved evaluating the long run elasticities. Therefore, FMOLS & DOLS estimators provided the between-dimension “group mean” and allow for more flexibility in the presence of heterogeneity

problems of the cointegrating vectors. Furthermore, the outcomes of FMOLS models are presented in table 7.

**Table 715: Long-run Equation (FMOLS)**

Panels	LMIE	UMIE	LMIE	UMIE
Variable	FMOLS		DOLS	
ECG	2.04**	2.75***	3.42***	2.52***
ECG <sup>2</sup>	-1.80***	-2.35***	-2.78***	-2.24***
R&D	0.03**	0.03***	0.03***	0.05***
IND	0.01	-0.06***	0.02	-0.04***
TRD	0.02	0.02***	0.01	0.02***

\*\*\*, \*\*, \* shows significance level at 1%, 5% and 10% respectively

The results obtained from the FMOLS model are presented in table 7. The outcome shows that energy cleanability gap (ECG) has significant impact on Economic development (ED) and obtained outcomes depict that 1 unit increase in ECG has to increase ED by 1.82 & 2.59 units in L, LMIE & UMIE panel, respectively. The unclean energy pattern has an encouraging influence on income and employment due to traditional economic structure. Therefore, the current ECG shows a positive spillover impact on income development that benefits private productivity and consumption (Akhter & Rehman, 2022). However, the impact of ECG<sup>2</sup> on ED is significantly negative. Further, empirical outcomes demonstrate that as 1% increase in ECG<sup>2</sup> has to decrease 1.476 & 2.17 ED in LMIE & UMIE panel, respectively. The ECG<sup>2</sup> has a negative spillover impact on health from non clean energy based economic activity that reduces aggregate economic outcomes through global feedback effect (Sasmaz et al., 2020). The plots are showing an in-depth analysis for quadratic effect of ECG on ED using panel GMM and panel FMOLS and DOLS in comparison to the post regression graph.

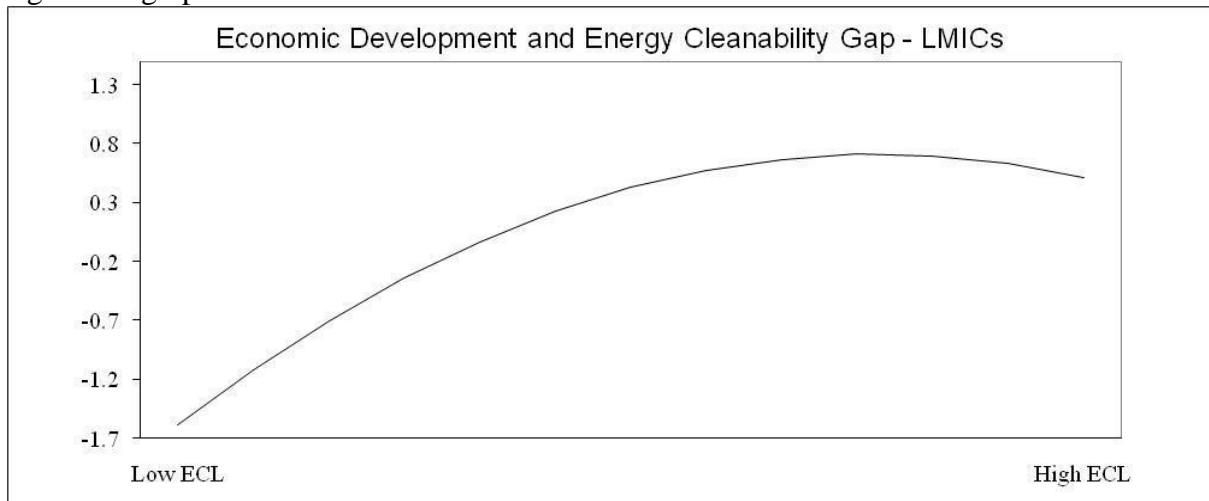


Figure 1: Quadratic Effect of Energy Cleanability on Economic development

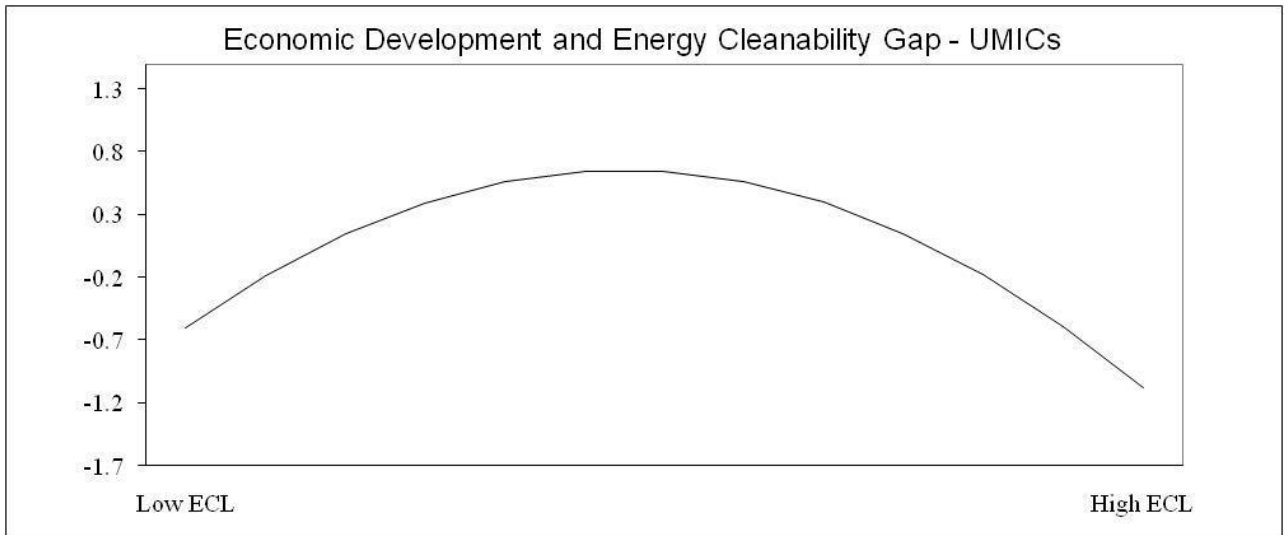


Figure 2: Quadratic Effect of Energy Cleanability on Economic development

The 3D plots of GMM provide each combination. The 1<sup>st</sup> Graph shows the comparison in four panel estimation relationships. Here, it can be observed that an increase in ECG gap has a quadratic effect on ED in LMIE, UMIE panels. But in the case of ECG squares it turns down its effect, which makes an inverted U-shape curve. The graph after post estimation from FMOLS and DOLS depicts the same curve which is further robustness check of GMM plots except LICs panel.

Furthermore, the development expenditure (R&D) has also a significant impact on ED in UMIE. The findings show that 1% increases in R&D increases 0.02% ED in UMIE. R&D is helping to decrease resource depletion and promoting more sustainable practices as well as paving the way to sustainable development. Hence, R&D appears with positive benefits as it has several benefits including resources savings, higher standards of living, wider access to goods and services at lower costs as well as offering new income streams. However, the R&D has no impact on ED in LMIE because in this panel R&D is relatively low, it is crucial to speed up economic development and social values (Akhter & Rehman, 2022). Furthermore, industrialization (IND) has a significant impact on ED in UMIE. Further, 1% percent increase in IND has decreased 0.06% ED in UMIE. Therefore, a higher rate of industrialization has increased the demand of unclean energy and has a significant impact on health (Hou et al., 2021). Finally, the trade liberalization (TRD) has a significant impact: 1% increase in TRD has increased ED by 0.02 units in UMIE. Therefore, due to TRD, domestic firms can also increase their impact on ED. However, compared to the UMIE industrial activities and ED, are more than the impact in LMIE. This suggests that TRD due to technology competence has not played an important role in LMIE (Redmond & Nasir, 2020).

## Conclusion

This paper has investigated the empirical evidence of the link between unclean energy and economic development: using data from 73 LMIE & UMIE, for the period of 2002-19. HDI and percentage of population depending on unclean energy with control variables like (development & research expenditure are used for the analyses. For this purpose, we have utilized the panel unit roots tests, panel cointegration and FMOLS. The robustness of the results at each stage of the analyses was tested by utilizing DOLS. Furthermore, estimated outcomes indicate that the quadratic effect of ECI has a statistically significant impact on economic development with negative sign in the both selected panels. An increase in the ECI would have negative impact on economic development. The long run dynamics in the proposed model imitates a significantly quadratic effect of ECG on ED in all panels. Result demonstrates that R&D has a significantly positive impact on ED in UMIE. According to

results, IND has significantly positive impact on ED in LICs but negative impact in UMIE panels.

### **Limitations**

The data of ED, ECG, R&D, IND and TRD to of latest years are missing. These results are estimated with just FMOLS and DOLS econometric techniques. This study considers two income based panels of 73 economies.

### **Suggestion**

Further research can be extended by applying last year's data of energy cleanability, development and research expenditure, industrial value addition and trade liberalization to this model. The empirical analysis can be improved by using the latest techniques such as AMG, CS-ARDL or DCCE estimation techniques. The analysis can be made on different regions and different economies.

### **Recommendation**

The imminent of this study can offer the following important recommendations. The economies should adopt more effective policy towards energy cleanability with the context of SDGs-2030 to improve the impact on economic development. The development expenditure has a constructive impact on economic development in LMIE, UMIE and HICs, so it requires more attention. The industrial sector in UMIE and HICs had shown destructive impact on Economic development and it should be rearranged. Lastly, pursuing trade liberalization in LMIE, UMIE and HICs showed a constructive role in Economic development and it requires it to be optimized.

### **References**

- Akhtar, J. (2020). “ *The Environmental Kuznets curve : Segregating the Economic Growth into Production Function inputs in G-7 Countries* ”: *An Econometrics Analysis by Javed Akhtar*.
- Akhtar, M. J. (2020). “ *The Environmental Kuznets curve : Segregating the Economic Growth into Production Function inputs in G-7 Countries* ”: *An Econometrics Analysis*. November, 9–23.
- Akhter, M. J., & Rehman, H. (2022). *The Multidimensional Assessment of Sustainable Energy Poverty and its Impact on Economic Development*. 14(14), 1–17.  
<https://doi.org/10.5311/JBE.2022.27.6>
- Behera, C. (2021). *Economic Globalization and Financial Development : Empirical Evidence from India and Sri Lanka*. 8(5), 11–19. <https://doi.org/10.13106/jafeb.2021.vol8.no5.0011>
- Behera, C., Mishra, B. R., Priyadarshini, B. T., & Satpathy, L. D. (2020). Institutional quality and foreign direct investment inflows: Evidence from cross-country data with policy implication. *International Journal of Economics and Business Administration*.  
<https://doi.org/10.35808/ijeba/463>
- Che, X., Zhu, B., & Wang, P. (2021). Assessing global energy poverty: An integrated approach. *Energy Policy*, 149. <https://doi.org/10.1016/j.enpol.2020.112099>
- Council, S. (2022). *Review by the Economic and Social Council of subsidiary bodies \**. 13(13).  
[en.wikipedia.org](https://en.wikipedia.org). (2019). *TOPSIS method*. Wikipedia.Org.
- Garba, I., & Bellingham, R. (2021). Energy poverty: Estimating the impact of solid cooking



fuels on GDP per capita in developing countries - Case of sub-Saharan Africa. *Energy*, 221, 119770. <https://doi.org/10.1016/j.energy.2021.119770>

Hou, N., Zhu, Q., Yang, J., Zhang, D., Liu, W., & Chang, H. (2021). The impact of environmental governance on the development of fishery economy—The intermediary role of technological innovation. *Sustainability (Switzerland)*. <https://doi.org/10.3390/su132011378>

Levin, A., Lin, C. F., & Chu, C. S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics*, 108(1), 1–24. [https://doi.org/10.1016/S0304-4076\(01\)00098-7](https://doi.org/10.1016/S0304-4076(01)00098-7)

Li, P., Akhter, M. J., & Aljarba, A. (2022). *G-20 economies and their environmental commitments : Fresh analysis based on energy consumption and economic growth*. November, 1–11. <https://doi.org/10.3389/fenvs.2022.983136>

Munten, P., Vanhamme, J., Maon, F., Swaen, V., & Lindgreen, A. (2021). Addressing tensions in coepetition for sustainable innovation: Insights from the automotive industry. *Journal of Business Research*. <https://doi.org/10.1016/j.jbusres.2021.07.020>

OECD. (2019). Work on Environment. *Environment*.

Redmond, T., & Nasir, M. A. (2020). Role of natural resource abundance, international trade and financial development in the economic development of selected countries. *Resources Policy*. <https://doi.org/10.1016/j.resourpol.2020.101591>

Resolution Adopted by the General Assembly on 25 September 2015. (2019). In *Sustainable Development Goals*. <https://doi.org/10.1002/9781119541851.app1>

Sasmaz, M. U., Sakar, E., Yayla, Y. E., & Akkucuk, U. (2020). The relationship between renewable energy and human development in OECD countries: A panel data analysis. *Sustainability (Switzerland)*. <https://doi.org/10.3390/SU12187450>

UNDP and University of Oxford. (2021). Peoples’ Climate Vote. *United Nations Development Programme*.

Wiredu, J., Nketiah, E., & Adjei, M. (2020). The Relationship between Trade Openness, Foreign Direct Investment and Economic Growth in West Africa: Static Panel Data Model. *Journal of Human Resource and Sustainability Studies*. <https://doi.org/10.4236/jhrss.2020.81002>

Yao, X., Yasmeen, R., Haq Padda, I. U., Hassan Shah, W. U., & Kamal, M. A. (2020). Inequalities by energy sources: An assessment of environmental quality. *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0230503>

## Factors Affecting Livestock Farmer's Access to Formal Credit in Central Punjab

Ifra Khalid

University of Veterinary and Animal Sciences, Lahore

Raheel Safdar

University of Veterinary and Animal Sciences, Lahore

### Abstract

In developing countries, agriculture credit is considered an important component in enhancing farming output. It help needy farmers to maintain their consumption of basic commodities, purchase modern technologies, and increase their revenues. The purpose of this study is to investigate demographic and socio economic factors affecting livestock farmer's access to formal credit in central Punjab. In this study, we used cross-sectional data and sample data was collected from 300 livestock farmers from different villages in the central Punjab. The data for this investigation was analysed using multiple regression analysis in STATA The results of the regression analysis revealed that education and scale of business were positively and significantly associated with access to formal credit, whereas lack of collateral security, a high interest rate, and lack of awareness were negatively and significantly associated with access to credit. The findings of this study may help policy makers and formal credit providers in shaping their policies and credit processes. Furthermore, government should set up and carry out policies that would enable farmers who have lack of collateral in receiving bank loans.

This study is the first that provide the results of demographic and socio-economic factors affecting livestock farmers' access to formal credit in Central Punjab, Pakistan.

**Keywords:** Credit, hurdles, informal credit, formal credit, factors, small farmer

### Introduction

Agriculture sector is backbone of economic development for many developing countries as it supplies raw material for industrialization. Moreover, it plays a critical role in reducing poverty and hunger in developing economies by creating jobs, ensuring food security, and contributes to a country's gross domestic product (GDP) (Chandio, Yuansheng, Sahito, & Larik, 2016). Pakistan's economy is largely rural and agriculture-based, as approximately 60% of its population live in rural areas which engaged in agricultural activities (Khan *et al.* 2020). Over time, Pakistan's livestock sector has grown to become the largest agricultural sub sector. The contribution of the livestock sector Pakistan's GDP is 14.04 percent in 2022 and its share of Pakistan's agricultural GDP is 61.89 percent, which is the largest share of agriculture in Pakistan (Economic Survey 2022).

In majority of the developing nations agricultural farming is done by the small scale farmers (Omolade and Adepoju 2019). And these small farmers face numerous challenges while doing agriculture farming, including low labour productivity, low earnings, and credit constraints, all of which have a negative impact on agricultural farm output (Lakhan *et al.* 2020). Agriculture credit is considered a crucial component for buying new technologies and farm inputs that enhance farm output (Kiros and Meshesha 2022). Agricultural credit significantly boost farmers' income and well-being by increasing farm productivity (Lakhan *et al.* 2020). While very few farmers in developing nations have access to the institutional financial sectors (Kiros and Meshesha 2022). Recently, governments of developing nations are increasingly focusing on the policies of providing cheaper credit to the agricultural sector through financial intermediaries. The low-cost of formal credit would reduce reliance on rural

moneylenders and it is one of the tools for breaking the cycle of poverty in developing countries (Bose 1998; Nouman *et al.* 2013; Rizwan *et al.* 2019).

The livestock sector in Pakistan consists largely of small farmers who suffer from lower productivity and lack of resources to invest into modern livestock practices (Ayyub and Safdar 2021). While, there is a need to increase the farm productivity in the livestock sector due to the country's increasing population and urbanization. New technology and capital are required to increase farm productivity (Ahmad *et al.* 2022). The requirement of new technologies tends to raise farmers' demand for finance (Zuberi 1989). Farmers' better access to finance reduce capital and liquidity constraints (Alhassan *et al.* 2020), and enable them to expand farm activities by new investment. Therefore, agricultural financing is an important aspect of the rural agricultural development process of Pakistan (Abedullah, Khalid, & Kouser, 2009). Farmer's poor access to credit is a significant hurdle in farm growth (Zuberi 1989).

In Pakistan, farmers obtain credit from both institutional (Banks, NGOs) and non-institutional (friends, relatives, private money lenders Arthi/Gawala) financial sectors (Chandio, Jiang, Wei, Rehman, & Liu, 2017). The poor and landless small farmers often lack access to formal credit resources, so they depend on informal credit (Sossou *et al.* 2014). Informal credit may not be as beneficial to development as formal credit because it is costly, short-term, and mostly used for consumption purposes (Khandker and Faruquee 2003). Existing literature suggest that rural farmers of Pakistan, are facing many constraints in obtaining formal agriculture credit (Akram and Hussain 2008; Ibrahim 2021). Collateral is one of the major constraints when they accessing formal credit (Akram and Hussain 2008). Farmer's poor access to credit is a significant hurdle in farm growth (Zuberi 1989). Thus, due to the lack of access to formal credit is hindering farmer's ability to invest in modern livestock practices and resultantly farmers are in a vicious cycle of lower productivity/profitability.

There are a number of demographic and socio-economic factors that can influence access to formal credit, including a farmer's age, gender, education, scale of business collateral demand, awareness, and interest rate (Nouman *et al.* 2013). Previous studies ( Chandio *et al.* 2020; Ijoma and Osondu 2015; Oboh and Kushwaha 2009; Saqib *et al.* 2018), have mainly focused on crop farmers, in that they studied the factors that affect crop farmer's access to formal credit, and they provide little guidance about factors affecting farmer's of livestock sector access to formal credit. The livestock sector contributes significantly to national income and it is the largest sub-sector of agriculture. The financing needs of livestock farmers differ from those of crop farmers, and there is a need to comprehensively investigate factors affecting farmers' access to formal credit in Pakistan. Therefore, the aim of this study is to investigate the factors affecting livestock farmer's access to formal credit in central Punjab. There have been several investigations conducted about the factors of crops farmers that influence access to formal credit (Chanio *et al.* 2020; Ibrahim 2021; Julien *et al.* 2021; Ullah *et al.* 2020; Darfor *et al.* 2021; Lemessa and Gemechu 2016; Oboh and Kushwaha 2009; Samuel and Asana 2021; Saqib *et al.* 2018). Other studies have examined formal credit constraints (Akram and Hussain 2008; Sekyi *et al.* 2017; Lakhan *et al.* 2020 ).

## **Literature Review**

### **Rural Credit**

#### **Definitions and concept**

Credit is derived from the Latin *credito* and denotes faith. This is a deal whereby anything of value—such as products, work, or money—is provided in return for the promise to make a payment at a later time. In a credit dealing, one party, known as the supplier or lender, gives something to the other, who is known as the borrower, in exchange for an agreement of future payment (yehuala 2008). According to Ellis (1992), credit is a quantity of cash that is granted

to the party that will be responsible for repaying it. There are two parties involved in credit provision: a lender and a debtor. (Sekyi *et al.* 2017), defined cash-based credit is the kind that farmers obtain from reputable financial institutions and other moneylenders, while non-cash credit is the kind that farmers obtain in the form of inputs that are typically provided by individual business owners or entrepreneurs. For this credit, the repayment is made after cultivation. Moreover, Julien (2021), stated that credit is a money booster that enhances an individual's ability to invest.

According to (Mohieldin and Wright 2000), in developing nations, there is usually a pair of rural financial markets that are composed of an institutional and a non-institutional credit market. Institutions in the institutional credit markets act as a mediator between savers and lenders and offer generally low interest rates, which are sometimes subsidised by the government. (Adams and D.W 1984), stated that the belief that native or non institutional lenders, like sellers, landlords, and businesspersons, benefit small farmers by charging them high interest rates, was one of the driving forces behind the establishment of institutional credit institutions in agriculturally based developing economies some 40 years ago. According to (Manig 1996), non-institutional credit was primarily important for industries that were not immediately productive but were used to pay for social responsibilities. Institutions in the institutional credit markets act as a mediator between savers and lenders and offer generally low interest rates, which are sometimes subsidised by the government. Non-institutional credit Cash is lent in unregulated credit markets by private individuals, professional dealers, commission-based salespeople, landowner, and companion and family (Mohieldin and Wright 2000). According to (Amjad and Hasnu 2007), The time period and size of the credit, its usage, the cost of credit, and the processing fees are all factors that differentiate both institutional and non institutional sources of financing from one another.

#### **Agricultural credit markets in Pakistan**

There are two types of agricultural credit markets in Pakistan: institutional and non-institutional (Khandker & Faruqee, 2003; Jan et al 2012; Chandio, Jiang, Wei, Rehman, & Liu, 2017). Both institutional and non-institutional credit markets perform a significant function in Pakistan's rural lending sector (Saqib *et al.*, 2018). More than ninety percent of small farmers of Pakistan get financing from informal sources (Amjad and Hasnu 2007). Governments in developing nations, like Pakistan, have promoted agricultural growth by enacting a variety of programmes to help rural people access productive resources. Agricultural financing, as a result of these repercussions, is critical in fostering the growth of small farmers. In Pakistan's rural areas, the majority of farmers own tiny farm holdings. Due to a lack of finance and restricted access to formal agricultural loans from official sources, many farmers do not adopt advanced agricultural technologies on their farms (Chandio *et al.* 2020). Moreover (Khandker & Faruqee, 2003) stated that in order to support agriculture's economic growth, a formal credit institution was set up in Pakistan's rural areas. Commercial banks and institutional organisations give agricultural loans for various purposes to meet the needs of rural communities in Pakistan's rural areas. According to (Chandio *et al.* 2018), many initiatives have been undertaken by governments over the last few decades to enhance the availability of loan to farmers. Institutional credit markets include different banks. (ZTBL), commercial banks, domestic private banks, cooperative Banks, and (KBL) are the primary providers of institutional agricultural financing in Pakistan. The State Bank of Pakistan supervises these institutional credit providers. In Pakistan, the need for agricultural financing has been rising for several years. In 1951, the ZTBL was set up.

#### **Empirical studies on determinants of access to credit**

Credit availability is viewed as a crucial tool for escaping the "vicious cycle" of low earnings, poor savings, and poor productivity (Yehuala 2008). According to (Saqib et al., 2018),

credit's has positive relationship to agricultural production, as well as it is path which increase agricultre growth. According to (Nimoh, Kwasi, & Tham-Agyekum, 2011; Oboh & Kushwaha, 2009) credit improves technology adoption, which boosts efficiency and production improvement. (Ullah, Mahmood, Zeb, & Kächele, 2020), found that access to formal agricultural finance encourage farmers to invest in farm inputs in order to achieve sustainable productivity and food security.

According to (Muhongayire 2012), access to credit is commonly seen as a necessary input for increasing agricultural productivity, particularly land and labour productivity, increasing food output and income levels, promoting employment, and therefore alleviating poverty. Because smallholder farmers have little financial resources, they are unable to utilise new agricultural methods. Credit may enable people to earn more money and raise their living standards. (Ullah *et al.* 2020), stated that Pakistan's farmers lack fundamental resources (including land and money), making it impossible for them to invest in advanced agricultural technology. Access to formal credit might encourage farmers to spend money on agricultural inputs in order to achieve sustainable productivity and ensure food production.

Using survey data of 90 rice farmers in Sindh, Pakistan, studied the factors of credit demand in Pakistan. This research revealed that Education, agricultural experience, landholding size, road access, and extension contact were shown to be positive and significant factors influencing the need for formal credit (Chandio *et al.*, 2020). Individuals with a high education level are more aware of credit facilities, and education has a positive impact on the use of these financial institutions (Saqib *et al.* 2018). (Lazaro and Alexis 2021; Saqib *et al.*, 2018; Campero and Kaiser 2013; Chandio *et al.* 2020; Saqib *et al.* 2018) found that the participants' schooling levels had a significant and beneficial impact on rural agricultural farmers access to formal credit. Individuals who have higher levels of education are more likely to know the credit procedures and credit institutions, so they have easy access to finance. So, we hypothesise that:

**H1: Education is positively associated with livestock farmer's access to formal credit in Pakistan.**

Farmers who are older and have more knowledge and experience would be associated with societies and other official lending institutions better (Yehuala 2008). According to (Campero and Kaiser 2013; Oboh and Kushwaha 2009; Yehuala 2008), age has a positive and significant effect on access to the credit market. So, we hypothesize that:

**H2: Age is positively associated with livestock farmer's access to formal credit in Pakistan.**

Size of landholding has a considerable favourable influence on farmers' access to financing, according (Mwonge & Naho, 2021). According to (Campero and Kaiser 2013; Chandio *et al.* 2020; Oboh and Kushwaha 2009; Samuel and Asana 2021; Saqib *et al.* 2018), the scale of business and form size have a positive and significant effect on access to the credit market. This variable has been measured by the number of large animals and it has positively associated with access to formal credit. So, we hypothesise that:

**H3: Scale of business is positively associated with livestock farmer's access to formal credit in Pakistan.**

In both developed and developing nations, most formal lenders need tangible collateral, such as land. Collateral alternatives are frequently used by informal lenders. In informal contracts, third-party assurances, connected contracts, and the prospect of losing future credit are typical tactics (Zeller, 1994). The personal property or commodities that a borrower delivers to a lender as a guarantee of credit are known as collateral. If the borrower fails to pay the amount of credit, the asset is forfeited ('bank rate'). Farmers in Pakistan are unable to benefit from credit programmes due to the lack of collateral, and the size of the land they own is regarded as a marker of their socio-economic rank in the community. The Agricultural

Development Bank of Pakistan's regulations specify that submitting land ownership proof is required for credit clearance (Saqib et al., 2018). Only 6.5 percent of small farmers have access to borrow from banks. The primary hurdles to small and landless farmers acquiring financing are lengthy bank processes & security conditions (Ullah et al., 2020). According to Ray (1998), the requirement of collateral is not an issue for the non-institutional credit market. The non-institutional credit sector is ready to accept labour, small amounts of land, or even grown crops as collateral. This level of cooperation in the non-institutional sector can address the issue of information asymmetry. (Chandio *et al.* 2017; Ullah *et al.*, 2020) found that collateral availability has a positive and significant effect on access to credit. According to (Mwonge & Naho, 2021), Collateral is a hindrance to agriculture loan demand. It has been discovered to have a negative association with credit. So, we hypothesize that

**H4: Lack of Collateral is negatively associated with livestock farmer's access to formal credit in Pakistan.**

According to (Keynes 1936), the interest rate, which affects investment, is a factor in access to credit. Borrowing has an inverse relationship with interest rates. This means that as interest rates rise, borrowing will decline. This is because the prospect of profiting from investment is relatively low because when interest rates are high, it diminishes capital's marginal efficiency (S. S. Ibrahim & Aliero, 2012). Financial institutions are impacted by the credit market's uncertainty as a result of asymmetric information. In order to account for this uncertainty, creditors that face this problem boost interest rates. Bad customers are less reactive to credit rates than good customers. Thus, good customers are rationed (Stiglitz and Weiss 1983). Small - scale farmers' chances of obtaining agricultural financing are reduced by credit schemes with higher interest rates. (Anang & Kabore, 2021) found that because of the high interest rate charge by banks, farmers were unable to obtain financing. So, we hypothesize that

**H5: High interest rate negatively associated with livestock farmer's access to formal credit in Pakistan**

According to (Claessens 2006), institutional credit accessibility or supply hurdles include particular limits of banking firms as well as barriers coming from the wider organisational environment, which might include a poor legal framework, a lack of information from credit institutions, and a lack of competition in the financial system. . According to (Campero and Kaiser 2013), a crucial component of credit is knowledge about credit institutions, whether formal or informal. People cannot decide to apply for a loan at a place they are unfamiliar with it. According to (Ullah et al., 2020), farmers who received agricultural awareness and extension services are more likely to obtain agricultural financing than those who did not. (Ullah et al., 2020; Campero and Kaiser, 2013) found that awareness of credit institutions has a positive and significant effect on access to credit. (Mwonge & Naho, 2021) found the there is a positive relationship between awareness and access to finance, indicating that small-scale farmers' awareness boosts their chances of having a loan. Small-scale farmers that are well aware of the availability of credit facilities, loan types, processes, and criteria are more likely to get agricultural loans. So, we hypothesise that

**H6: Awareness is positively associated with livestock farmer's access to formal credit in Pakistan.**



### Conceptual Framework

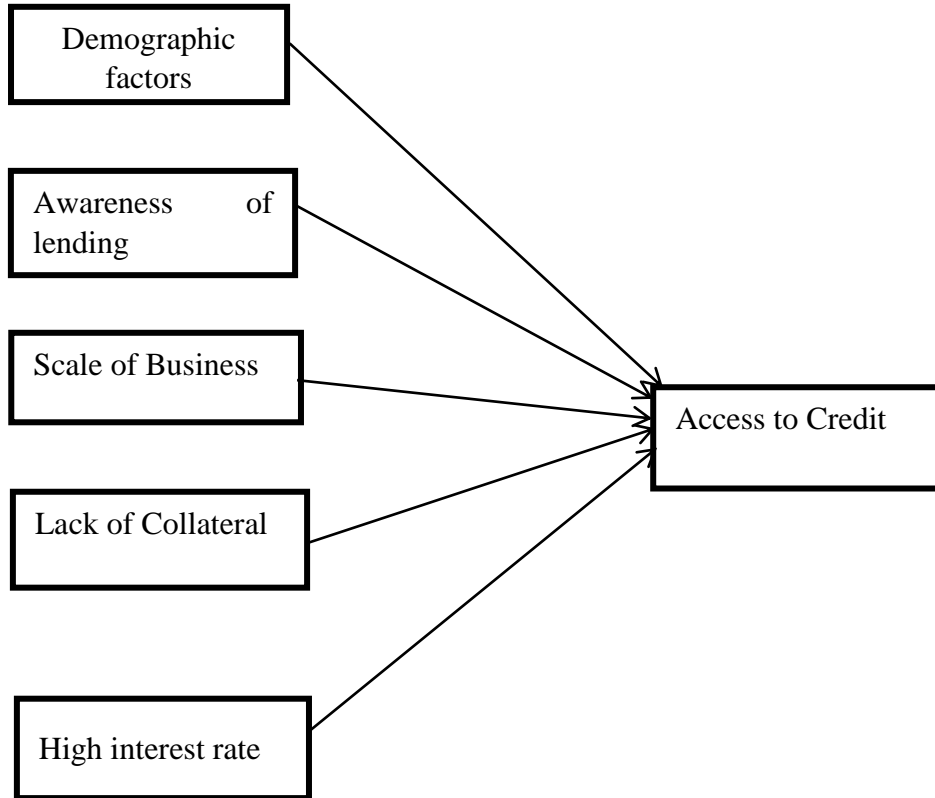


Figure 2.1 Conceptual Framework



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Methodology

### Sample Distribution and Data collection

This study was based on quantitative data and primary information collected directly from the respondents through survey methods. The population of the study was livestock farmers. Sample data was collected with the help of questionnaires from different villages in the central Punjab. Sample size was 300 livestock farmers. The questionnaire was converted from English to Urdu because data was collected from different villages and most of the village farmers are illiterate. For the easiness of farmers, the questionnaire was converted into Urdu. The data was winsorized at 1 percent. The data was distributed through livestock hospitals in various villages. Respondents were informed about the purpose of the research via a cover letter. The data of livestock farmers in this study is chosen through a purposive sampling technique. Data was collected from the district of Sheikhpura because I had access to livestock hospitals. Sheikhpura is located in central Punjab, so it is a good representative of the population.

### Data Analysis techniques

Data in this study were analysed using Multiple Regression analysis. Stata software was used in this study. Descriptive statistics, such as frequency distribution, mean, standard deviation, tables and percentage were used to analyze data. Regression analysis were find the determinants of livestock farmers access to formal credit.

The empirical model is given by Eq (1)

$$Y = \beta_0 + \beta_1 \text{EDU} + \beta_2 \text{AGE} + \beta_3 \text{SOB} + \beta_4 \text{Awareness} + \beta_5 \text{LOC} + \beta_6 \text{HIR} + \epsilon_i \quad (1)$$

Where Y is defined as earlier,  $\beta_1$ ;  $\beta_2$ ;  $\beta_3$ ;  $\beta_4$ ;  $\beta_5$ ;  $\beta_6$  are the explanatory variables including age, gender, year of education, Scale of business, lack of awareness, lack of collateral, and high cost of credit.

### Definition and measurement of the Variables

#### Dependent variable

In this study, the dependent variable is the livestock farmers' access to formal credit. Access to formal credit has been measured by the amount of credit farmers borrow from banks. For the robustness analysis, the amount of credit has been measured by the log of the credit borrowed from banks.

#### Age of the farmer

Age of the farmer is a demographic factor. It is a continuous variable. The age of the farmer has been defined by the years. This is an independent variable. . It is a

#### Education level

This dependent variable is a continuous variable. Education level has been measured by the year of schooling of the livestock farmers. Education of the farmer is a demographic factor.s

#### Scale of business

Scale of business is the dependent variable. Scale of business has been measured by the number of large animal. It is a continuous variable.

#### Collateral Security

Collateral security is the dependent variable. Bank demand collateral when farmers borrow from banks. It is an ordinal variable. It has been measured by the likert scale.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### High interest rate

High interest rate is the dependent variable. Interest rate is the cost of credit charge by the banks. This is an ordinal variable. It has been measured by the likert scale.

### Awareness of credit institutions

Awareness of credit institutions is the dependent variable. This is an ordinal variable. It has been measured by the likert scale.

## Results

### Descriptive Statistics

**Table No 4.1 Descriptive Statistics**

Variable	Mean	Standard Deviation	Mini	Maxi
Amount Borrowed (/1000)	149.65	217.25	0	1000
Age	45.15	11.391	21	75
Education	4.643	4.092	0	14
Number of large animals	10	9.929	0	85
Collateral hurdle	1.13	0.994	-2	2
Interest rate hurdle	1.41	0.768	-1	2
Awareness hurdle	0.916	0.979	-2	2
Lengthy process hurdle	0.966	0.678	-1	2
Documentation hurdle	1.146	0.821	-1	2
Non cooperation hurdle	0.713	1.033	-2	2

Source(s): Field survey data (2022)

Note: Factors including ( collateral, interest rate, awareness, lengthy process, doc complexity, and non-cooperation of bank staff are hurdles) that have been measured using likert scale (Strongly agree= 2, Agree= 1, Neutral= 0, Disagree= -1, Strongly Disagree= -2)

In Table 4.1, the descriptive statistics of the variables are shown, which define the mean, standard deviation, maximum, and minimum values of the dependent and independent variables. There are total of 300 farmer's responses. The mean value of the amount of credit borrowed is 149.05 thousand, and its standard deviation is 217.25 thousand. The maximum amount of credit farmers have borrowed from banks is 1 million and the minimum amount is 0. The average age of the livestock farmers is about 45 years.

The mean value of education is 4.64 which means that most of livestock farmers year of schooling below the primary school level. The mean value 9 of the scale of business means that most of the farmers have hold 9 large animals in this study area. The means value of collateral hurdle is 1.13 means that farmers of this study area agreed that lack of collateral is a hurdle to accessing formal credit. Moreover, high Interest rate hurdle mean value is 1.41. This indicates that farmers agreed that high interest rates charged by formal credit sectors is a hurdle to accessing formal credit. In the study area, we find that mean value of lack of awareness is 0.91 and standard deviation is 0.97. In the study area, we find that mean value of lack of awareness is 0.91 and standard deviation is 0.97. The minimum value of lack of awareness hurdle is -2 and the maximum value is 2.

### **Correlation Matrix**

Table 4.1 shows the results of the correlation analysis among the variables used in our analysis. Correlation examines associations, it compare the connections between any two measurable concepts (Hung *et al.* 2017). The age of the farmer's is positively and insignificantly correlated with access to the formal credit (0.08). The education of the farmer is positively but insignificantly correlated with access to formal credit (0.06).

The scale of business is positively and significant correlated with access to formal credit (0.39\*\*\*). This support our third hypothesis that shows farmers who have more livestock and a large scale of business have more access to formal credit. Large scale of business farmers may need credit for their farm enhancement and for input needs.

Moreover, lack of collateral and access to formal credit is negatively and significant correlated with access to the formal credit (-0.26\*\*\*). This support our fourth hypothesis. Banks demand collateral security before providing credit. This suggests that farmers believe that because of the lack of collateral they have less access to formal credit. The correlation result of the high interest rate of credit and access to formal credit is negative and significant (-0.19\*\*\*). It supports our fifth hypothesis. Negative sign indicates that farmers believe due to the high interest of the bank credit they have less access to the formal credit.

The lack of awareness is negative and significantly correlated with access to formal credit (-0.29\*\*\*). It supports our sixth hypothesis that shows farmers who have lack of awareness of lending institutions have less access to formal credit. According to the correlation findings, lengthy process of obtaining credit has been positively and significantly correlated with access to credit (0.14\*\*\*).

**Table 4.2 Correlation Analysis**

NO	Variables	1	2	3	4	5	6	7	8	9	10
1	Amount Borrowed	1									
2	Age	0.08	1								
3	Education	0.06	-0.20** *	1							
4	Number of large animals	0.39***	-0.00	0.03	1						
5	Collateral hurdle	-0.26***	-0.09*	0.08	-0.17** *	1					
6	Interest rate hurdle	-0.19***	-0.07	0.03	-0.10**	0.17** *	1				
7	Awareness hurdle	-0.29***	-0.02	-0.05	-0.14** *	0.22** *	0.16** *	1			
8	Lengthy process hurdle	0.14***	0.06	0.01	0.04	0.02	0.07	-0.06	1		
9	Documentation hurdle	0.05	0.07	0.10*	-0.04	0.07	0.11**	0.044	0.26** *	1	
10	Non cooperation	0.07	0.03	-0.02	0.03	0.13**	0.08	0.22** *	0.06	0.16** *	1

Not  
e:  
The

significance levels at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \*, respectively.



**Multivariate Regression Analysis:**

The results of multiple regression analysis are reported in table 4.3. The model estimations are performed using the OLS method with robust standard error. To test all the hypothesis, we ran the simple linear regression analysis between the dependent and independent variables. There are 300 observations in all. R squared expresses how much variation in explanatory variables influenced the dependent variable. The greater the R-square, the more accurate the model (Chicco et al. 2021). The value of the coefficient of determination R squared is 0.29, shows that about 29% variation of explanatory variables influenced the dependent variable which denotes how well the model fits the data.

**Table 4.3** Results of multiple regression analysis of factors affecting farmer’s access to formal credit

Dependent Variable	Coefficient	t -statistics	P-value
Amount Borrowed			
Age	1.05	1.03	0.30
Education	3.56	1.17	0.24
Number of large animals	6.71***	2.87	0.00
Collateral hurdle	-35.97***	-2.92	0.00
Interest rate hurdle	-33.09**	-2.1	0.03
Awareness hurdle	-46.68***	-3.75	0
Lengthy process hurdle	33.33*	1.63	0.10
Documentation hurdle	10.03	0.7	0.48
Non-cooperation hurdle	27.59***	2.57	0.01
Intercept	85.02	1.44	0.15
Number of obs	300		
F (9, 290)	10.5		
Prob > F	0.00		
R-Squared	0.29		

Note: The significance levels at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \*, respectively.

The coefficient of education level of the farmers is insignificant and positively ( $\beta= 1.05$ ) associated with access to the formal credit. The positive sign suggests that farmers who are educated they have more access to formal credit. This is may be due to the fact that educated farmers may familiar with lending institutions' credit procedure. The coefficient of age is positively and insignificantly ( $\beta= 3.56$ ) associated with access to formal credit. The positive sign means that older farmers have more access to formal credit. This is may be because the farmers who are older and have greater livestock farming experience are aware of the credit use.

The coefficient of scale of business has a positively and significantly ( $\beta= 6.71$ ) associated with access to formal credit. This result suggests that large-scale business owners have more access to formal credit as compared to small-scale farmers. This support our third hypothesis. This finding





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

was as expected since the larger scale of business signifies ownership of a valuable asset. This can be because of the fact that farmers who have a large scale of business need more money for their farm enhancement. This result supports our third hypothesis. This finding is similar to the findings of previous studies (Chandio et al. 2020; Saqib et al. 2018).

Moreover, the coefficient of lack of collateral is negatively and significantly ( $\beta = -35.97$ ) associated with access to the formal credit. This means that farmers who have less collateral have less access to formal credit. This indicates that farmers believe that the demand of collateral by banks is a hurdle, which has limited their access to bank loans. This finding supports our fourth hypothesis.

The coefficient of the high interest rate of credit is negatively and insignificantly ( $\beta = -33.09$ ) associated with access to the formal credit. Due to the high cost of credit, farmers have less access to formal credit. This may be because the high cost of credit can discourage farmers' desire to borrow from banks. This finding supports our fifth hypothesis.

The coefficient of the lack of awareness of lending institutions and access to formal credit is negatively and significantly ( $\beta = -46.08$ ) associated with access to formal credit. This means that farmers who have a lack of awareness of formal credit institutions have less access to formal credit. This may be because farmers who have lack of awareness of lending institutions and they unaware of the availability of credit services, credit procedures, and conditions of formal agriculture credit result they borrow less from formal credit institutions. This result supports our sixth hypothesis.

The association between lengthy process of obtaining credit and formal credit access is positive and significant ( $\beta = 33.33$ ), which seen in table 4.3. This positive sign can be because of the fact that respondents who have borrowed more credit from banks believe that this credit is available after a lengthy process. The lengthy process of credit is a hurdle. Table 4.3 shows that the regression result of documentation complexity and access to formal credit is positive but insignificant. The coefficient of non-cooperation of the bank staff has a positive and significantly ( $\beta = 27.59$ ) associated with access to credit. The Positive sign can be due the fact that farmers who have borrowed credit from banks they believe that Bank staff do not cooperate when they go to get formal credit. This is a hurdle.

**Table 4.4 Results of multiple regression analysis of factors that influence farmers borrowing from banks.**

Dependent Variable	Coefficient	t-statistics	P-value
Amount Borrowed			
Age	0.77	0.66	0.50
Education	8.42**	2.05	0.04
Number of large animals	13.14***	8.25	0
Collateral hurdle	-32.87**	-2.54	0.01
Interest rate hurdle	-23.16	-1.32	0.18
Awareness hurdle	-9.91	-0.64	0.52
Lengthy process hurdle	14.12	0.59	0.55
Documentation hurdle	-5.13	-0.3	0.76



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Non-cooperation hurdle	10.02	0.78	0.43
Intercept	99.30	1.32	0.18
Number of obs	177		
F (9,167)	15.36		
Prob > F	0.00		
R-Squared	0.42		

Note: The significance levels at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \*, respectively.

Table 4.4 reported the results of OLS regression with sample of the farmers who borrowed from banks. 177 farmers have borrowed from banks out of 300 respondents. The coefficient of age is positive but statistically insignificant.

The coefficient of education is positive and statistically significant at the 5% level of significance. This means that educated have more access to formal credit as compared to the uneducated. This is may be because of educated farmers are better aware about the procedures and conditions required to obtain credit, like filling out the application form, providing guarantor and security, as well as the length of repayment. This finding support our H1. The finding is similar with prior studies. For improved, consistent, and productive output, it is anticipated that the educated majority will be clear enough in their selection, possess strong management skills, and be well-aware of financial institutions (Ijioma and Osondu 2015).

The coefficient of scale of business is positive and highly statistically significant at the 1% level of significance. This shows that farmers who have a greater number of animals and a larger scale of business have more access to formal credit institutions than farmers who have smaller scale of business.

Moreover, The coefficient of lack of collateral is negative and highly statistically significant at 1% level of significance. Due to the lack of collateral, farmers have less access to formal credit. This is may be because of farmers have less access to formal credit because they have inadequate collateral when applying for formal credit. According to the findings of the regression, having a collateral requirement is a significant hurdle to obtaining formal credit. The regression results show that having a collateral demand from banks is a significant hurdle to obtaining formal credit.

The coefficient of high interest rate, lack of awareness, and documentation complexity, are negative but statistically insignificant. The coefficient of lengthy process of bank credit and non cooperative behaviour of bank's staff are positive but statistically insignificant.

### **Robustness testing**

Further, we ran the regression between dependent and independent variables with the same sample data to confirm the validity of our findings. But we changed the measurement of our dependent variable amount borrowed from banks with log of amount borrowed from banks. The results of robustness test are reported in on table 4.5. Scale of business is still positively and significantly related with access to formal credit. Lack of collateral and high interest rate are negatively and significantly related with access to formal credit. These results are similar to our findings, which are present in tables 4.3 and 4.4.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 4.5** Robustness test results

Dependent variable	Coefficient	t-statistics	P-value
Log of amount borrowed			
Age	0.00	1	0.32
Education	0.02	1.43	0.15
Scale of business	0.04***	5.64	0
Collateral hurdle	-0.18***	-3.31	0.00
High interest rate	-0.13**	-1.94	0.05
Awareness hurdle	-0.00	-0.1	0.91
Lengthy process hurdle	0.08	0.97	0.33
Documentation hurdle	0.00	0.07	0.94
Non-Cooperation hurdle	-0.00	-0.06	0.95
Intercept	11.48	33.86	0
No of obs	177		
F(9, 167)	10.80		
Prob > F	0.00		
R-squared	0.35		

Note: The significance levels at the 1%, 5%, and 10% levels are indicated by \*\*\*, \*\*, and \*, respectively.

### Discussion

The results show that education is positively and significantly associated with access to formal credit. Farmers who are highly educated they have more access to formal credit, due to better knowledge of credit markets and facilities, improved expertise and agricultural abilities, and experience with administrative processes. The findings of the research concur with (Amjad and Hasnu 2007). They stated that because of the family heads' educational backgrounds, the family is able to manage the procedures needed to get loans. According to the findings of our study, scale of business is positively and significantly associated with access to formal credit. Due to the increase of large scale of business, access to institutional finance increase. Our results revealed large-scale business farmers borrowing more money from banks. The study's findings are consistent with (Oboh and Kushwaha 2009). They reported a positive relationship between farm size and loan size, meaning that the loan amount rises as the respondent's farm size rises.

According to our findings, lack of collateral is negatively and significantly associated with access to formal credit. Our results reveal that participants completely agreed that requirements for collateral is a big hurdle to getting loans from formal credit institutes. Due to the lack of collateral, they have less access to formal credit. This findings similar to the (Samuel and Asana 2021). They stated the requirement for a bank guarantee is indeed the greatest hurdle most of the farmers faced when getting loans. These small farmers do not have enough land that is provided as collateral when they get bank credit, so this problem limits their access to formal credit.

Our findings show a negative and significant association between the high interest rate and access to formal credit. This finding indicates that the majority of livestock farmers have



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

difficulty obtaining credit due to the high cost of credit. Most respondents agreed that the high cost of credit of banking institutions' loans facilities was the hurdle. This outcome concur with the findings of (Nimoh *et al.* 2013), who found that the high rate of interest on loans restricted the majority of farmers from accessing bank credit.

The results indicate that lack of awareness is negatively significantly associated with farmers access to formal credit. This finding indicates that farmers have less access to formal credit due to lack of awareness about lending institutions. This result is similar with the findings of (Samuel and Asana 2021), who reported a positive relationship between awareness of lending institutions.

### **Conclusion**

This study examined the Determinants of livestock farmers access to formal agricultural credit in Central Punjab. The population of the study was livestock farmers. Sample data was collected with the help of questionnaires from different villages. Data of 300 livestock farmers was collected through purposive sampling technique. The ordinary least squared (OLS) regression was used in this study's data analysis. We applied multiple linear regression analysis to the test hypothesis. The evidence from this study on the basis of regression analysis suggests that scale of business, and education have positive and significant influences on accessing formal credit. Age has positive and insignificant influence on accessing credit. Lack of collateral security and lack of awareness have significant and negative influences on accessing credit. High interest rates has significant and negative influence on access to formal credit. In the outcome of factors affecting farmers' access to agricultural credit from financial institutions in Central Punjab, small-scale livestock farmers have less access to agricultural credit as compared to large-scale livestock farmers. Farmers have less access to formal credit due to the lack of collateral, high cost of credit, and lack of awareness of lending institutions. But collateral demand is the major hurdle farmers face during access to the formal credit.

### **Implication, Contribution, Recommendation, and Limitation,**

Based on this research, it is advised that institutional credit sources reform their strategies and financial mechanisms and change the policy of collateral requirements for smallholder farmers as a result of which small-scale farmers can easily obtain formal loans. This Study contributes in literature related to factors affecting livestock farmer access to credit. The outcomes of this study may help policy makers and formal credit providers in shaping their policies and processes. Formal credit institutions should offer low-interest agricultural loans to small-scale livestock farmers with reasonable and simple terms and conditions. Further more, government should set up and carry out policies that would enable farmers who have lack of collateral in receiving bank loans. This research was limited in the Sheikhpura district of Punjab due to lack of access to other districts of Punjab and time constraint. The limitation of this research point to be addressed in future. The following are some points for future research.

### **Suggestions**

For future research, consider the following ideas.

Data will be collected in future from all districts of Punjab. A Mixed method research design will also be used in future. Some other factors also be use in future which effect farmers access to formal credit.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### Literature Review

Abedullah, N., Khalid, M. and Kouser, S., 2009. The role of agricultural credit in the growth of livestock sector: A case study of Faisalabad. *Pakistan Vet. J*, 29(2), pp.81-84.

Akram, W. and Hussain, Z., 2008. Agricultural credit constraints and borrowing behavior of farmers in rural Punjab. *Eur. J. Sci. Res*, 23(2), pp. 294-304.

Amjad, S. and Hasnu, S.A.F., 2007. Smallholders' access to rural credit: Evidence from Pakistan. *Lhr. J. Econ*, 12(2), pp.1-25.

Ayyub, R. M., Safdar R. 2021. Analyzing Institutional Credit to Livestock Sector in Pakistan. *CAPRIL*.

Besley, T., 1994. How do market failures justify interventions in rural credit markets?. *World Bank Res. Obs*, 9(1), pp.27-47.

Bose, P., 1998. Formal–informal sector interaction in rural credit markets. *J. Dev. Econ*, 56(2), pp.265-280.

Campero, A. and Kaiser, K., 2013. Access to credit: awareness and use of formal and informal credit institutions (No. 2013-07). *Working Papers*.

Chandio, A.A., Jiang, Y., Rehman, A., Twumasi, M.A., Pathan, A.G. and Mohsin, M., 2020. Determinants of demand for credit by smallholder farmers': a farm level analysis based on survey in Sindh, Pakistan. *J. Asian. Bus. Econ. Studi*, 28(3), pp.225-240.

Chandio, A.A., Jiang, Y., Wei, F., & Guangshun, X., 2018. Effects of agricultural credit on wheat productivity of small farms in Sindh, Pakistan: are short-term loans better? *Agric. Finance Rev*, 78(5), pp.592-610

Chandio, A.A., Magsi, H., Rehman, A., & Sahito, J.G.M., 2017. Types, sources and importance of agricultural credits in Pakistan. *J. Appl. Environ. Biol. Sci*, 7(3), pp.144-149.

Chaudhry, M.G., Ahmad, M., Chaudhry, G.M., & Quddus, M.A., 1999. Growth of livestock production in Pakistan: An analysis [with comments]. *Pak. Dev. Rev*, 38(4), pp.605-614.

Chicco, D., Warrens, M.J., & Jurman, G., 2021. The coefficient of determination R-squared is more informative than SMAPE, MAE, MAPE, MSE and RMSE in regression analysis evaluation. *PeerJ Comput. Sci*, 7, e623.

Claessens, S., 2006. Access to financial services: A review of the issues and public policy objectives. *World Bank Res. Obs*, 21(2), pp.207-240.

Das, A., Senapati, M., & John, J., 2009. Impact of agricultural credit on agriculture production: an empirical analysis in India. *RBIOP*, 30(2), pp.75-107.

Diagne, A., 1999. Determinants of household access to and participation in formal and informal credit markets in Malawi. *IFPRI*, pp.1- 64.

Greenwald, D., Associates., 1983. The concise McGraw-Hill Dictionary of Modern. *Book*, pp.1-792

Hung, M., Bounsanga, J., & Voss, M.W., 2017. Interpretation of correlations in clinical research. *Postgrad. Med*, 129(8), pp.902-906.

Ibrahim, D.M., 2021. Effect of Socio-Economic Demographics of Rice Farmers' on Accessing Credit from Financial Institutions in Kano, Nigeria. *AAMBEJ*, 1(1), pp.15-25.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Ijioma, J.C., Osondu, C.K., 2015. Agricultural credit sources and determinants of credit acquisition by farmers in Idemili Local Government Area of Anambra State. *J. Agric. Sci. Technol*, 5(1), pp.34-43.

Jan, I., Munir, S., Usman, A., & Idress, M., 2012. Agricultural credit markets in Northwest Pakistan: Implications for the development policy. *Sarhad J. Agric*, 28(3), pp.521-529.

Keynes, J. M., 1936. The general theory of employment, interest and money. *Book*, 1-190

Khan, N., Fahad, S., Naushad, M., & Faisal, S., 2020. Credit Impact on Agriculture Production in Pakistan. Available at SSRN 3618660, pp.1-33

Khandker, S.R., Faruquee, R.R., 2003. The impact of farm credit in Pakistan. *Agric Econ*, 28(3), pp.197-213.

Kiros, S., & Meshesha, G.B., 2022. Factors affecting farmers' access to formal financial credit in Basona Worana District, North Showa Zone, Amhara Regional State, Ethiopia. *Cogent Econ. Finance*, 10(1), pp.1-22.

Lakhan, G.R., Channa. S.A., Magsi, H., Koondher, M.A., Wang, J., & Channa, N. A., 2020. Credit constraints and rural farmers' welfare in an agrarian economy. *Heliyon*, 6(10), e05252.

Lemessa, A., & Gemechu, A., 2016. Analysis of factors affecting smallholder farmers' access to formal credit in Jibat District, West Shoa Zone, Ethiopia. *Int. j. Afr. Asian stud*, 25, pp.43-53.

Manig, W., 1996. The importance of the informal financial market for rural development financing in developing countries: The example of Pakistan. *Pak. Dev. Rev*, 35(3), pp.229-239.

Mitra, S., Prodhan, M., & Haque, M., 2018. Factors determining credit access of tomato farmers in a selected area of Bangladesh. *Int. j. multidiscip. res. Dev*, 3(1), pp.406-410.

Mohieldin, M.S., & Wright, P.W., 2000. Formal and informal credit markets in Egypt. *EDCC*, 48(3), pp.657-670.

Nimoh. F., Tham-Agyekum, E.K., & Awuku, M.S., 2013. Factors influencing access of poultry farmers to credit: The Case of the Agricultural Development Bank (ADB) in Ga East Municipality, Ghana. *Mgmt*, 3(1), pp.54-58.

Nouman, M., Siddiqi, M., Asim, S., & Hussain, Z., 2013. Impact of socio-economic characteristics of farmers on access to agricultural credit. *SJA*, 29(3), pp.469-476.

Oboh, V., & Kushwaha, S., 2009. Socio-economic determinants of farmers' loan size in Benue State, Nigeria. *Res. J. Appl. Sci*, 5(4), pp.354-358.

Omolade, O.K., & Adepoju, A.O., 2019. Credit Constraints and Agricultural Productivity of Rural Households in Nigeria. *J. Adv. Dev. Econ*, 8(1).

Onu, J., Nmadu, J., & Tanko, L., 2014. Determinants of Awareness of Credit Procurement Procedures and Farmers Income in Minna Metropolis, Nigeria. *Niger. Agric. J*, 4, pp.1-11.

Rehman, A. A., & Alharthi, K., 2016. An introduction to research paradigms. *IJEI*, 3(8), pp.51-59.

Rizwan, M., Ping, Q., Iram, S., Nazir, A., & Wang, Q., 2019. Why and for what? An evidence of agriculture credit demand among rice farmers in Pakistan. *ADB Institute*, 995, pp.1-13.

Samuel, A.A., & Asana, A.K., 2021. Factors influencing credit access among small-scale poultry farmers in the Sunyani West District of the Bono region, Ghana. *J. Agric. Ext. Rural Dev*, 13(1), pp.23-33.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Saqib, S.E., Kuwornu, J.K., Panezia, S., & Ali, U., 2018. Factors determining subsistence farmers' access to agricultural credit in flood-prone areas of Pakistan. *Kasetsart J. Soc. Sci.*, 39(2), pp. 262-268.

Sekyi, S., Abu, B. M., & Nkegbe, P. K., 2017. Farm credit access, credit constraint and productivity in Ghana: Empirical evidence from Northern Savannah ecological zone. *Agric. Finance Rev.*, 77(4), pp.446-462

Sossou, C.H., Noma, F., & Yabi J.A., 2014. Rural credit and farms efficiency: modelling farmers credit allocation decisions, evidences from Benin. *Econ. Res. Int.*, pp.1-8.

Ullah, A., Mahmood, N., Zeb, A., & Kächele, H., 2020. Factors determining farmers' access to and sources of credit: evidence from the rain-fed zone of Pakistan. *Agriculture.* 10(12), p. 586.

Yehuala, S., 2008. Determinants of smallholder farmers access to formal credit: the case of Metema Woreda, North Gondar, Ethiopia. *Thesis, Haramaya University.*

Zeller, M., 1994. Determinants of credit rationing: A study of informal lenders and formal credit groups in Madagascar. *World Dev.* 22(12), pp.1895-1907.

Zuberi, H.A., 1989. Production function, institutional credit and agricultural development in Pakistan. *Pak. Dev. Rev.*, 28(1), pp.43-55.

Zulfiqar, F., Shang, J., Zada, M., Alam, Q., & Rauf, T., 2021. Identifying the determinants of access to agricultural credit in Southern Punjab of Pakistan. *Geo Journal*, 86(6), pp.2767-2776.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Herding and Heuristic Biases Affecting the Investment Decision Making An Evidence from Pakistan Stock Exchange (PSX)**

Muhammad Tanveer Ikram

University of the Punjab, Lahore, Pakistan

Mubbsher Munawar Khan

University of the Punjab, Lahore, Pakistan

### **Abstract**

Taking investment decision in stock market has always been perplexing and difficult task. When one thinks to invest in stock market, his investment decisions are influenced by certain psychological factors. Herding and heuristic biases while investing in stock market play a significant role on investors' investment decisions. The purpose of the study is to explore certain behavioral factors which influence the investment decision making and their overall impact on the investment performance. As there are limited studies about behavioral finance in Pakistan, this study is expected to contribute significantly to the development of this field in Pakistan. The study begins with the existing theories in behavioral finance, based on which, three hypotheses are proposed. Then, these hypotheses are tested through the questionnaires distributed to individual investors at Pakistan Stock Exchange. The collected data are analyzed by using SPSS and AMOS soft-wares. The result shows that there are two main behavioral factors affecting the investment decisions of individual investors at Pakistan Stock Exchange: Herding and Heuristic. These factors have high level impact on investment decisions whereas Representativeness bias has moderate influence. This study also tries to find out the correlation between these behavioral factors and investment performance. Here herding factor includes following other investors' decisions regarding buying and selling; choice of trading stocks; volume of trading stocks and speed of herding while heuristic factor is composed of five different biases namely representativeness, anchoring, overconfidence, gamble's fallacy and availability. The herding behaviors are found to have the positive impact on the investment performance while the heuristics influence negatively upon investment performance.

**Keywords:** "Behavioral finance", "Pakistan Stock Exchange", "Behavioral biases influencing investors' decisions", "Investment performance".

### **Introduction**

#### **Introduction to Problem**

Investment biases refer to an investor's internal tilts towards buying a particular stock or mental shortcuts which one adopts instead of making requisite fundamental and technical calculations before making investment decisions. Here, decision making refers to choosing and investing in the most suitable stock among available alternatives. To decide where to invest and selecting a specific zone is the laborious part in investment decision making. We have to analyze various factors like market condition, risk bearing capacity, risk adjusted returns and many more at the time of investment. The investors must carry out financial analysis (both fundamental and



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

technical) of market securities under consideration before making investment and captivate all the data restrained in the market and make rational and optimal decisions accordingly. Conversely, the psychological biases of stock-holders impact their investment decision making and they accord irrational investment decisions which lead to undesired profitability.

It is evident that when individuals or organizations make investment decisions, they try their best to make rational and optimal decisions. It demands for analyzing all available information and focusing on most concerned part objectively which is extremely nerve-racking task or perhaps impossible one. Situational constraints like time, huge quantum of data, pressure etc. and mental cognitive limitations like short memory and emotions' impact compel the investors to make decisions on the basis of random data, which they seem important. Although this makes the process of decision making simple but it entails the risk of error coherently (Gigerenzer, 2000). Daniel Kahneman (an Israeli Psychologist and 2002 Nobel Laureate) and Amos Tversky are considered as pioneers who proved the occurrence of heuristic biases among investors. It is also proven fact that investment decisions were made irrationally in Polish market and the investors behaved overconfidently even in the time of crisis. These incidents paved the way of observing and studying behavioral finance and the factors which affect investors' investment decision making at financial markets. Every direct investor who invests in stock market keeps in mind a common goal that he would earn maximum return. Sometimes these cravings of earning tremendous gains lead to heuristics instead of optimal calculations and systematic procedures. Either the investors follow the herds which refers to investing in the same manner as others are investing, or they invest over-confidently thinking that they have a better understanding of market than actually they know. These biases have, undoubtedly, exceptional psychological effects on the investment decisions of individual investors. In this study, we shall discuss such factors like herding, representativeness, overconfidence, anchoring, gambler's fallacy and availability which affect the investment selection by individual investors and their overall impact on the profitability of such investors.

### **Herding Effect**

Investment herding refers to propensity of investors to mimic the crowd in the financial market. Simply, it is the tendency of investors to follow other investors' decisions. Professional researchers pay special attention to the impact of herding because often individual investors are inclined more towards collective information as compared to private information. Hence, the stocks' prices may deviate from fundamental value and opportunities of stock investment are affected accordingly. Similarly, academic researchers also focus on the impact of herding. When stock prices fluctuate due to herding, it impacts the asset pricing theories and risk-return models' perspectives are influenced accordingly (Tan, Chiang, Mason & Nelling, 2008).

### **Heuristic Theory**

Ritter (2003) defines heuristics as rules of thumb or mental shortcuts to solve problems and make decisions efficiently and quickly particularly in unsure and complex conditions. Kahneman and Tversky (1974) threw light as these heuristics tend to lessen the perplexity of evaluating probabilities and foreseeing upcoming findings to simplify decisions. Generally, they are reasonably helpful and supportive in decision making, especially when there is shortage of time (Waweru et al., 2008). Kahneman & Tversky (1974) further stressed that these heuristics



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

sometimes give birth to biases. It is unanimously agreed that the pioneers who pointed out reasons causing heuristics were Daniel Kahneman and Amos Tversky. They introduced factors namely representativeness, anchoring and availability biases. Waweru et al. (2008) also proposed some perceptible factors in this regard i.e. overconfidence and gambler's fallacy.

### **Representativeness**

Representativeness bias refers to the confusion caused by the similarity of events regarding the probability of an outcome. DeBondt & Thaler (1995) state in this regard that one thinks that an event would happen as it happened previously. Kahneman and Tversky (1974) define it as the degree of similarity an event has with its population. It causes serious biases because investors focus on current information and confer extra weightage to recent experience and neglect average rates based on previous period (Ritter, 2003). An example of representativeness bias is that investors give undue importance to a company's growth rate if it is increasing from some previous quarters (Waweru et al., 2008). Also, when a researcher tends to go for a short-cut and deduce from very small sample size, representativeness bias occurs (Barberis & Thaler, 2003). In this way, we can assume that representativeness bias leads to so-called "sample size neglect". It is concluded that when investors prefer to trade in those stocks which are being bought or sold like hot cakes instead of those which are not performing up to the mark, this sign leads to representativeness. This behavior explains overreaction of investors (DeBondt and Thaler, 1995).

### **Anchoring**

Another heuristic bias is known as anchoring which occurs when one considers some initial findings and tries to draw results out of these insufficient and scrappy values, which are tilted towards such embryonic data. Kahneman & Tversky (1974) endorse the same as such reliance on initial values causes anchoring bias as final outcomes cannot be drawn from initial values. Anchoring arises in stock markets when one fixes a value scale by recent examination of securities. Investors usually think about initial purchase price when they are going to sell or analyze. In this way, we can say that historical prices determine present prices. Further, anchoring helps to assign a suitable value to a particular share or company's income is estimated by analyzing historical data of relative company. In a sense, anchoring is linked with representativeness bias because people rely more on recent experience and they show optimistic behavior when bullish trend is observed in the market and pessimistic behavior when bearish trend prevails (Waweru et al., 2008).

### **Overconfidence**

Overconfidence refers to overestimating the knowledge, skills and expertise of investors while making investment decisions (DeBondt & Thaler, 1995; Hvide, 2002). Evidences reveal that financial experts change their assessment about a company gradually even circumstances indicate that previous assessment is no longer accurate. Evans (2006) states that financial experts show overconfidence in those areas of trading about whom they think that their decisions are based on sufficient information. It helps to ameliorate risk tolerance, willpower, persistence and mental facility. More clearly, it can be said that overconfidence plays an exceptional role to increase professional performance. It enhances one's perception of one's abilities to accelerate performance and holding period (Oberlechner & Osler, 2004).





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Availability**

When people rely on easily available information excessively and make use of it, availability bias happens. Waweru et al. (2003) state that availability bias occurs in stock markets when investors prefer to invest in local companies about whom they can access information easily and have much familiarity with and ignore the basic principles of portfolio diversification for optimization.

### ***Gambler's Fallacy***

Waweru et al., (2008) state that gambler's fallacy occurs in financial markets when investors foresee vaguely about the reverse points about which it is estimated that they will produce handsome market returns. Further, when one is suffered from status quo bias, one tends to choose an option which was selected in the past and it resulted in outperformance (Kempf and Ruenzi, 2006).

### **Objectives of the Study**

The main objectives of this study include:

To find the behavioral factors belonging to investment biases which affect the individual investors' investment decisions at Pakistan Stock Exchange;

To find the impact levels ( if any ) of these behavioral biases on individual investors' investment decisions at Pakistan Stock Exchange;

To calculate the impact of such biased investment decisions of individual investors on investment performance at PSX.

### **Literature Review**

Kim & Nofsinger (2008) state that the behavioral finance was not widely accepted at start. Studies of DeBondt & Thaler (1995) had to face a lot of arguments and these were considered dubious and uncertain. At first, the asset pricing was the origin of the study and this area was concentrated more than others but now the effects or the elements which impact the investors' decision making are consolidated in studies' models frequently. Barberis and Thaler (2003) are considered as legendary writers who provided an exceptional study about behavioral biases, their impact on investors' decision making and financial markets.

Generally, the behavioral finance papers are based on stocks' data which don't match well with market efficiency theories and asset pricing model. In this context, the opponents of behavioral finance theory criticize that its persuasion ratio is slow especially when audiences seem to be skeptical. By using individual brokerage data, this limitation can be eliminated. Many studies conducted so far reveal that individual investors are affected by numerous biases while making investment decisions in stock market (Kim & Nofsinger, 2008). In continuation, many researchers tested these biases and found the empirical evidence with respect to asset pricing (Hirshleifer, 2001). As of now, couples of studies just like a drop in ocean have been conducted to examine the impact of behavioral biases on investors' decisions and performance although it is not hard to produce controlled environment and planned experiments can be carried out accordingly (Kim & Nofsinger, 2008).

Undoubtedly, Asia is a fascinating place of studying behavioral finance because of its variety of government forms and participants' experience in the field of finance. Some economies are



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

developing while others have been developed long ago. Due to this variety like difference of knowledge, education, experience, culture, income and beliefs, Asia can be said a great place for studying behavioral finance. In addition to this, Asian individual investors are thought of just gamblers and they seem to be affected by biases more than western people (Kim & Nofsinger, 2008). Social scientists and psychologists are of the view that culture plays a vital role to nurture tendencies towards behavioral biases among investors and levels vary accordingly (Yates, Lee and Bush, 1997). The difference among cultures is defined as individualism-collectivism continuum (Kim and Nofsinger, 2008). It is assumed that Asian countries belong to socially collective paradigm which causes overconfidence bias among investors. Also, cultural differences, more specifically, diverse education and experience levels affect human behaviors differently that's why behavioral inclinations differ among different cultures. Yates et al. (1997) found some evidences that Asian people exhibit more behavioral biases as compared to western people.

Thaler (1999) urges to have behavioral finance research and add them into their research models. He suggested that if corporate finance is studied comprehensively, this will surely helpful in collecting plenty of data on individual investors. Later, the circumference of such studies was stretched and it was concluded that more behavioral finance research in Asian Markets means more understanding about investors' inclinations (Kim and Nofsinger, 2008).

Statman (1999) and Rabin (2002) state that sometimes researchers exaggeratedly give undue importance to a small sample and think it is a true representative of whole population from which it is drawn, this refers to "law of small numbers". Barberis & Thaler (2003) accelerate this notion as this overestimation further leads to Gamblers' fallacy.

We can summarize it as there are numerous methods to measure performance of stocks. Mainly, the secondary data of investors' results is used to measure performance of stock investment (Kim and Nofsinger, 2003; Lin and Swanson, 2003). However, this study is about evaluating investors' own performance. Here, Oberlechner and Osler's study as mentioned in the last paragraph is considered as a benchmark to measure the performance of investment. Objective and subjective view-points of individual investors are considered to evaluate the return rate of stock investment. For subjective assessment, the real returns of investors are compared with their expected returns while objective assessment is made by comparing their current real returns and average returns. Some of the investors feel satisfied even their profitability rate are not high, on the other hand other feel dissatisfaction even if their profit rates are relatively high. In the light of above mentioned studies, we can assume that herding and heuristic biases influence the investors' decision-making and their performance as well.

### **Research Methodology:**

Sratified random sampling method was used to collect data from individual PSX investors with the help of structured questionnaire. A cross-sectional design was used in this study. 492 respondents shared their valued responses. They either handed over the filled questionnaires to concerned brokers or sent their responses through Google forms. Results were obtained by employing SPSS and AMOS softwares. Statistical techniques namely Factor Analysis, Descriptive Statistics, Cronbach's Alpha test and SEM (Structural Equation Modeling) were applied to obtain results and analyze data.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### Design of Measurements and Questionnaire

To measure the data, we used a questionnaire divided into three parts: personal information, behavioral factors that affect the investment decisions of individual investors at PSX and the impact of these biased decisions on the investment performance of these investors. The 6-point Likert scales were used to assess the degrees of individual investors' decision agreement with the impact of behavioral factors on the investment decision and investment performance as well. The 6 points on the scale are respectively from 1 to 6: extremely disagree, highly disagree, somewhat disagree, somewhat agree, highly agree and extremely agree.

In this study, the behavioral biases which impact the investment decisions of individual investors at Pakistan Stock Exchange and their impact on the investment performance can be categorized into two groups: herding effect and heuristic, which are presented in Table 1 and Table 2.

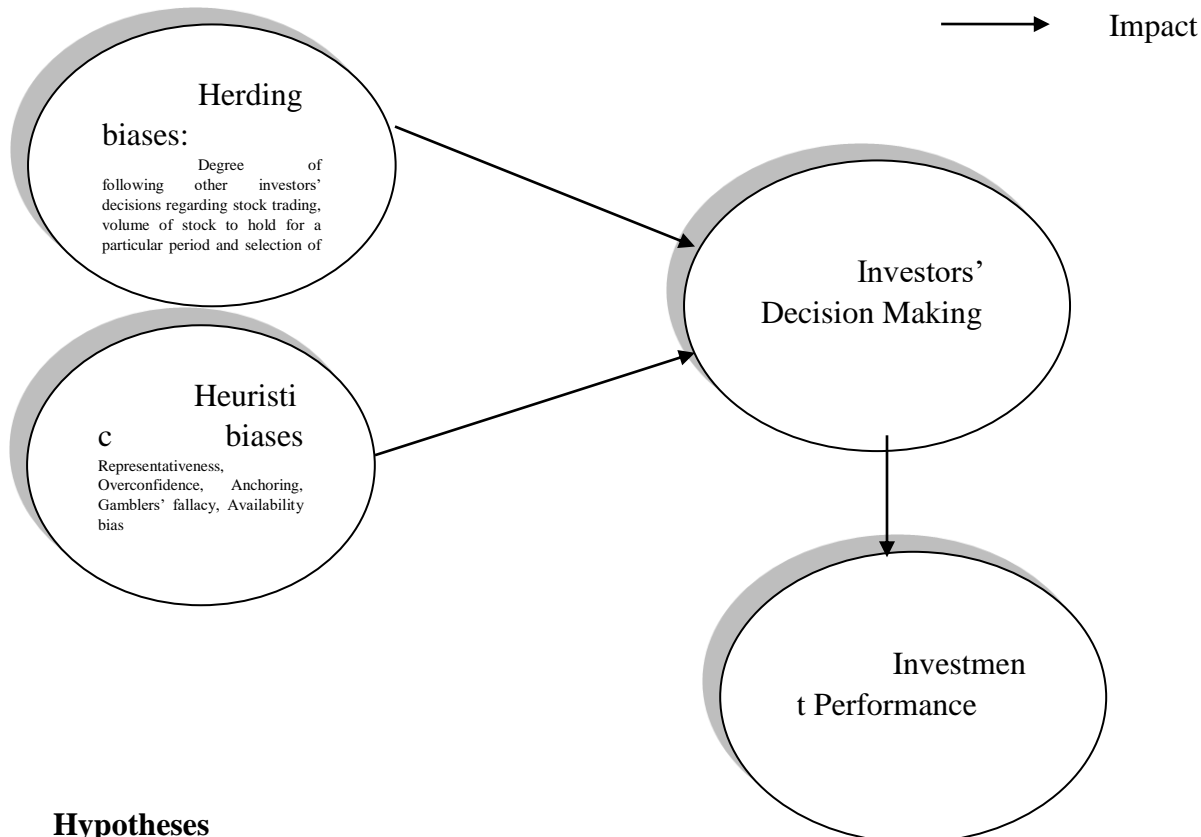
Table 1. Variable description

Theory	Behavioral variables
Herding Effect	Other investors' decisions regarding buying and selling stocks Other investors' stock choice for trading Other investors' decisions regarding stock volume to hold for trade in future Speed of Herding
Heuristics	Representativeness Overconfidence Anchoring Gamblers' fallacy Availability bias

Table 2. Variable description

Investment Performance	The current return rate of my stock investments is meeting my expectations.. My earned rate of return is equal to or higher than the average return rate of the market. I feel satisfied with my investment decisions in the last year (including selling, buying, choosing stocks, and deciding the stock volumes).
------------------------	--

**Research Model**



**Hypotheses**

On the basis of above mentioned studies, the proposition of following hypotheses is made as:

**H1:** The biases that impact the investment decision-making of individual investors at Pakistan Stock Exchange (PSX) are categorized into two groups: herding and heuristics.

**H2:** At Pakistan Stock Exchange, the herding and heuristic biases have impact on the investment decision-making of individual investors at high level.

**H3:** Such biased investment decisions of individual investors at PSX have positive impact on the investors' performance.

The technique employed to test H1 is termed as “Exploratory Factor Analysis”. It tends to recognize the dimension of above mentioned biases. Respondents’ evaluations of influence degrees regarding herding and heuristic biases on investors’ decisions will be synthesized to test H2. By employing SEM (Structural Equation Modeling) which shows correlation between these biased investment decisions and investment performance, H3 is tested.

**Data Analysis Method**

The data collected was processed and analyzed by SPSS and AMOS softwares. The statistical techniques used to meet the objectives of the study include cronbach’s alpha test, descriptive statistics, factor analysis and SEM. A total of 600 questionnaires were distributed for data collection but 492 responses were collected completely for further analyzing through computer



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

aids. Exploratory Factor Analysis (EFA) and multiple regressions along with Confirmatory Factor Analysis (CFA) tests were used to identify the factors of investor behavior and the impact of these biases on investors' investment decisions and investment performance.

### Analysis and Interpretation

#### Factor Analysis

The exploratory factor analysis (EFA) is used for the variables of behavior and investment performance to identify the factors to which these variables belong to the requirements of the factor analysis to reduce the variables. After a few rounds to eliminate insufficient variables, the analysis shows that the remaining variables are grouped into three factors (two factors of behavioral variables and one investment performance factor), in the KMO = 0.623, sig is 0.000 and percentage of total variance explained is 68.92%. Also, all factor loadings exceed 0.5 which is an evidence of factor analysis reliability, acceptability and suitability.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.623
Bartlett's Test of Sphericity	Approx. Chi-Square	1150.701
	Df	55
	Sig.	.000

### Communalities

	Initial	Extraction
H1	1.000	.576
H2	1.000	.673
H3	1.000	.669
H4	1.000	.633
R1	1.000	.691
R2	1.000	.708
O1	1.000	.590
G1	1.000	.612
P1	1.000	.721
P2	1.000	.870
P3	1.000	.837

Extraction Method: Principal Component Analysis.



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.864	26.034	26.034	2.864	26.034	26.034	2.843	25.848	25.848
2	2.487	22.612	48.646	2.487	22.612	48.646	2.502	22.742	48.590
3	2.230	20.274	68.920	2.230	20.274	68.920	2.236	20.330	68.920
4	1.273	11.568	80.488						
5	.935	8.497	88.985						
6	.381	3.463	92.448						
7	.223	2.029	94.477						
8	.204	1.852	96.328						
9	.167	1.517	97.846						
10	.153	1.387	99.233						
11	.084	.767	100.000						

Extraction Method: Principal Component Analysis.

Table 4. Rotated Component Matrix

Factors	Variables	Factor Loading		
		F1	F2	F3
Herding Effect	Q.11 Other investors' decisions of choosing stocks at Pakistan Stock Exchange have impact on my investment decisions.	.717		
	Q.12 Other investors' decisions regarding stock volume at PSX have impact on my investment decisions.	.802		
	Q.13 Other investors' decisions of buying and selling stocks at Pakistan Stock Exchange have effect on my investment decisions.	.798		
	Q.14 I usually respond quickly to the changes of other investors' decisions and follow their reactions at Pakistan Stock Exchange.	.778		
Heuristics	Q.15 I prefer to buy those stocks which are performing well and avoid stocks that have performed poorly in the recent past.		.739	



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	Q.16 To make investment decisions, I use trend analysis of some representative stocks. This way, I make investment decisions for all stocks where I invest.		.786	
	Q.17 I believe that my skills, expertise and knowledge of stock market can help me to outperform in the market.		.715	
	Q.20 I am normally able to anticipate the end of good or poor market returns at Pakistan Stock Exchange (PSX).		.700	
Investment Performance	Q.23 The current rate of return for my stock investments is meeting my expectations..			.844
	Q.24 My rate of return is equal to or higher than the average return rate of the market.			.931
	Q.25 I feel satisfied with my investment decisions in the last year (including selling, buying, choosing stocks, and deciding the stock volumes).			.909

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 4 iterations.

### INTERPRETATION

As it can be seen in table 4, the variables herding effect and heuristics are grouped into related factors. Some of the factor loadings of the variables have been removed from the analysis since their factor loadings are less than 0.5. The results illustrate that the behavioral biases which impact the investment decisions of individual investors at PSX can be grouped into two factors: herding effect and heuristics, and hence this supports H1.

### Reliability testing by calculating Cronbach's Alpha

To test the internal consistency among variables, Cronbach's Alpha test is used. Cronbach's alpha test is the procedure of choice to examine the internal consistency of the items using Likert-type scale (Walsh & Betz, 1995). These measurements give us go ahead and ensure the reliability of data for further processing. The Cronbach's Alphas of different behavioral biases which influence the individual investors' decision making regarding their investments at Pakistan Stock Exchange and investment performance are given in below table.

**Table 5. Reliability Table**

Variables	Cronbach's alpha
Herding Effect	.716
Representativeness	.747



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Overconfidence and Gambler's fallacy	.680
Anchoring	.744
Availability	.620
Investment Performance	.785

Cronbach's alpha for herding effect, representativeness, overconfidence & gambler's fallacy, anchoring, availability and investment performance is 0.716, 0.747, 0.680, 0.744, 0.620 and 0.785 respectively which depicts internal consistency and reliability among collected data at an acceptable level for further processing as stated by Gliner & Morgan (2000) that the marginal acceptable reliability should be higher than 0.60, The above indices satisfy the acceptability and reliability of different variables and allow us to use further statistical techniques for in-depth analysis.

**Table6. Overall reliability**

**Scale: ALL VARIABLES Overall Reliability**

**Case Processing Summary**

Cases		N	%
	Valid	478	97.2
	Excluded <sup>a</sup>	14	2.8
	Total	492	100.0

Listwise deletion based on all variables in the procedure

*4.3 Impact of Behavioral Variables on Investors' Decision Making*

To calculate the impact of behavioral variables on individual investors' decision making at PSX, the sample means of such variables are calculated by using SPSS software, which are as under:

Factor	Variable Code	Mean( $\bar{x}$ )	Standard Deviation( $\sigma$ )	N
Herding Effect	H1	4.28	0.723	478
	H2	4.26	0.673	478
	H3	4.23	0.729	478
	H4	4.23	0.778	478
Heuristics	R1	3.84	1.379	478
	R2	3.84	1.255	478
	O1	4.14	1.027	478
	G1	4.07	0.917	478
	A1	4.01	1.190	478
	A2	4.04	1.151	478





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	AV1	4.57	0.744	478
	AV2	4.41	0.645	478

The results tabulated above reveal that the behavioral biases namely herding, overconfidence, gambler’s fallacy, anchoring and availability have high level impact on individual investors’ decision making regarding stock investment at Pakistan Stock Exchange as their sample means lie between 4 and 5. Only representativeness bias exhibits moderate impact with a sample mean value of 3.84 which is near to 4. Also, the grand mean of all these biases is equal to 4.16. Hence, these findings support the hypothesis H2.

Individual Investors’ Satisfaction Level regarding Investment Performance

To measure whether investors feel satisfied with their performance at PSX, sample means of investment performance variables (coded as P1, P2 and P3 respectively) are calculated by using SPSS software. The results are tabulated below:

Measure	Variable Code	Mean( $\bar{x}$ )	Standard Deviation( $\sigma$ )
Investment Performance	P1	3.14	0.959
	P2	2.90	1.037
	P3	2.92	1.027

The sample mean values tabulated in above table indicate that investors feel unsatisfied with their investment performance. The mean value of variable P1= 3.14 indicates that return rate obtained and expectations of investors are at large distance. The investors feel unhappy with this pathetic performance. The other two mean values of variables P2 and P3 which are 2.90 and 2.92 are the evidences of the facts that the investors feel their achieved return rate is far less than market return rate and they feel unsatisfied with their performance at Pakistan Stock Exchange.

#### 4.5 Impact of Biased Decision Making on Investment Performance

The third hypothesis in the study which narrates that herding and heuristics factors have positive influence on the investment performance of individual investors at Pakistan Stock Exchange is tested with the help of Structural Equation Modeling (SEM) by using AMOS software. The results show that herding has positive impact on investment performance with regression weight 0.07 while heuristic factor has negative impact on investment performance with regression estimate of -0.03. Hence, SEM results don’t support hypothesis H3.

#### Findings of the Study

The internal consistency of elements was calculated using the Cronbach’s alpha, which is a procedure of choice to examine the internal consistency of the elements using the Likert-type scale (Walsh & Betz, 1995). Cronbach’s alpha for herding effect, heuristics and investment performance factors were 0.716, 0.697 and 0.785 respectively. Gliner & Morgan (2000) state that the marginal acceptable reliability should be higher than 0.60. All the measures in this study are above 0.60, which not only demonstrate reliability but also confirm that consistency among above three factors is at an acceptable level.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Sample mean values above 4 regarding impact of behavioral biases on investment decisions at Pakistan Stock Exchange indicate that these biases have high level impact on individual investors' investment decisions. The investors should be aware of their internal tilts to make rational decisions at the time of investment. Also, SEM results indicate that herding effect has positive influence over investment performance while heuristics affect the same negatively.

### **Contribution of the study**

Daniel Kahneman (an Israeli Nobel Laureate) and Amos Tversky (an Israeli cognitive psychologist) are considered the pioneers in the field of behavioral economics who presented the concepts of heuristics and biases in 1974, which ultimately proved very beneficial for making rational investment decisions at different large markets of the world such as NYSE, NASDAQ etc. Pakistan Stock Exchange is a developing market where unfortunately such quality work in this regard to understand investor's behavior has not been carried out yet.

Behavioral finance is linked with psychological moves of investors. It asserts how our emotions impact our investment decisions because of cognitive limitations of our mind. This study is considered unique in the context that it encompasses those herding and heuristics factors of behavioral finance which undoubtedly impact our investment decisions and performance instead of most of the past studies which are based on traditional finance such as CAPM, EMH, MPT, rationality considerations etc. Further, this study combines the impacts of both herding and heuristic factors on investment decisions. As compared to this, Tran (2007) just finds the impact of herding factor on investors' investment decisions while Parveen and Ayub (2018) investigated the influence of heuristics on investors' decision making.

In the past, Kim and Nofsinger (2003) & Lin and Swanson (2003) used secondary data to study behavioral finance and impact of various behavioral biases on investment decisions. While in this study, 6-point Likert Scale was used to measure the impact of herding and heuristic biases on investment decisions and satisfaction level regarding investment performance of such effected investors. Cronbach's Alpha and Factor Analysis values of this study suggest that 6-point Likert Scale can be used to measure the impact and application of behavioral factor in stock market by using primary data.

This study is beneficial not only for individual investors of Pakistan Stock Exchange but also for security organizations and the field of behavioral finance itself. By going through this study, the individual investors can understand the stock market trends and their inner inclinations while making investment decisions to increase their profitability and satisfaction level. Similarly, the security companies may be able to predict future market trends and provide better consultation to their clients. Further, if traditional finance and behavioral finance are compared in respect of their practical applicability, we can see that the first excels as the second is very new to emerging markets. Hopefully, this study will be proved a milestone for the field of behavioral finance and open new horizons for the prosperity of investors in emerging markets.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Recommendations for PSX Individual Investors**

The findings of the study obtained by using SPSS and AMOS soft-wares reveal that these biases have high level impact on investment decision making of individual investors at Pakistan Stock Exchange and ultimately they become a valid reason of investors' negative performance. The investors must have a good know-how about these biases and their impact over performance. While making investment decision at PSX, they should correlate their investment decisions and findings of past behavioral finance studies for increasing their profitability and understanding future market trends.

Also, the findings suggest that herding factor has positive impact while heuristics have negative influence over investment performance. In this context, it is recommended that the investors should move along market trends if they are not eligible to perform their own fundamental and technical analysis while making investment decisions to outperform in the market. The heuristic biases impact negatively over investors' performance so their recognition and avoidance is recommended in the best interest of individual investors.

### **Future directions**

The spectrum of the research can be broadened in the following areas:

Other behavioral biases like loss aversion, regret aversion, mental accounting, self attribution, hindsight and framing can be included in the future studies as independent variables to measure their impact over investment performance;

Market anomalies like over-reaction to price changes, customer preferences, market information, price changes and fundamentals of underlying stocks can be used as independent variables to calculate their impact over investment performance.

This study may be applied to whole financial sector of Pakistan and rest of the world comprising on banks, NBFCs, DFIs, MFBs, insurance companies and financial intermediaries using same independent variables or with some extension as mentioned above to make the comparison.

### **Conclusions**

A final touch is given to this study by answering the research questions: the comprehensive answers of these questions are the ample evidence of the fact that the research objectives have been accomplished and proposed hypotheses have been tested. The conclusions of the study are presented below in shape of research questions' answers: *Which biases impact the individual investors' investment decisions at PSX and which factor do they belong to?* Behavioral biases which impact the investment decisions of individual investors at Pakistan Stock Exchange can be grouped into two main factors namely herding and heuristic. Following four variables are discussed under the caption of herding: (i) Following other investors' decisions regarding stock trading (buying and selling); (ii) Following other investors' decisions regarding holding a particular volume of stock; (iii) Following other investors' decisions regarding selection of a particular stock; (iv) Following other investors' reaction towards a quick change in the market. Similarly, five different variables (biases) belong to heuristics factor: representativeness, overconfidence, anchoring, gambler's fallacy and availability bias. These findings almost



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

support hypothesis H1. *What is the impacting intensity of these biases over individual investors' investment decisions at PSX?* Findings obtained with the help of SPSS software by calculating sample means indicate that these biases have high level impact on investment decision making of individual investors at Pakistan Stock Exchange. Most of the variables' means fall in the 4<sup>th</sup> slab i.e.  $4 < \bar{x} < 5$ , which implies that these biases have high level impact on investment decisions. These findings support hypothesis H2. *Do all these biases have positive influence over the performance of individual investors at PSX?* Structural Equation Modeling (SEM) is used to represent relationship between behavioral biases and investment performance. The findings indicate that herding has positive impact over investment performance of individual investors at Pakistan Stock Exchange while heuristic factor has negative influence over investors' performance. The regression weights between herding factor and investment performance is 0.07 while heuristics factor and investment performance correlate each other with weightage -0.03. Hence, these findings don't support hypothesis H3 which proposes that these biases have positive influence over investment performance.

It can be inferred from calculations carried out with the help of computer aids; if you are going to invest in stock market, make your own fundamental and technical analysis before investing in a market security. If you are not capable enough, flow with the market trends. Simply, invest in those securities in which others are investing. Don't be victimized by overconfidence or anchor with some initial information. All such tilts and mental shortcuts lead to underperformance of security investments.

### References:

- Barberis, N. and Thaler, R. (2003). A Survey of Behavioral Finance. *Handbook of the economics of finance*. Volume 1B. Financial markets and asset pricing, 1053-1123.
- Blumberg, B., Cooper, D. R. and Schindler, P. S. (2005). *Business Research Methods*. Spain: McGraw Hill Education (UK).
- Bryman, A. and Bell, E. (2007) *Business Research Methods*, Second edition, Oxford University Press.
- Bryman, A. and Bell, E (2011). *Business Research Methods*, Third edition, Oxford University Press.
- DeBondt, W.F.M. and Thaler, R. (1985). Does the stock market overreact? *Journal of Finance*, 40 (3), 793–805.
- DeBondt, W. F. M. and Thaler, R. H. (1995). Financial Decision-Making in Markets and Firms: A Behavioral Perspective. *Handbooks in Operations Research and Management Science*, 9 (13), 385-410.
- Evans, D.A. (2006). Subject perceptions of confidence and predictive validity in financial cues. *Journal of behavioral Finance*, 7 (1), 12–28.
- Gigerenzer, G. (2000). Putting naturalistic decision making into the Adaptive Toolbox. *Journal of Behavioral Decision Making*, 14, 353-384.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Hirshleifer, D., 2001. Investor psychology and asset pricing. *The Journal of Finance*, 56 (4), 1533–1597.

Hvide, H. K. (2002). Pragmatic beliefs and overconfidence. *Journal of Economic Behavior & Organization*. 48 (1), 15-28.

Kahneman, D. and Tversky, A. (1974). Judgment under Uncertainty: Heuristics and Biases, *Science*, 85 (4157), 1124-1131.

Kahneman, D. and Tversky, A. (1979). Prospect theory: an analysis of decision-making under risk', *Econometrica*, 47 (2), 263–291.

Kempf, A and Ruenzi, S. (2006). Status quo bias and the number of alternatives: an empirical illustration from the mutual fund industry. *Journal of Behavioral Finance*, 7 (4), 204–213.

Kim, K. and Nofsinger, J. (2008). Behavioral finance in Asia. *Pacific-Basin Finance Journal*, 16 (1-2), 1–7.

Lin, A. and Swanson, P. (2003). The Behavior and Performance of Foreign Investors in merging Equity Markets: Evidence from Taiwan. *International Review of Finance*, 4 (3–4), 189–210.

Oberlechner, T. and Osler, C., L. (2004). Overconfidence in currency markets. Website: <http://faculty.haas.berkeley.edu/Iyons/Osler%20overconfidence%20in%20FX.pdf>, [Retrieved 29-11-2021].

Parveen, S. and Ayub, S. (2018). Anchoring Heuristic, Disposition Effect and Overconfidence Bias in Investors: A Case of Pakistan Stock Exchange. *Abasyn Journal of Social Sciences*, 11(2), 280-294.

Rabin, M. (2002), Inference by believers in the law of small numbers. *Quarterly Journal of Economics*, 117 (3), 775–816.

Ritter, J. R. (2003). Behavioral Finance. *Pacific-Basin Finance Journal*, 11 (4), 429-437.

Statman, M. (1999). Behavior finance: past battles and future engagements. *Financial Analysts Journal*, 55 (6), 18–27.

Tan, L., Chiang, T. C., Mason, J. R. and Nelling, E. (2008). Herding behavior in Chinese stock markets: An examination of A and B shares. *Pacific-Basin Finance Journal*, 16 (1-2), 61–77.

Thaler, R.H. (1999). The end of behavioral finance. *Financial Analysts Journal*, 55 (6), 12–17.

Walsh, W. B., & Betz, N. E. (1995). Tests and assessment (3rd ed.). Englewood Cliffs, N.J.: Prentice Hall.

Waweru, N., M., Munyoki, E., and Uliana, E. (2008). The effects of behavioral biases in investment decision-making: a survey of institutional investors operating at the Nairobi Stock Exchange. *International Journal of Business and Emerging Markets*, 1 (1), 24-41.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Yates, J.F., Lee, J., Bush, J.G., 1997. General knowledge overconfidence: cross-national variations, response style, and “reality”. *Organizational Behavior and Human Decision Processes*, 70 (2), 87–94.

Zuravicky, O. (2011), *The Stock Market: Understanding and applying ratios, decimals, fractions, and percentages*, The Rosen Publishing Group, Inc.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Moderation of Institutional Quality in Determining Environmental Sustainability of Economic Growth and Transport Sector: Robust PQR Model in Global Perspective**

Muhammad Shahzad Sardar

University of Management & Technology, Lahore

Hafeez ur Rehman

University of Management & Technology, Lahore

### **Abstract**

The continuously increasing GHG emissions have resulted in climate change. The adverse impacts of climate change include frequent occurrence of heat waves, flash floods, heavy rains, dust storms and droughts. The environmental protection is one of important goals of Sustainable Development Goals (SDGs). The share of carbon emissions in total GHG emissions is above seventy percent. Transport sector is major user of fossil fuels which emits carbon emissions and share of carbon emissions of transport sector is above twenty percent in total carbon emissions. The role of institutional quality is highly important in determining the environmental sustainability. Accordingly, in this research study the role of institutional quality is engaged in determining the carbon emissions of transport sector. The Environmental Kuznets Curve (EKC) is used to analyze the dynamics of environmental sustainability of economic growth and transport sector. The moderation of institutional quality is engaged in determining the changes in turning points of EKC. The sample of 121 countries was engaged for time period from 2008 to 2018 for analysis of study variables. The total sample of countries was converted into four dynamic groups on the basis of carbon emissions of transport sector. The Panel Quantile Regression (PQR) technique was used for estimation of extended STIRPAT model. The study results revealed that institutional quality tends to significantly increase carbon emissions of transport sector across majority of quantile groups. The EKC was validated for economic growth and carbon emissions of transport sector in all quantile groups. The moderation of institutional quality results in sustainable economic growth and carbon emissions of transport sector. The study results implicated that strengthening of institutions improves governance which tends to mitigate carbon emissions of transport sector in majority of groups.

### **Introduction**

The Sustainable Development Goals (SDGs) includes environmental protection goals and nations of World are adopting different targets for net zero emissions to protect the environment (Swain & Karimu, 2020; Honegger et al., 2021; Zakari et al., 2022). The nations of World have also adopted the declarations of Paris Agreement to mitigate GHG emissions (Estrada & Botzen, 2021; Ali et al., 2021). Subsequently, the Conference of Parties (CoP) held on annual basis reviews the progress on environmental commitments regarding climate adaptation and mitigation strategies (Wang et al., 2020; Pradhan et al., 2021; Hao & Cho, 2022). The developing nations are more vulnerable to environmental crisis and allocations from World green fund is highly



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

required to promote climate resilience (Xu et al., 2021; McCartney, 2022). The preparedness for future impacts of climate change refers to climate resilience which can be enhanced by strengthening institutions to promote good governance for implementation of environmental protection policies (Palermo & Hernandez, 2020; Suman, 2021; Hussain et al., 2022). Thus, to promote strategies for climate adaptation, mitigation and resilience is the outcome of good governance / institutional strengthening (Sun et al., 2019; Qiang & Jian, 2020; Islam et al., 2021; Sun et al., 2022). In this regard, the institutional quality is highly important to manage adversities of climate change as better institutional quality improves governance and results in better implementation of environmental protection policies (Godil et al., 2020; Azam et al., 2021; Ahmad et al., 2022; Sardar et al., 2022; Sardar & Rehman, 2022).

Keeping in view the importance of environmental protection and climate change vulnerabilities, it is highly necessary to engage the role of institutional quality in determining the carbon emissions of transport sector. To best of knowledge, the institutional quality is not engaged as moderator in determining the environmental sustainability of economic growth and carbon emissions of transport sector. After identifying research gap, three distinct objectives of research study are considered. The first objective of research study is to engage the role of institutional quality in determining the carbon emissions of transport sector. The second objective is to analyze the sustainability of economic growth by validating Environmental Kuznets Curve (EKC). The third objective of research study is to engage moderation of institutional quality in determining the changes in dynamics of sustainability.

The contribution of this research study is multi prong as it considers more than 120 countries to analyze institutional role in determining carbon emissions of transport sector. This study uses four dynamic grouping of countries based on carbon emissions of transport sector. The Panel Quantile Regression (PQR) estimation technique is used for analyzing study results across four quantile groups. The sequence of rest of paper is as follows: literature review is presented in second section of this paper, while third section contains theoretical framework for this research study. The research methodology is discussed in fourth section of this paper. The discussion regarding study results is presented in fifth section of this paper. The conclusions and implications are highlighted in final section of this research paper.

## Literature Review

Effective literature review is highly important to get insights about research topics and study objectives (Arshed et al., 2021a; Sardar & Rehman, 2022). Salman et al. (2019) explored the impact of institutional quality on carbon emissions for East Asian countries. The findings of the research study indicated that institutional strengthening is essentially required to mitigate environmental pollution. Acheampong et al. (2019) conducted research for 64 Sub-Saharan countries and identified that weak policy regulations increases carbon emissions in sample countries. Godil et al. (2020) identified positive relationship between institutional quality and carbon emissions of Pakistan indicating that corruption, poor governance, weak bureaucracy etc.,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

directly increases environmental pollution. Nwani and Adams (2021) engaged data of 93 nations to explore the role of institutions and environmental pollution. The study results suggested that improved institutional quality mitigates carbon emissions as it facilitates the proper implementation of environmental protection policies. Haldar and Sethi (2021) identified that institutional quality and renewable energy consumption is helpful in achieving the environmental protection goals of SDGs in 39 developing countries. Bakhsh et al. (2021) conducted research by taking data for different variables for 40 Asian countries identifying that moderation of institutional quality and foreign direct investment significantly moderates carbon emissions.

Khan et al. (2022a) conducted research by considering global panel to envisage the moderation of institutional quality for different explanatory variables of environmental protection. The findings of the research study indicated that interaction term of institutional quality significantly moderates the behavior of explanatory variables and carbon emissions. Karim et al. (2022) used data of thirty Sub-Saharan Africa countries for envisaging the role of institutional quality in determining the carbon emissions. The findings of research study indicated that institutional strengthening such as rule of law, corruption control and regulatory role tends to mitigate carbon emissions. Sheraz et al. (2022a) explored that weak institutional functioning such as corruption, bad governance of bureaucracy, improper implementation of environmental protection policies results in creating high ratio of carbon emissions in sample of 64 BRI countries. Obobisa et al. (2022) identified that green technologies are very helpful in mitigating carbon emissions for sample of 25 African countries, while, poor institutional quality is directly proportional to carbon emissions. Jahanger et al. (2022) engaged the role of institutional quality in determining the carbon emissions by taking sample of 73 developing nations. The study results revealed that higher level of institutional quality in sample countries ensures proper implementation of policies which mitigates carbon emissions.

The overview of literature indicates that several studies have engaged the role of institutional quality in determining the carbon emissions for different set of global panels (Salman et al., 2019; Godil et al., 2020; Nwani & Adams, 2021; Haldar & Sethi, 2021). Furthermore, very few studies are found which have engaged the moderation of institutional quality in determining the carbon emissions (Khan et al., 2022a; Sheraz et al., 2022a; Jahanger et al., 2022). However, to best of knowledge, we found none of the study in literature which used institutional quality as moderator for sustainability analysis of economic growth and carbon emissions of transport sector. Therefore, the research gap is evident to engage the moderation of institutional quality to determine changes in direction of slope of EKC for economic growth and carbon emissions of transport sector.

### **Theoretical Framework**

Theoretical foundations of this research study are based on theory of Environmental Kuznets Curve (EKC) (Wang et al., 2021b; Arshed et al., 2021a; Sardar & Rehman, 2022; Sardar et al., 2022). The environmental sustainability is highly important for conducive habitat of mankind. The EKC theory is frequently used for assessment of sustainability of economic growth and



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

carbon emissions of transport sector. The first possibility for sustainability analysis is inverted U shape EKC having two stages of economic growth and carbon emissions of transport sector (Aydoğan & Vardar, 2020; Cheikh et al., 2021; Jahanger, 2022; Weimin et al., 2022). The first stage shows positive relationship between economic growth and carbon emissions of transport sector. In this stage, expansion of economic growth increases carbon emissions of transport sector (Aydoğan & Vardar, 2020; Cheikh et al., 2021; Jahanger, 2022; Weimin et al., 2022).

The second stage of inverted U shape EKC shows inverse relationship between economic growth and carbon emissions of transport sector. This indicates that expansion of economic growth tends to mitigate carbon emissions of transport sector. The second possibility of EKC is U shape having two phases of economic growth. The first phase of U shape EKC is termed as balance growth stage (Wang et al., 2021; Arshed et al., 2021a; Sardar & Rehman, 2022; Işık et al., 2022). In balanced growth stage, expansion of economic growth mitigates carbon emissions of transport sector (Arshed et al., 2021a; Wang et al., 2021; Sardar & Rehman, 2022). However, the second phase of U shape EKC is termed as over growth stage as expansion of economic growth increases carbon emissions of transport sector beyond sustainable limits (Wang et al., 2021; Arshed et al., 2021a; Sardar & Rehman, 2022; Işık et al., 2022). These both possibilities of EKC for sustainability of economic growth and carbon emissions of transport sector is depicted in figure-1&2 (Wang et al., 2021; Sardar & Rehman, 2022).

### Research Methodology

Depending upon the availability of data of different variables considered in this research study, the time period is taken from 2008 to 2018.

Table 1: Study Variables

Short form of Variables	Variables Description	Source of Data
CO <sub>2</sub>	Log of Transportation Sector CO <sub>2</sub> Emissions (Mt/Capita)	EDGAR (2022)
GDPPC	Log of GDP Per Capita	WDI (2022)
GDPPC <sup>2</sup>	Log of the square of GDP Per Capita	WDI (2022)
PDEN	Log of Population Density	WDI (2022)
TC	Transportation Competitiveness Index	GCI (2022)
INST	Institutional Quality Index	ICRG (2022)

In literature extended STIRPAT model is used by several researchers and STIRPAT model used in this research study is as under:

$$CO_{2it} = \beta_1 + \beta_2 GDPPC_{it} + \beta_3 GDPPC_{it}^2 + \beta_4 GDPPC_{it} * INST_{it} + \beta_5 GDPPC_{it}^2 * INST_{it} + \beta_6 INST_{it} + \beta_7 PDEN_{it} + \beta_8 TC_{it} + \mu_{it} \dots \dots \dots \text{Eq. 1}$$

The linear and non-linear form of GDP growth is considered in this research model to validate EKC. The inverted U shape EKC is validated on basis of sign and significance of  $\beta_2$  and  $\beta_3$ . If  $\beta_2$





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

is positive and significant while  $\beta_3$  is negative and significant than inverted U shape EKC is validated. In case of U shape EKC,  $\beta_2$  must be negative and significant, while  $\beta_3$  must be positive and significant. If  $\beta_6$  is positive and significant than institutional quality is increasing carbon emissions of transport sector and negative sign of  $\beta_6$  indicates that institutional quality mitigates carbon emissions of transport sector. The positive sign of  $\beta_7$  indicates that population density increases carbon emissions of transport sector, while, negative sign of  $\beta_7$  represents that population density mitigates carbon emissions of transport sector. The positive sign of  $\beta_8$  shows that transport competitiveness increases carbon emissions of transport sector, while negative sign of  $\beta_8$  indicates that transport competitiveness mitigates carbon emissions of transport sector.

The robust approach of Panel Quantile Regression (PQR) estimation technique is used for analysis of study results (Powell, 2020; Godil et al., 2021; Sardar & Rehman, 2022). The PQR uses median as measure of central tendency and it is not affected by extreme values in data series. However, the conventional regressions models use mean as measure of average and produces inconsistent results in case of non-normal data series. The PQR was first presented by Koenker and Bassett (1978) in their seminal paper and later on several researchers have used this estimation technique (Machado & Silva, 2019; Zheng et al., 2019; Powell, 2020; Godil et al., 2021; Sardar & Rehman, 2022). As most of variables of this research study are non-normal hence PQR is most suitable approach to analyze study results.

## Results and Discussions

The study results indicated that institutional quality in quantile group-1,2&4 significantly increases carbon emissions of transport sector and inverted U shape EKC was validated in these three quantile groups. The validation of inverted U shape EKC indicates sustainability of economic growth for emitting carbon emissions of transport sector at higher levels of economic growth in quantile group-1,2&4. The linear moderation of institutional quality in quantile group-1,2&4 results in unsustainability as moderation has prolonged the expansion stage having direct relationship between economic growth and carbon emissions of transport sector. However, non-linear moderation of institutional quality in quantile group-1,2&4 ensures sustainability by flattening of EKC. The study results in quantile group-1,2&4 implicate that moderation of institutional quality at higher levels of economic growth results in sustainability by mitigating carbon emissions of transport sector. This may also provide insights regarding quantile group-1,2&4 to strengthen institutional governance to implement environmental regulations for adoption of green technologies and renewable energy in transport sector to mitigate carbon emissions.

The study results revealed that institutional quality tends to significantly mitigates carbon emissions of transport sector in quantile group-3. The U shape EKC was validated in quantile group-3 for economic growth and carbon emissions of transport sector. The validation of U shape EKC indicates that economic growth remains sustainable in first phase and increases carbon emissions of transport sector in second phase. The moderation of institutional quality is effectively observed in creating sustainable economic growth which tends to mitigate carbon



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

emissions of transport sector in quantile group-3. The linear moderation of institutional quality results in sustainability by promoting balanced growth stage to mitigate carbon emissions of transport sector in quantile group-3. The non-linear moderation of institutional quality flattens EKC and results in sustainability in quantile group-3. The study results indicate that moderation impact of institutional quality is strongest in quantile group-3 for ensuring sustainability as compared to other quantile groups. This provides striking finding that improvement in institutional quality across quantile groups can be very helpful by adopting green technologies to mitigate carbon emissions.

The study results indicated that transport competitiveness significantly increases carbon emissions of transport sector in all quantile groups except for quantile group-2. This also indicates that expansion of economic growth requires more transportation services for trade of goods and commutation of people. This also provides insights that improvement in quality of transportation services by adopting green technologies and renewable energy can improve transport competitiveness which mitigates carbon emissions of transport sector. The research analysis also indicated that planned expansion of population density significantly mitigates carbon emissions of transport sector in all quantile groups except for quantile group-2.

#### References

Arshed, N., Kalim, R., Iqbal, M., & Shaheen, S. (2022). Role of Real Sector and HDI: Does Competitiveness Contribute? *Journal of the Knowledge Economy*, 1-27. <https://doi.org/10.1007/s13132-022-00997-w>

Arshed, N., Munir, M., & Iqbal, M. (2021a). Sustainability assessment using STIRPAT approach to environmental quality: an extended panel data analysis. *Environmental Science and Pollution Research*, 28(14), 18163-18175. <https://doi.org/10.1007/s11356-020-12044-9>

Arshed, N., Sardar, M. S., & Iqbal, M. (2021b). Can efficient transport moderate real sector productivity? *Competitiveness Review: An International Business Journal*. <https://doi/10.1108/CR-01-2021-0002/full/html>

Aydođan, B., & Vardar, G. (2020). Evaluating the role of renewable energy, economic growth and agriculture on CO2 emission in E7 countries. *International Journal of Sustainable Energy*, 39(4), 335-348. <https://doi/full/10.1080/14786451.2019.1686380>

Azam, M., Hunjra, A. I., Bouri, E., Tan, Y., & Al-Faryan, M. A. S. (2021). Impact of institutional quality on sustainable development: Evidence from developing countries. *Journal of Environmental Management*, 298, 113465. <https://doi.org/10.1016/j.jenvman.2021.113465>

Bakhsh, S., Yin, H., & Shabir, M. (2021). Foreign investment and CO2 emissions: do technological innovation and institutional quality matter? Evidence from system GMM approach. *Environmental Science and Pollution Research*, 28(15), 19424-19438. <https://doi.org/10.1007/s11356-020-12237-2>





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Balsalobre-Lorente, D., Driha, O. M., Halkos, G., & Mishra, S. (2022). Influence of growth and urbanization on CO2 emissions: The moderating effect of foreign direct investment on energy use in BRICS. *Sustainable Development*, 30(1), 227-240. <https://doi/abs/10.1002/sd.2240>

Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of business and psychology*, 29(1), 1-19. <https://doi.org/10.1007/s10869-013-9308-7>

Fang, K., Li, C., Tang, Y., He, J., & Song, J. (2022). China's pathways to peak carbon emissions: New insights from various industrial sectors. *Applied Energy*, 306, 118039. <https://doi.org/10.1016/j.apenergy.2021.118039>

Feng, Y., & Wu, H. (2022). How does industrial structure transformation affect carbon emissions in China: The moderating effect of financial development. *Environmental Science and Pollution Research*, 29(9), 13466-13477. <https://doi.org/10.1007/s11356-021-16689-y>

Gao, Y., Li, M., Xue, J., & Liu, Y. (2020). Evaluation of effectiveness of China's carbon emissions trading scheme in carbon mitigation. *Energy Economics*, 90, 104872. <https://doi.org/10.1016/j.eneco.2020.104872>

Godil, D. I., Sharif, A., Agha, H., & Jermsittiparsert, K. (2020). The dynamic nonlinear influence of ICT, financial development, and institutional quality on CO2 emission in Pakistan: new insights from QARDL approach. *Environmental Science and Pollution Research*, 27(19), 24190-24200. <https://doi.org/10.1007/s11356-020-08619-1>

Godil, D. I., Sharif, A., Ali, M. I., Ozturk, I., & Usman, R. (2021). The role of financial development, R&D expenditure, globalization and institutional quality in energy consumption in India: New evidence from the QARDL approach. *Journal of environmental management*, 285, 112208. <https://doi.org/10.1016/j.jenvman.2021.112208>

Gyamfi, B. A., Onifade, S. T., Nwani, C., & Bekun, F. V. (2022). Accounting for the combined impacts of natural resources rent, income level, and energy consumption on environmental quality of G7 economies: a panel quantile regression approach. *Environmental Science and Pollution Research*, 29(2), 2806-2818. <https://doi.org/10.1007/s11356-021-15756-8>

Honegger, M., Michaelowa, A., & Roy, J. (2021). Potential implications of carbon dioxide removal for the sustainable development goals. *Climate policy*, 21(5), 678-698. <https://doi/full/10.1080/14693062.2020.1843388>

Hussain, M., Ye, C., Ye, C., & Wang, Y. (2022). Impact of financial inclusion and infrastructure on ecological footprint in OECD economies. *Environmental Science and Pollution Research*, 29(15), 21891-21898. <https://doi.org/10.1007/s11356-021-17429-y>

Khan, Z., Ali, S., Dong, K., & Li, R. Y. M. (2021). How does fiscal decentralization affect CO2 emissions? The roles of institutions and human capital. *Energy Economics*, 94,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Nguyen, X. P., Hoang, A. T., Ölçer, A. I., & Huynh, T. T. (2021). Record decline in global CO<sub>2</sub> emissions prompted by COVID-19 pandemic and its implications on future climate change policies. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 1-4. <https://doi/full/10.1080/15567036.2021.1879969>

Sardar, M. S., Asghar, N., & Rehman, H.u. (2022). Moderation of competitiveness in determining environmental sustainability: economic growth and transport sector carbon emissions in global perspective. *Environment, Development and Sustainability*, 1-23. <https://doi.org/10.1007/s10668-022-02771-z>

Sardar, M.S., & Rehman, H.u. (2022). Transportation moderation in agricultural sector sustainability — a robust global perspective. *Environmental Science and Pollution Research*, 1-16. <https://doi.org/10.1007/s11356-022-20097-1>

Sasaki, N., Myint, Y. Y., Abe, I., & Venkatappa, M. (2021). Predicting carbon emissions, emissions reductions, and carbon removal due to deforestation and plantation forests in Southeast Asia. *Journal of Cleaner Production*, 312, 127728. <https://doi.org/10.1016/j.jclepro.2021.127728>

Sun, H., Edziah, B. K., Sun, C., & Kporsu, A. K. (2022). Institutional quality and its spatial spillover effects on energy efficiency. *Socio-Economic Planning Sciences*, 83, 101023. <https://doi.org/10.1016/j.seps.2021.101023>

Swain, R. B., & Karimu, A. (2020). Renewable electricity and sustainable development goals in the EU. *World Development*, 125, 104693. <https://doi.org/10.1016/j.worlddev.2019.104693>

Usman, M., & Jahanger, A. (2021). Heterogeneous effects of remittances and institutional quality in reducing environmental deficit in the presence of EKC hypothesis: a global study with the application of panel quantile regression. *Environmental Science and Pollution Research*, 28(28), 37292-37310. <https://doi.org/10.1007/s11356-021-13216-x>

Wang, C., Lim, M. K., Zhang, X., Zhao, L., & Lee, P. T. W. (2020). Railway and road infrastructure in the Belt and Road Initiative countries: Estimating the impact of transport infrastructure on economic growth. *Transportation Research Part A: Policy and Practice*, 134, 288-307. <https://doi.org/10.1016/j.tra.2020.02.009>

Wang, M., Arshed, N., Munir, M., Rasool, S. F., & Lin, W. (2021). Investigation of the STIRPAT model of environmental quality: a case of nonlinear quantile panel data analysis. *Environment, Development and Sustainability*, 1-16. <https://doi.org/10.1007/s10668-020-01165-3>

Wang, Q., & Han, X. (2021). Is decoupling embodied carbon emissions from economic output in Sino-US trade possible? *Technological Forecasting and Social Change*, 169, 120805. <https://doi.org/10.1016/j.techfore.2021.120805>



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Wang, Q., & Zhang, F. (2021). The effects of trade openness on decoupling carbon emissions from economic growth—evidence from 182 countries. *Journal of cleaner production*, 279, 123838.

Wang, Z., Pham, T. L. H., Sun, K., Wang, B., Bui, Q., & Hashemizadeh, A. (2022). The moderating role of financial development in the renewable energy consumption-CO<sub>2</sub> emissions linkage: The case study of Next-11 countries. *Energy*, 124386. <https://doi.org/10.1016/j.energy.2022.124386>

WDI. (2022). World Development Indicators, World Bank. <https://databank.worldbank.org/source/world-development-indicators>

Wei, L., & Ullah, S. (2022). International tourism, digital infrastructure, and CO<sub>2</sub> emissions: fresh evidence from panel quantile regression approach. *Environmental Science and Pollution Research*, 29(24), 36273-36280. <https://doi.org/10.1007/s11356-021-18138-2>

Wei, X., Qiu, R., Liang, Y., Liao, Q., Klemeš, J. J., Xue, J., & Zhang, H. (2022). Roadmap to carbon emissions neutral industrial parks: Energy, economic and environmental analysis. *Energy*, 238, 121732. <https://doi.org/10.1016/j.energy.2021.121732>

Weimin, Z., Sibt-e-Ali, M., Tariq, M., Dagar, V., & Khan, M. K. (2022). Globalization toward environmental sustainability and electricity consumption to environmental degradation: does EKC inverted U-shaped hypothesis exist between squared economic growth and CO<sub>2</sub> emissions in top globalized economies. *Environmental Science and Pollution Research*, 1-11. <https://doi.org/10.1007/s11356-022-20192-3>

Wen, F., Wu, N., & Gong, X. (2020). China's carbon emissions trading and stock returns. *Energy Economics*, 86, 104627. <https://doi.org/10.1016/j.eneco.2019.104627>

Xie, Z., Wu, R., & Wang, S. (2021). How technological progress affects the carbon emission efficiency? Evidence from national panel quantile regression. *Journal of Cleaner Production*, 307, 127133. <https://doi.org/10.1016/j.jclepro.2021.127133>

Xiong, F., Zang, L., Feng, D., & Chen, J. (2022). The influencing mechanism of financial development on CO<sub>2</sub> emissions in China: double moderating effect of technological innovation and fossil energy dependence. *Environment, Development and Sustainability*, 1-23. <https://doi.org/10.1007/s10668-022-02250-5>

Xu, Z., Das, D. K., Guo, W., & Wei, W. (2021). Does power grid infrastructure stimulate regional economic growth? *Energy Policy*, 155, 112296. <https://doi.org/10.1016/j.enpol.2021.112296>

Yu, Y., Li, S., Sun, H., & Taghizadeh-Hesary, F. (2021). Energy carbon emission reduction of China's transportation sector: an input–output approach. *Economic Analysis and Policy*, 69, 378-393. <https://doi.org/10.1016/j.eap.2020.12.014>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Zakari, A., Khan, I., Tan, D., Alvarado, R., & Dagar, V. (2022). Energy efficiency and sustainable development goals (SDGs). *Energy*, 239, 122365. <https://doi.org/10.1016/j.energy.2021.122365>

Zhang, S. (2019). Environmental Kuznets curve revisit in Central Asia: the roles of urbanization and renewable energy. *Environmental Science and Pollution Research*, 26(23), 23386-23398. <https://doi.org/10.1007/s11356-019-05600-5>

Zhang, W., Li, J., Li, G., & Guo, S. (2020). Emission reduction effect and carbon market efficiency of carbon emissions trading policy in China. *Energy*, 196, 117117. <https://doi.org/10.1016/j.energy.2020.117117>

Zhang, X., Jiao, K., Zhang, J., & Guo, Z. (2021). A review on low carbon emissions projects of steel industry in the World. *Journal of Cleaner Production*, 306, 127259. <https://doi.org/10.1016/j.jclepro.2021.127259>

Zheng, H., Hu, J., Wang, S., & Wang, H. (2019). Examining the influencing factors of CO2 emissions at city level via PQR: evidence from 102 Chinese cities. *Applied Economics*, 51(35), 3906-3919. <https://doi/full/10.1080/00036846.2019.1584659>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Services Sector and Environment Quality – Moderating Role of Renewable Energy Consumption for Selected HDR Listed Countries**

Dr. Muhammad Shahid Hassan

University of Management & Technology, Lahore

Mubasher Iqbal

University of Education, Lower Mall, Lahore

Dr. Noman Arshed

University of Education, Lower Mall, Lahore

### **ABSTRACT**

Considering environmental deterioration, a worldwide emerging problem, this study aims to find out the impact of services sector on environment quality in Environmental Kuznets Curve (EKC) perspective. This study is based upon secondary data from 1995 to 2021 for different development wise categorized country groups according to Human Development Report (HDR) on the basis of Human Development Index (HDI). Estimated results using feasible generalized least square (FGLS) have confirmed inverted U-shaped for very high HDI and medium HDI and U-shaped EKC for low HDI countries. While in high HDI group, EKC is not validated. Moreover, this study has used renewable energy consumption as moderator of EKC and confirmed the downward shifting. However, role of financial development and technological innovations are contributing to environment quality differently in these development groups.

**KeyWords:** Environment Quality, Renewable Energy, EKC

### **Introduction**

Once there was a time period when human was enjoying clean and dirt-free environment. It was moment in time before industrial revolution. In the present time period, the world has many emerging problems, among them environment deterioration is also one<sup>1</sup> in the context of air pollution. It can cause disease of the eyes, throat and nose, it is not end it can also cause coughing and some other problems like asthma and lung cancer. In this regard industry is playing very important role because it directly increases air pollution by releasing carbon emissions. Another problem in this world which is growing very rapidly, that is global warming. It means the temperature of this world is increasing day by day<sup>2</sup>. This deterioration in the environment is also caused to increase other problems. To understand it we need to know that in human body, nervous system plays a central role without it human body become totally prevent. According to latest researches it has observed air pollution directly affects the central nervous system of





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

human body (Amitava, 2016). There is also a heartbreaking side of carbon emissions it is caused for increasing mortality and reduced life expectancy from a wide range of diseases (Martinez et al., 2018) around the globe.

In the light of this discussion, we can say the environment of the world is suffering from many pollutant elements. But most probably a reason behind this deterioration in the environment is the rapid emissions in the carbon dioxide and other greenhouse gases (Anderson et al., 2016). Now this climate change has converted into a major risk facing mankind, and humans are themselves responsible for it. Basically, environmental deterioration is a cost of economic development, which humans are paying (Franchini et al., 2015).

It is observed that carbon dioxide emissions grew by 1.4% in 2017, reaching a historic high of 32.5 GT (gigatonnes) and it is a universal increase and it an alarming stage, though this damage of environment isn't universal but this increase has observed in major economies<sup>3</sup>. There are also some efforts are being made for the reduction in carbon dioxide emissions. So, the extent of current efforts of slowing down and overturning the environment corrosion can be evaluated from United Nations 8<sup>th</sup> millennium development goal and 13<sup>th</sup> to 15<sup>th</sup> sustainable development goals (Darbo, 2010)<sup>4</sup>. In this regard it is also important to know that energy-related carbon dioxide emission in 2017 regarding climate change is a solid caution for global efforts to confront and it is also a major cause to deteriorate environment.

With respect to environment, WHO (World Health Organization) is playing its role for decreasing the level of carbon emissions worldwide, and in this regard many conferences are also being made. If we talk about the air pollution, 92% of the people are bound to breathe in the polluted air and it caused about 6.5 million deaths annually<sup>5</sup>. This kind of economic development is standing on the human lives rather creating welfare for them. On the whole it is a huge cost that humans are paying on daily basis. Air pollution directly related to the economic activities because it has inverse relationship (Bai et al., 2017), basically it affects the consumer's purchasing power as well as economic prosperity along with other health issues<sup>6</sup>. On the other hand, air pollution is also responsible for other economic issued it is caused to reduction in tourist trade, fruits crops, life expectancy, economic prosperity (Faith, 2012). It is also a reality that air pollution is also caused to increase in the mortality rate<sup>7</sup>.

Basically, increase in economic activities caused to increase in carbon dioxide and it is caused to injure the environment (Cherniwchan, 2012; Dadgar & Nazari, 2016; Wang & Liu, 2017). The

---

<sup>3</sup> International Energy Agency, Global Energy & CO2 Status Report 2017





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

relationship between environment and economic activity can be better comprehended with the help of Environmental Kuznets Curve which is also known as EKC. The concept of EKC is based on Kuznets Curve used in the development economics (Kuznets, 1955; 1979). According to Kuznets Curve development at the initial stage increase the income inequality but after the specific level of development the income inequality starts to reduce the income inequality (Thrillwall & Pacheco-Lopez, 2015; Todaro & Smith, 2015). The same logic is also being discussed in EKC theory (Dasgupta et al., 2002), the difference is only this in EKC there is relation between economic activity and environment quality. According to EKC, at the initial stage of industry it is responsible to deteriorate the environment, but later when industry stables it becomes environment friendly. The concept of EKC is tested widely by the researchers so; in the literature there are many studies which indicate the existence of EKC (Lorente & Herranz, 2016; Lapinskienė, Peleckis, & Nedelko, 2017; Sinha & Bhatt, 2017; Och, 2017; Liu & Wang, 2017).

While there are many studies which worked on EKC but their selected instrument for representing environment quality is different. The mostly used indicator by empirical studies is carbon dioxide emissions to measure the environment quality (Dinda, 2004; Kahathu, 2006; Aslanidis & Iranzo, 2009; Prieur, 2009; Drabo, 2010; Iwata, Okada, & Samreth 2010; He & Richard, 2010; Nasir & Rehman 2011; Ahmed & Long, 2012; Taguchi, 2012; Elgin & Öztunalı 2012; Shahbaz et al., 2013; Sulaiman, Azman, & Saboori, 2013; Ahmed & Qazi, 2013; Osabuohienab, Efobic, & Gitau, 2014; Baiardi, 2014; Chow & Li, 2014; Vasanth et al., 2015; Rabbi, Akbar, & Kabir, 2015; Shahbaz et al., 2015; Beck & Joshi, 2015; Wolde, 2015; Zaman et al., 2016; Monserrate, Quiroz, & Borja, 2016; Çeken & Sinan, 2016; Sinha & Bhatt, 2016, 2017; Alam et al., 2016; Ahmed & Bashir, 2016; Jošić, Jošić, & Janečić, 2016; Adu & Denkyirah, 2017; Liu & Wang, 2017; Kılıç & Balan, 2018; Allard et al., 2018; Atwi et al., 2018). The commonly used indicator for economic activity is industrial value addition and GDP. The issue with GDP is that it also includes other type of activities like agriculture and services etc. so it might not provide a clear image of effect of industrial growth. This study has been set to test the services channel of EKC. Basically, to improve the environment quality the EKC model can play a very important role especially for policy makers.

EKC related to services is a unique idea, it is also a reality that services are affecting the environment directly. For example, increase in services means more offices and more offices means more heat generated out of air conditioners, refrigerators and electricity generators as well as garbage and waste materials which may include organic / food, stationery and chemicals. So, we can say speedy growth in the services sector results in deteriorating the environment, the interesting thing is this concept also attains Kuznets influence that's why it is called services environment Kuznets curve. In relation to this curve, we can say at initial level of services sector it harms the environment very badly but after the specific level of maturity it becomes environment friendly. Furthermore, prove of the existence services EKC is the main contribution of this study (Alcántara & Padilla, 2009; Butnar & Llop, 2011; Och 2017).

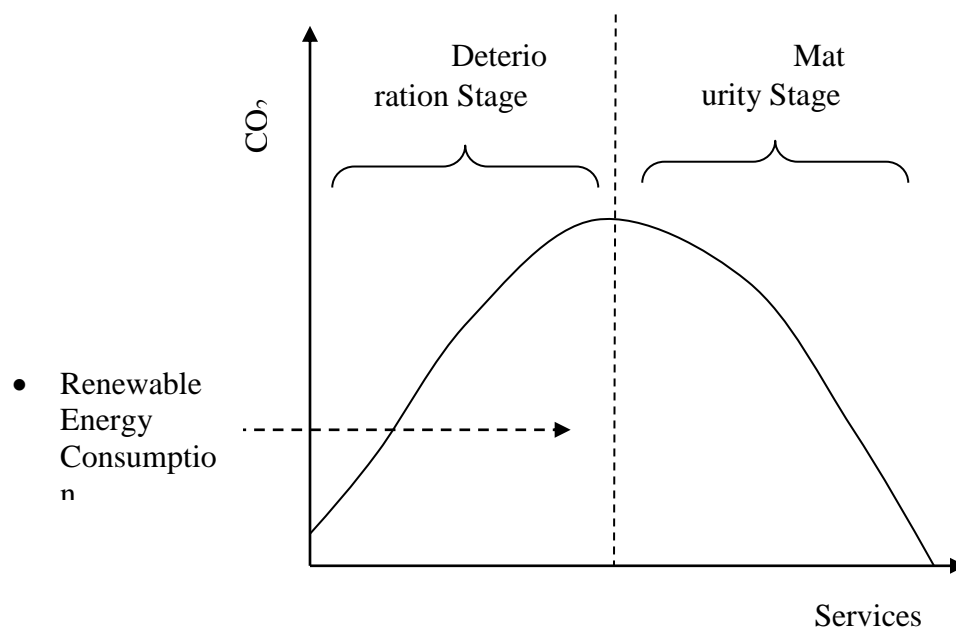
Keeping in view the alarming situation of this world regarding environment this study attempts to explore the existence of services environmental Kuznets curve within the sampled countries and it is also a main objective. Secondly it is also veracity that every control variable has

different impact so it is an objective that; is every control variable has an impact on the optimal value (tipping point)? Whether these control variables control variables changing it or not to check for robustness. After detailed view of introduction, the next is theoretical model of the study where the meaning of EKC is discussed. Chapter 2 has presented the historical and current literature in the arena of EKC. Later on, there is chapter 3 of data and methodology. After that there is discussion and concluding remarks of the study to end up. In the end there is also a suitable policy recommendation in the light of estimated results. Last but not the least there is a references section of this study.

### Theoretical Model

Basically, the idea of EKC is related to “*Kuznets Curve*” regarding development, according to this curve when in economy development takes place it leads to increase income inequality, later on development leads to decrease income inequality (Kuznets, 1955, 1979). The same idea is also being hypothesized in this research analysis the EKC. This theory is based upon a reality, “grow today and clean tomorrow” we can say, when a country needs to achieve economic development the main is just on it rather than on its consequences. But when a country undergoes sustainable economic development now there is a need to improve all these things which prove the cost of development, in this context environment is also one. So, after dedicated attention the environment deterioration can be overcome, this is the main reality behind the EKC model. There are several studies which has empirically proved the whole discussion (Çeken & Sinan, 2016; Alam et al., 2016; Monserrate et al., 2016; Zaman et al., 2016; Ahmed & Bashir, 2016; Waluyo & Terawki, 2016; Lorente & Herranz, 2016; Lapinskiene et al., 2017; Sinha & Bhatt, 2017; Och, 2017; Liu & Wang, 2017; Armeanu et al., 2018; Atwi et al., 2018).

Figure 7- Theoretical model





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Figure 1 is showing the theoretical outlook of EKC, it is an inverted-U curve which is presenting the relationship between service sector development and environment. So, at start services sector is responsible for deteriorating the environment but after it reaches at maturity level it becomes environment friendly. In this regard if we utilize some strategies like globalization, urbanization, population density and forest the point of maturity can be achieve as early as possible. We can say, these changeable objects are also related to the environment (Steger & Egli, 2007; Bernard, et al., 2015; Arshed & Iqbal, 2017). It is hypothesized that through utilization of renewable energy consumption in services sector this curve can be moderated towards environmental betterment.

### Literature Review

The concept of *Environmental Kuznets Curve* is widely tested in the literature and there are so many studies which have approved its existence. At initial level Grossman and Kruger (1991) has started work on it later followed by Selden and Song (1994) and Stern et al. (1996) after that lots of work can be seen on the subject matter. In the literature the EKC can classify into many categories like; panel data EKC, time series EKC, N-shaped EKC, U-Shaped EKC. While there are also some studies which are not in the favor of EKC because their estimations are unable to confirm it. The literature is full of the studies regarding EKC that's why some tried to combine the previous studies regarding EKC, in this way every researcher can obtain related material only by analyzing one study.

Usually the EKC has inverted U-Shaped and in the literature there are many examples of it, if we talk about the EKC in the panel data so many studies cover it; Perman and Stern (2003) for the panel data of 74 countries from the period 1960 to 1990; Marquart-Pyatt (2004) for all developing countries around the world; Nahman and Antrobus (2005) for Southern African Customs Union (SACU) region from 1981 to 1997; Kahathu (2006) based upon the 84 developing and developed countries in the period 1960 to 2000; Song et al. (2008) for provincial data of china from 1985 to 2005; Granda et al. (2008) for the panel data of 46 countries in the period 1980 to 2000; Aslanidis and Iranzo (2009) using the panel data of non-OECD countries in the time period 1971 to 1997; Figueroa and Pastèn (2009) for 73 high and low income countries period 1960 to 1990; Suocheng and Zehong. (2010) for the panel data of 30 provinces of China from 1985 to 2007; Tevie et al. (2011) for the panel data of 48 states of US, Qu and Zhang, (2011) has used panel data set of 36 countries over a 20-year period; Cherniwchan (2012) for the penal data of 157 countries 1970 to 2000; Taguchi (2012) Panel Data of 19 ASEAN countries from 1950 to 2009; Duarte et al. (2013) on the panel data of 65 countries in the time period 1962 to 2008; Lora et al. (2013) on the information of 707 towns during of Colombia 2008 to 2011; Mao et al. (2013) for 11 countries of Ningxia from 1990 to 2008.

Kacar and Kayalica (2014) for the panel data of 234 countries from 1850 to 1990; Lapinskienė et al. (2014) for the panel data of 27 EU (European Union) countries; Chow and Li (2014) using the panel data of 132 countries form 1992–2004; Baiardi (2014) for the panel data of 20 regions of



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Italy from 1980 to 2011; Osabuohien et al. (2014) on the panel data of 50 African countries in the time period 1995 to 2010; Thompson (2014) for the panel data of 30 countries in the time period 1980 to 2000; Ahangaril and Moradi has estimated EKC using five middle income countries namely China, Iran, Malaysia, Thailand and Turkey, from the period 1990 to 2011. Vasanth et al. (2015) for the panel data 191 companies of India from 2004 to 2014; Beck and Joshi (2015) for the panel data of OECD and Asia and African countries from 1980 to 2008.

Lorente and Herranz (2016) for panel data of 17 Organization for Economic Cooperation and Development (OECD) countries in the period 1990 to 2012; Çeken and Sinan (2016) for the panel data of Transition Economies (Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) in the time period 1993 to 2010; Joshi and Beck (2016) compare OECD countries with the non-OECD regions of Latin America, Asia, and Africa from 1990 to 2007; Zaman et al. (2016) on panel data of East Asia & Pacific, European Union and High income OECD and Non-OECD countries as a comparative analysis in the period 2005 to 2013; Lapinskiene et al. (2017) for panel data of 20 countries of the EU in the period 2006 to 2013; Armeanu et al. (2018) on the panel data of 28 countries during the period 1990 to 2014; Atwi et al. (2018) on the panel data of 182 around the world countries during the period 1992 to 2011.

There are also many studies which has used times series data to prove the existence of EKC; Kunnas and Myllyntaus (2007) on the time series data of Finland from 1800 to 2003; Iwata et al. (2010) for time series data of France from 1960 to 2003; Nasir and Rehman (2011) for the time series data of Pakistan in the time period 1972 to 2008; He and Richard (2010) time series data for Canada from 1948 to 2004; Elgin and Öztunalı (2012) on the time series data of Turkey from the time period 1950 to 2009; Ahmed and Long (2012) for Pakistan 1971-2008; Sulaiman et al. (2013) for Malaysia from 1980-2004; Ahmed and Qazi (2013) for the time series data of Magolia from 1980 to 2010; Lapinskiene et al. (2013) for time series data for Baltic States from 1995-2008; Shahbaz et al. (2013) period of 1970 to 2010 for Turkish economy; Shahbaz et al. (2015) for time series data from 1971 to 2008 for Portugal; Rabbi et al. (2015) for the time series data of Bangladesh from 1972 to 2012.

Wolde (2015) for time series data from 1970 to 2011 for Ethiopia; Alam et al. (2016), time series data for the period 1970 to 2012 for India, Indonesia, China, and Brazil so there is existence of EKC except India; Monserrate et al. (2016) for time series data of Iceland in the time period 1960 to 2010; Waluyo and Terawki (2016) for the time series data of Indonesia from 1962 to 2016; Ahmed and Bashir (2016) for time series data from 1971 to 2012 for Pakistan; Sinha and Bhatt (2017) on the time series data of India from 1960 to 2012; Och (2017) for the time series data of Mongolia from 1981-2012; Liu and Wang (2017) time series data of China from the period 1992 to 2013; Gu et al. (2017) for the time series data of China from 2002 to 2014.

On the other hand in the literature many studies confirm the cubic or the N-Shaped existence of EKC among them; Lapinskiene et al. (2014) for the panel data of 27 EU (European Union) countries capture N-Shaped EKC, Beck and Joshi (2015) for the panel data of OECD and Asia and African countries from 1980 to 2008, Sinha and Bhatt (2016) proved N-shaped EKC for the time series data of India from the time peroid 1960 to 2010, Vlontzos et al. (2017) for panel data of 28 EU countries for the period 1999 to 2012, Allard et al. (2018) for panel data of 74 countries





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

over the period of 1994–2012, Kılıç and Balan, 2018 for panel data of 151 countries for the period 1996 to 2010. Rather than inverted U-shaped EKC there are also several studies in which U-shaped EKC has explored. The idea of U-shaped EKC presents that at the initial level of economic activity the level of carbon dioxide emissions lows down but after a specific level it starts to deteriorate the environment. This idea has explored by; Ahmed and Qazi (2013) on the time series data of Mongolia from 1980 to 2010; Twerefou, Poku, and Bekoe (2016) on the time series data of Ghana from 1970 to 2010; Destek, Ulucak and Dogan (2018) on the annual data of EU countries from 1980 to 2013.

In the existing literature there are various studies which aren't in the favor of EKC; Johanson and Kristrom (2007) for Sweeden between 1900 and 2002, Liu (2008) for the provincial data of China in the period of 2001 to 2006; Aslanidis and Iranzo (2009) for the panel data of non-OECD countries over the period 1971 to 1997; Kubicová (2014) for the time series data of Slovak Republic from the years 1993 to 2011; Jošić et al. (2016) for the time series data of Croatia in the period from 1990 to 2013; Adu and Denkyirah (2017) for the panel data of West African countries which are similar with respect to income status from 1970 to 2013; Gill, Viswanathan, and Hassan (2017) describe the concept of EKC and relate it with the environment without any estimation; Aasar and Hanafy (2018) on the annual data for Egypt during the period 1971 to 2012.

Meanwhile there are also some other ways to prove the concept of EKC, in this regard it could be said that in the literature some researchers also tried to combine previous studies on the subject matter these are; Ginevičius et al. (2017) and Stern (2004), because it is a contribution for other researchers to have all stuff at the same place. On the other hand, for mathematical based researchers there is model of the elasticity of substitution and environment these are; Dinda (2004), Bousquet and Favard (2005), Johansson and Kriström (2007), Prieur (2009), Kijima et al. (2010), Shibayama and Fraser (2014). Moreover, in the literature some studies tried to build a theoretical relationship for the environmental deterioration with the help of EKC these are; Kaika and Zervas (2013), Sarkodie and Strezov (2019).

Apart from above discussion there are many other variables which are responsible to impinge on environment among them urbanization, people density, forest and globalization are considered to be closely related. First of all, urbanization, because it is directly related to the environment it can affect the environment both negatively and positively; Joshi and Beck (2016). Basically, urbanization refers to rapidly migration from rural areas to urban areas and it caused for damaging environment; Rai (2017), Beck and Joshi (2015), Shahbaz et al. (2015), Srivanit et al. (2012), Bhuvandas (2012). But in the literature, there is combine evidence, some studies suggest urbanization can affect environment both negatively and positively; Rafiq et al. (2016), Sadorsky (2014), but it is also evidence that urbanization refers to protect the environment; Och (2017), Mahmut and Sinan (2016).

Similarly, population density is also directly related to the environment; basically, it means number of people in square area. If this area is decreasing per person, it means that environment is damaging and ratio of carbon dioxide is increasing in environment. In the literature there are many studies in the support of this argument that population density is damaging the environment; Ray and Ray (2011), Ahmed and Long (2012), Lora et al. (2013), Kacer and





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Kayalica (2014), Audi and Ali (2016), Wang and Liu (2017), Adu and Denkyirah (2017). But in the literature, there is also an example of both positive and negative effect of population density on environment; Joshi and Beck (2015, 2016). If talk about globalization it means the whole world is performing like one country because technology has removed the restrictions of borders and trade has played a significant role in this regard. It can enhance and prove valuable for the environment; Nasir and Rehman (2011), Ahmed and Long (2012), Cherniwchan (2012), Shahbaz et al. (2013), Kacer and Kayalica (2014), Osabuohien et al. (2014), Rafiq et al. (2016), Twerefou et al. (2016), Destek et al. (2018). In the literature there are also some studies which are presenting opposite representation. According to them globalization is responsible for damaging the environment and it is caused to increase in pollutant factors; Ahmed and Qazi (2013), Wolde (2015), Ahmed and Bashir (2016), Adu and Denkyirah (2017), Kılıç and Balan (2018).

This study is based upon panel data of 80 countries with respect to different development groups, so there are several studies in the literature which are utilizing panel models to prove the existence of EKC these are; Perman and Stern (2003) has proved the existence of EKC by applying the panel cointegration; Marquart-Pyatt (2004) tried to his estimate model with the help of panel ordinary least square method; Kahathu (2006) has also estimated his model ordinary least square method; Aslanidis and Iranzo (2009) has estimated this model with the help of panel smooth transition regression models (PSTR); Figueroa and Pastèn (2009) have estimated their model by random coefficient regression model; Song et al. (2008) has proved the existence of EKC with the help of panel ordinary least square method; Granda et al. (2008) has applied fixed effect and random effect method to check the existance of EKC in their selected data; Suocheng and Zehong (2010) has applied the panel cointegration to estimate the existence of EKC; Tevie et al. (2011) has estimated their model with the help of ordinary least squares, spatial error, and spatial lag models; Qu and Zhang (2011) has applied feasible generalized least square method to check the existence of EKC; Cherniwchan (2012) has proved the existence of EKC by applying least squares method with Dummy Variables (LSDV); Ahangari and Moradi (2011) has also appiles generalized least square method to estimate the model. Taguchi (2012) has applied Generalized Method of Moments (GMM) to capture the existence of EKC; Mao et al. (2013) has estimated his model of EKC with the help of curvature vector; Duarte et al. (2013) has applied Panel Smooth Transition Regression (PSTR) to check the existence of EKC; Lora et al. (2013) has applied fixed effect and random effect to check the existence of EKC in their study; Kacar and Kayalica (2014) have also applied ordinary least square method to capture the existence of EKC.

Lapinskienė et al. (2014) has also estimated their model with the help of panel ordinary least square method; Chow and Li (2014) have also estimated his model by applying ordinary least square method; Baiardi (2014) has estimated his model with the help of fixed effect to check the existence of EKC; Osabuohien et al. (2014) has applied the cointegration method to estimate EKC model; Vasanth et al. (2015) has also used ordinary least square method to capture EKC; Beck and Joshi (2015) has also applied Generalized Method of Moments (GMM) to capture the existence of EKC; Lorente and Herranz (2016) have also applied panel ordinary least square method for EKC presentation; Mahmut and Sinan (2016) has applied Panel Smooth Transition Regression Analysis for checking the existence of EKC; Joshi and Beck (2016) has also applied



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Generalized Method of Moments (GMM) to capture the existence of EKC; Zaman et al. (2016) has applied two-stage least square regression to estimate EKC; Lapinskiene et al. (2017) has applied fixed effect to check the existence of EKC; Adu and Denkyirah (2017) has applied fixed effect and random effect to check the existence of EKC in their model; Thompson (2017) has applied Pooled Mean Group (PMG) method to check the existence of EKC. Armeanu et al. 2018 has proved the existence of EKC by applying pooled ordinary least square method along with fixed effects method; Atwi et al. (2018) has applied pooled ordinary least square method along with fixed effect and random effect to prove the existence of EKC.

In the literature there is no example that anyone has explored the existence of EKC on a data which is classified with respect to human development. In simple words this study covers the environment about every category of development (very high HDI, high HDI, low HDI and very low HDI). Moreover, all the above discussed studies are about EKC but these studies aren't covering the whole subject. Secondly the above discussed studies have used GDP and GDP square to check the existence of EKC. Och (2017) tried to capture the impact of industry, agriculture and services on environment but he has utilized all these three instruments as an explanatory variable. Theoretically it is incorrect because it could cause problem of multicollinearity, because he has also use GDP as an explanatory variable as well and all these three factors are also included in the calculation of GDP. So, in the existing literature also unable estimate the existence of EKC in these different aspects it is a gap in the literature. This study will recognize the separate effect services sector along with control variable.

## Data and Methodology

### Variables and Sample

This study is based on secondary source of data, below table 1 is showing the whole description of the variables which are being used in this study. So, to capture the environmental quality carbon dioxide emissions (CO<sub>2</sub>) is being used and its dependent variable. It is an unbalance panel data and all the variables are taken from the time period 1995 to 2021 of development wise countries across the globe based upon the availability of data. The countries are obtained using the definition proposed in human development report by United Nations Development Program (UNDP). There are four HDI groups (very high HDI, high HDI, low HDI and very low HDI) and all those countries are selected whose data was available. The list of all the countries which are being used in this study is in appendix (A1). All the variables which are being used in this study are defined along with the source in following table individually.

**Table 16 - Description of Variables**

Variable	Full form	Source
CO <sub>2</sub>	CO <sub>2</sub> Emission metric tons per capita	WDI
SV	Services value-added constant US Dollars	WDI
SV <sup>2</sup>	Square of services value-added constant US Dollars	WDI
TE	Total patent applications (resident and non-resident)	WDI
RE	Renewable energy consumption (percentage of total)	WDI
FD	Domestic credit to private sector by banks (percentage of GDP)	WDI



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Model and Estimation Approach

The square form which is being used in this model is presenting the non-linear effect of services on environment. These regression lines are estimated with the help of feasible generalized least square (FGLS) method. Basically, this method is used to avoid heteroskedasticity and autocorrelation (Acs et al., 2011; Tabak et al., 2011; Miller & Startz, 2018). One equation for services EKC is provided below, where  $\beta$ 's is presenting as the coefficients of each variable which are being regressed in the equation, further more  $\varepsilon$  is treated as the error term or disturbance of the model of the model (Galeotti, et al., 2009).

$$CO_{2it} = \beta_1 SV_{it} + \beta_2 SV_{it}^2 + \beta_3 RE_{it} + \beta_4 TE_{it} + \beta_5 FD_{it} + \beta_6 SV_{it} * RE_{it} + \beta_7 SV_{it}^2 * RE_{it} + \varepsilon$$

## Results and Discussion

### Descriptive Statistics

Table 2 is presenting descriptive statistics of the variables which are being used in the estimation. First of all, there is mean and then median which is also presenting the central value of the data after that minimum and the maximum value of each variable. The noticeable thing in this table is the value of mean and standard deviation, because the value of mean is greater than standard deviation in the case of every variable it means that every variable is under dispersed. On the other hand, Kurtosis value of the variables like industry, agriculture and forests is almost equal to 3 though others variables show that there are either too many (kurtosis > 3) or too few (kurtosis < 3) outliers in the data as compared to a normal distribution thus indicating cross sectional heteroskedasticity. It is indicating that this model should not be estimated with the help of pooled Ordinary Least Square because it assumes that all the cross sections are similar in each and every aspect. Below table is also showing except population density, forests and globalization all the variables are positively skewed.

Estimated results are presented in table 3 using FGLS technique. These results have confirmed inverted U-shaped relationship between services value addition and carbon emissions for very high HDI and medium HDI countries. While low HDI are reflecting U-shaped relationship. But this relationship does not hold in high HDI countries as the results are insignificant. Renewable energy consumption is reducing carbon emissions in very high and low HDI countries. While increasing in high and medium HDI countries. Technological innovations are responsible to decrease carbon emissions in very high HDI countries while increasing in other groups. Further financial development is increasing carbon emissions in all the development groups except low HDI. Figures are also presented to test the impact of renewable energy consumption as moderator. Figure 2 to 5 are reflecting moderating effect. Except medium HDI countries all countries are getting benefit from renewable energy consumption.

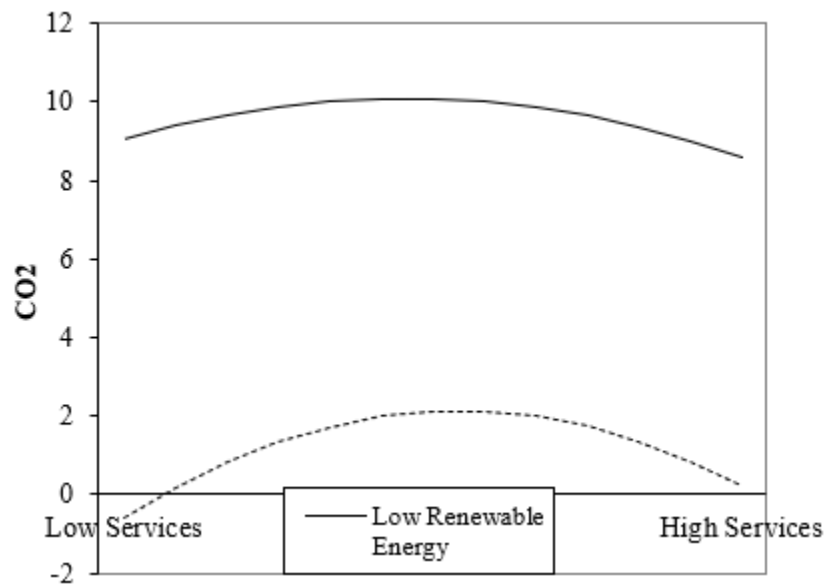
**Table 17 – Descriptive Statistics**

Stats	CO <sub>2</sub>	SV	RE	TE	FD
Mean	4.364	53.183	33.221	0.244	44.383
P <sub>50</sub>	2.517	53.651	23.920	0.058	32.854
SD	5.091	11.519	30.023	0.548	39.717
Min	0.000	9.685	0.000	0.000	0.000
Max	31.125	82.353	98.340	4.374	304.575
Skewness	1.920	-0.256	0.696	4.038	1.573
Kurtosis	7.355	3.003	2.142	21.545	5.969

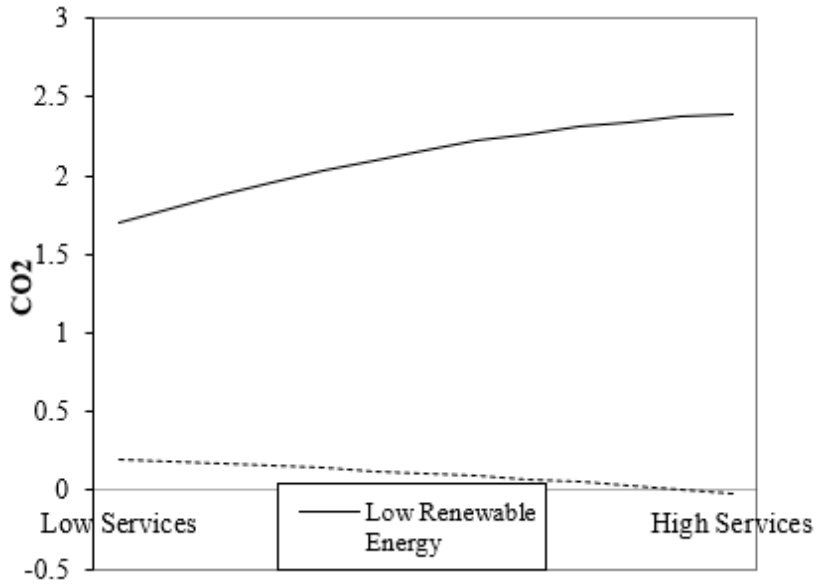
**Table 3 – FGLS Estimated Results**

Variables	Very High HDI		High HDI		Medium HDI		Low HDI	
	Coeff.	Prob.	Coeff.	Prob.	Coeff.	Prob.	Coeff.	Prob.
SV	0.410	0.000	0.064	0.061	0.116	0.000	-0.036	0.000
SV <sup>2</sup>	-0.004	0.000	-0.0004	0.214	-0.001	0.000	0.0005	0.000
RE	-0.335	0.004	0.004	0.811	0.025	0.000	-0.016	0.000
TE	-0.085	0.318	3.463	0.000	6.851	0.000	2.054	0.004
FD	0.002	0.000	0.011	0.000	0.005	0.000	-0.0006	0.191
SV*RE	0.007	0.068	-0.001	0.350	-0.001	0.000	0.0004	0.000
SV <sup>2</sup> *RE	-6e-05	0.060	5.29e-06	0.642	1.52e-05	0.000	-6.94e-06	0.000

**Figure 2 – Moderating effect in Very High HDI Countries**

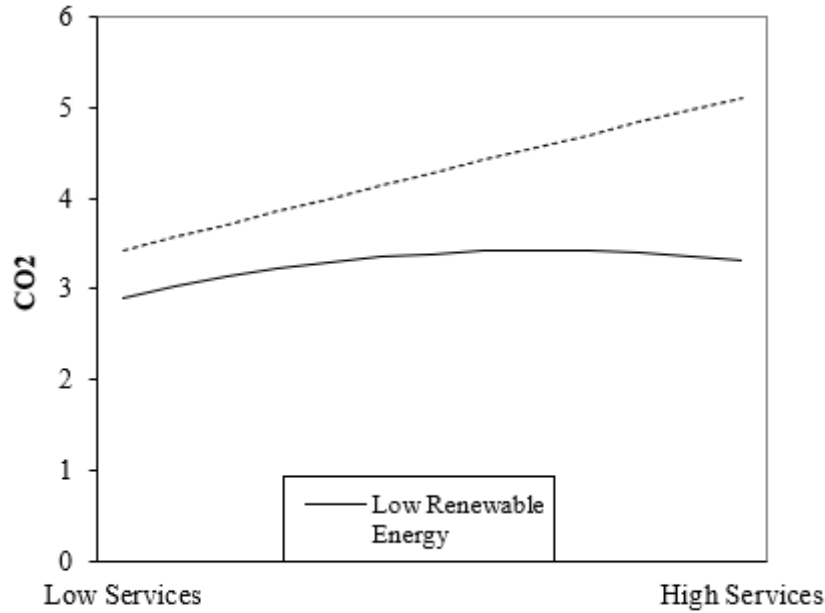


**Figure 3 – Moderating effect in High HDI Countries**

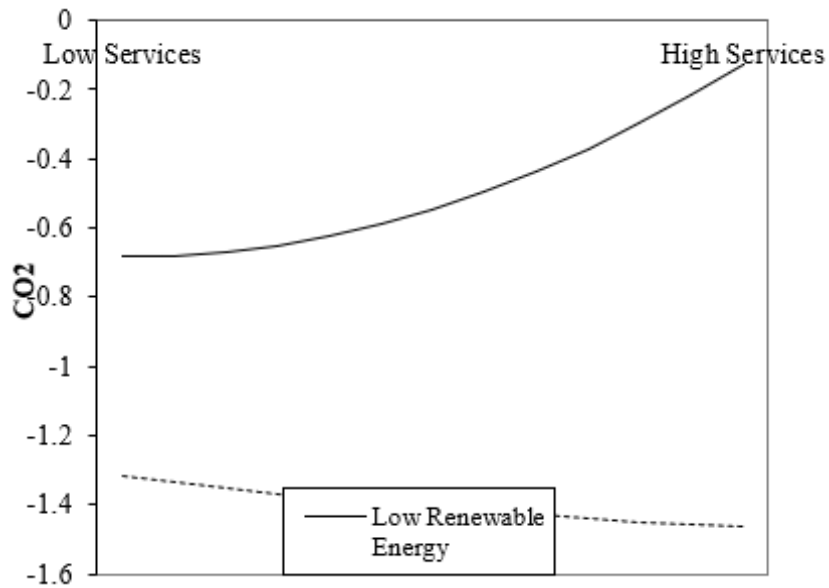


**Figure 4 – Moderating effect in Medium HDI Countries**





**Figure 5 – Moderating effect in Low HDI Countries**



**Conclusion and Policy Implication**

To conclude, it could be said that once there was a time period when everything was pure, neat and clean. It was a time when this world does not know about pollution, people were also



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

enjoying healthy and superb environment with a healthy life style. At present the world is suffering from many environmental problems among them high rate of carbon dioxide emission is also one. There are many scientific reasons behind it among them economic activities are also one, it means in every economy industry, agriculture and services sector is responsible to rapidly increase the emissions of carbon dioxide emissions.

The objective of this study to check the non-linear impact of services value added on carbon dioxide emission on selected HDI countries. Because in every economy these key sectors are responsible to damage the environment, by releasing the carbon dioxide. There are four HDI categories (very high, high, medium and low HDI) and there are twenty countries from each HDI group, so total eighty countries are being use. This study has proved the existence services EKC in all regression equations, it means that at first this sector is responsible to damage the environment but later on becomes environment friendly, due to their inverted-U shaped presentation. In order to estimate the existence of EKC in selected HDI countries FGLS model has used because this regression model is ideal to avoid heteroskedasticity and autocorrelation which are common econometric problems in panel data.

In the literature there are many studies which have proved the existence of industrial and agriculture EKC, but the uniqueness of this study is check the existence of services EKC because this part was not well covered by the economic researchers. Keeping in view that services sector is also a responsible to damage the environment this study tried to check its non-linear impact. At present time period services sector has lots importance not only at national level but at international level as well. The descriptive statistics are telling the role of service sector is not less than industry and agriculture especially in very high and high HDI countries so we can say this group is equally responsible for damaging the environment.

In this study there are four explanatory variables have used in this study (renewable energy consumption, technology and financial development) and there statistically significant results also confirms that these are also responsible to deteriorate the environment. The purpose is not to only prove that these variables are responsible to increase carbon dioxide emissions in selected countries, the purpose is also, how these variables can use to protect the environment. As the descriptive statistics are telling on average very high HDI countries are emitting more carbon dioxide as compare to other HDI counties so the improvement should be started from these countries first. After that improvement should come towards other county groups, and it is not tough job because it's an era of globalization and whole world is performing like a one county, because no economy is close.

The rapidly increasing urban population known as urbanization, it is because now there is a huge difference between the life standard of rural and urban areas that's why many people attract towards the urban life standards and it is caused to increase urban population. It leads to generate the overcrowded cities and it is difficult to manage many people in small region and it leads to create many environmental problems. The estimated results of this study are clearly telling urbanization is responsible to increase the carbon dioxide emission or responsible to damage the environment.

In this regard governments of selected countries should create such policies that lead to prevent



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

the migration and people stay at their own region. For example, in rural areas government should provide all the educational facilities which are accessible in the urban areas in the form of school colleges and universities. In the urban areas the health facilities are up to the mark, these kinds of facilities should also be available in rural areas. Not only this, equal job opportunities should also be provided at the rural areas by investing in different public and private sectors of rural areas. All the consumer items which are available in rural shopping malls should also be available in rural areas; in short rural people should also have diversity of goods as in the urban areas. If the government is successful to manage these kinds of things in rural areas, then urbanization can be brought to a close.

On the other hand, a problem which is not only faced by the selected countries but also in all over the world that is the rapid increase in the population. Rapid increase in population leads to decrease the population in square area, if this ratio is increasing it means that people on square area are increasing it is called population density. So, if a person has fewer places to survive it means the garbage and waste material would also create more. In the result the disposing of garbage and waste material would create a problem consequently it would lead to increase the environmental problems in the society. It is because of the high increase in the population and decrease in the areas where humans are living. The estimated results of this study are also confirming that population is responsible to damage the environment by releasing the carbon dioxide.

Without the interference of government this problem cannot be tackled, to control the population density government should make such policies which are responsible to control the population. To control the population government should improve the literacy rate because it is not possible without the consciousness among the people. Moreover, different programs should be telecasted to make awareness in the people. The representative of government should go door to door to generate the awareness among the people and different kinds of advertisements should also be started. Another solution of this problem is government should colonize new cities where people can live due to this, population pressure in the existing cities would come down and the problem of population density can be resolved.

Forests are very environment friendly elements because they release oxygen and release carbon dioxide, but unfortunately at present time this world is losing forests and that leads to increase the emission of carbon dioxide. In fact, the situation is, forests are decreasing and the industries are increasing day by day, moreover high rate of population leads to increase the demand of housing societies in the result forests have to be cut. In regression analysis the positive coefficient of forests square area means forests are also responsible to increase carbon dioxide emissions; it is because the forests square area is decreasing or it could be said deforestation, as presented in figure 1. The problem does not end here; deforestation leads to increase global warming and due to this temperature of this world is increasing gradually. So, it could be said that deforestation exists in the selected *HDR* listed countries in this study.

So, for confrontation the environmental problem there is a need to focus on the forestation seriously, because it is ideal solution for these kinds of problems. Forests protect the environment. In this regard government should protect the forests, not only this there should also be focus on growing forests area as well as increase in number of trees other than forests. In this



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

era of information and technology the alternatives of the wood furniture should also be discovered. New cities should also populate but not on the costs of forests and it cannot possible without the help of government. So, government should also participate to tackle this phenomenon, among other private forests protecting agencies. Because it would be caused trees are planted where previously there weren't any. In this way they will on soak up carbon dioxide as they grow, in the result reducing the amount of carbon gas in the atmosphere, and the environment will become hygienic.

Globalization on the other hand is also affecting the environment; basically, it is directly related to the environment. In this study economic globalization is being used it means that all the countries are related to each other in the relation of trade, the distance between the economies is no more issue now and the markets are getting outsized day by day. In simple words we can say growing economic relations mean more industrialization, more agricultural production and more services. This increase in industrialization, agriculture and services sector more emissions in carbon dioxide that leads to increase pollution and all it is a result of globalization. The estimated results of this study are also expressing that economic globalization is also one of the causes to increase in carbon dioxide emissions in selected HDR countries. Or in other words it could be said that international economic activities are also responsible to increase the pollution around the world.

There are many reasons behind it, it is also a general perception that the developed countries used the globalization for their own purposes that's why developing countries are unable to get maximum outgrowth from it. But it is also a reality globalization has benefits for the world if it could properly use for this purpose there should be a proper check and balance of the by an unbiased body for international economic activates of the economies. Regarding globalization there should be proper rules and regulation which every country has to follow which have international economic relations which other economies. Every economy also has to observe by them that which international economic activity is harming the environment.

## References

- Aasar, E. M. K., & Hanafy, A. S. (2018). Investigating the Environmental Kuznets Curve Hypothesis in Egypt: The Role of Renewable Energy and Trade in Mitigating GHGs. *International Journal of Energy Economics and Policy*, 8(3), 177-184
- Acs, J. Z., Audretsch, B. D., Braunerhjelm, P., & Carlsson, B. (2012). Growth and Entrepreneurship. *Small Business Economics*, 39, 289–300
- Adu, T. D., & Denkyirah, K. E. (2017). Economic Growth and Environmental Pollution in West Africa: Testing the Environmental Kuznets Curve Hypothesis. *Kasetsart Journal of Social Sciences*, 30, 1-8
- Ahangari, A., & Moradi, M. (2014). The Possibility of Environmental Kuznets Curve for CO<sub>2</sub> Emission. *Journal of Economics and Sustainable Development*, 5(27). 277-282
- Ahmed, A. F., & Bashir, F. (2016). Empirical Existence of Environmental Kuznets Curve. *Bulletin of Business and Economics*, 5(2), 92-108





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Ahmed, K., & Long, W. (2012). Environmental Kuznets Curve and Pakistan: An Empirical Analysis. *Procedia Economics and Finance*, 1(1), 4-13

Ahmed, K., & Qazi, Q. A. (2013). Environmental Kuznets Curve for CO<sub>2</sub> Emission in Mongolia: an Empirical Analysis. *Management of Environmental Quality: An International Journal*, 25(4), 505-516

Alam, M. M., Murab W. M., Noman, M. H. A., & Ozturk, I. (2016). Relationships among Carbon Emissions, Economic Growth, Energy Consumption and Population Growth: Testing Environmental Kuznets Curve Hypothesis for Brazil, China, India and Indonesia. *Ecological Indicators*, 70, 477-479

Allard, A., Takman J., Uddin, S. G., & Ahmed, A. (2018). The N-shaped Environmental Kuznets Curve: an Empirical Evaluation Using a Panel Quantile Regression Approach. *Environmental Science and Pollution Research*, 25, 5848–5861

Alcántara, V., & Padilla, E. (2009). Input–Output Subsystems and Pollution: An Application to the Service Sector and CO<sub>2</sub> Emissions in Spain. *Ecological Economics*, 68, 905-914

Amitava, B. (2016). Neurological Disorders from Ambient (Urban) Air Pollution Emphasizing UFPM and PM2.5. *Current Pollution Reports*, 2, 203-211

Arshed, N., & Iqbal, M. (2018). Can Environmental Kuznets curve be moderated - A comparison of SAARC and G7 economies. Presented in *2nd FCCU Economics Research conference on Growth Governance and Socio-economic Gaps* 10 May. Forman Christian College University Lahore Pakistan.

Aslanidis, N., & Iranzo, S. (2009). Environment and development: is there a Kuznets curve for CO<sub>2</sub> emissions?. *Applied Economics*, 41(1), 803–810

Armeanu, D., Vintilă, G., Andrei, V. J., Gherghina, C. Ş., Drăgoi, C. M., & Teodor, C. (2018). Exploring the Link Between Environmental Pollution and Economic Growth in EU-28 Countries: Is There an Environmental Kuznets Curve?. *Plos One*, 13(5), 1-28

Atwi, M., Barberán R., Mur J., & Angulo A. (2018). CO<sub>2</sub> Kuznets Curve Revisited: from Cross-Sections to Panel Data Models. *Journal of Regional Research*, 40, 169-196

Bai, A., Popp, J., Peto, K., Szo"ke., Rákos, H, M., & Gabnai, Z. (2017). The Significance of Forests and Algae in CO<sub>2</sub> Balance: A Hungarian Case Study. *Sustainability*, 9 (857), 1-24

Baiardi, B. (2014). Technological Progress and the Environmental Kuznets Curve in the Twenty Regions of Italy. *De Gruyter*, 14(4), 1501–1542

Bernard, J. T., Gavin, M., Khalaf, L., & Voia, M. (2015). Environmental Kuznets curve: Tipping points, uncertainty and weak identification. *Environmental and Resource Economics*, 60(2), 285-315.

Bousquet, A., & Favard, P. (2005). Does S. Kuznets's Belief Question the Environmental Kuznets Curves?. *The Canadian Journal of Economics*, 38(2), 604-614

Butnar, I., & Llop, M. (2011). Structural Decomposition Analysis and Input–Output Subsystems: Changes in CO<sub>2</sub> Emissions of Spanish service Sectors (2000–2005). *Ecological Economics*, 70, 2012–2019





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Cherniwchan, J. (2012). Economic Growth, Industrialization, and the Environment. *Resource and Energy Economics*, 34(1), 442–467

Chiang, C. A., & Wainwright K. (2005). *Fundamental Methods of Mathematical Economics*. 4th edition McGraw.Hill International

Chow, C. G., & Lei, J. (2014). Environmental Kuznets Curve: Conclusive Econometric Evidence for CO<sub>2</sub>. *Pacific Economic Review*, 19(1), 1-7

Christmann, P., & Taylor, G. (2001). Globalization and the Environment: Determinants of Firm Self-Regulation in China. *Journal of International Business Studies*, 32 (3), 439-458

Dasgupta, S., Laplante, B., Wang, H., & Wheeler, D. (2002). Confronting the Environmental Kuznets Curve. *Journal of Economic Perspectives*, 16 (1), 147–168

Destek, A. M., Ulucak R. & Dogan, E. (2018). Analyzing the Environmental Kuznets Curve for the EU Countries: the Role of Ecological Footprint. *Environmental Science and Pollution Research*, 25(20), 29387–29396

Dinda, S. (2004). Environmental Kuznets Curve Hypothesis: A Survey. *Ecological Economics*, 49(1), 431– 455

Drabo, A. (2010). Environment quality and economic convergence: Extending Environmental Kuznets Curve hypothesis. *Economics Bulletin*, 30(2), 1617-1632

Duarte, R., Pinilla, V., & Serrano, A. (2013). Is There an Environmental Kuznets Curve for Water Use? A Panel Smooth Transition Regression Approach. *Economic Modelling*, 31, 518–527

Elgin, C., & Öztunalı, O. (2012). Environmental Kuznets Curve for the Informal Sector of Turkey (1950-2009). *Panoeconomicus*, 2014(4), 471-485

Faith, W., L. (2012). Economics of Air Pollution Effects versus Cost of Control. *Journal of the Air Pollution Control Association*, 13(8), 363-364

Galeotti, M., Manera, M., & Lanza, A. (2009). On the robustness of robustness checks of the environmental Kuznets curve hypothesis. *Environmental and Resource Economics*, 42(4), 551.

Gill R., A., Viswanathan K. K., & Hassan S. (2017). Is Environmental Kuznets Curve Still Relevant?. *International Journal of Energy Economics and Policy*, 7(1). 156-165

Granda, C., & Muñoz, C. P. G. L. (2008). The Environmental Kuznets Curve for Water Quality: An Analysis of its Appropriateness Using Unit Root and Cointegration Tests. *Lecturas de Economía*, 69(1), 221-244

Gu, A., Zhang, Y., & Pan, B. (2017). Relationship between Industrial Water Use and Economic Growth in China: Insights from an Environmental Kuznets Curve. *Water*, 9(556), 1-13

Gujrati, N, D. (2004). *Basic Econometrics*. 4th edition McGraw.Hill International

Hansen, J., Sato, M., Kharecha, P., Beerling, D., Berner, R., Masson-Delmotte, V., ... & Zachos, J. C. (2008). Target atmospheric CO<sub>2</sub>: Where should humanity aim?. *arXiv preprint arXiv:0804.1126*.

Iwata, H., Okada, K., & Samreth, S. (2010). Empirical Study on The environmental Kuznets Curve for CO<sub>2</sub> in France : The Role of Nuclear Energy. *Energy Policy*, 38(1), 4057–4063



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Figueroa, B. E., & Roberto, P. C. (2009). Country-Specific Environmental Kuznets Curves: A Random Coefficient Approach Applied To High-Income Countries. *Estudios de Economia*, 36(1), 5-32

Franchini, M., Mannucci, M. P., Pontoni, F., & Croci, E. (2015). The Health and Economic Burden of Air Pollution. *The American Journal of Medicine*, 128(9), 931-932

Fraser, I. & Shibayama, K. (2014). Nonhomothetic Growth Models for the Environmental Kuznets Curve. *International Economic Review*, 55(3), 919-942

Johansson, P. O., & Kriström, B. (2007). On a clear day you might see an environmental Kuznets curve. *Environmental and Resource Economics*, 37(1), 77-90.

Jošić, H., Jošić, M., & Janečić, M. (2016). Testing the environmental Kuznets curve in the case of Croatia. *Notitia - journal for sustainable development*, 2, 31-47

Joshi, P. & Beck, A. (2015). An Analysis of the Environmental Kuznets Curve for Carbon Dioxide Emissions: Evidence for OECD and Non-OECD Countries. *European Journal of Sustainable Development*, 4(3), 33-45

Joshi, P., & Beck, K. (2016). Environmental Kuznets Curve for Deforestation: Evidence Using GMM Estimation for OECD and Non-OECD Regions. *iForest*, 10, 196-203

Kacer, B., S., & Kayalica, O. M. (2014). Environmental Kuznets Curve and Sulfur Emissions: A Comparative Econometric Analysis. *Environmental Economics*, 5(1), 8-20

Kahuthu, A. (2006). Economic Growth and the Environmental Degradation in A Global Context. *Environment, Development and Sustainability*, 8(1), 55–68

Kaika, D., & Zervas, E. (2013). The Environmental Kuznets Curve (EKC) theory — Part A: Concept, Causes and the CO<sub>2</sub> Emissions Case. *Energy Policy*, 62, 1392–1402

Kılıç, C. & Balan, F. (2018). Is There an Environmental Kuznets Inverted-U Shaped Curve?. *Panoeconomicus*, 65(1), 79-94

Kijima, M., Nishide, K., & Ohya, A. (2010). Economic Models for the Environmental Kuznets Curve: A Survey. *Journal of Economic Dynamics & Control*, 34(1), 1187–1201

Kriström, B. & Johansson, O-P. (2007). On A Clear Day you Might See an Environmental. *Kuznets curve*, 37(1), 77–90

Kubicová, J. (2014). Testing Greenhouse Gases in Slovakia for Environmental Kuznets Curve and Pollution Haven Hypothesis. *Journal of International Studies*, 7(2), 161-177

Lapinskienė, G., Peleckis, K., & Nedelko, Z. (2017). Testing Environmental Kuznets Curve Hypothesis: The Role of Enterprise's Sustainability and Other Factors of GHG in European Countries. *Journal of Business Economics and Management*, 18(1), 54–67

Lapinskienė, G., Tvaronavičienė, M., & Vaitkus P. (2013). Analysis of the Validity of Environmental Kuznets Curve for the Baltic States. *Environmental and Climate Technologies*, 10(15), 41-46

Lapinskienė, G., Tvaronavičienė, M., & Vaitkus P. (2014). Greenhouse Gases Emissions and Economic Growth Evidence Substantiating The Presence of Environmental Kuznets Curve in the EU. *Technological and Economic Development of Economy*, 20(1), 65–78



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Liu, L. (2008). Sustainability Efforts in China: Reflections on the Environmental Kuznets Curve through a Locational Evaluation of "Eco-Communities". *Annals of the Association of American Geographers*, 98(3), 604-629

Liu, Y., Parolari, J. A., Kumara, M., Hang, W. C., Gabriel, G. K., & Porporato, A. (2017). Increasing Atmospheric Humidity and CO<sub>2</sub> Concentration Alleviate Forest Mortality Risk. *PNAS*, 114(37), 9918–9923

Lora, T. C. J., Bermudez, C. B., Vizcaino, C. A. C., Pinedo, I. J. W. (2013). The Environmental Kuznets Curve (EKC): an Analysis Landfilled Solid Waste in Colombia. *Faculty of Economics Journal*, 21(2), 7-16

Lorente, B. D. & Álvarez-Herranz, A. (2016). Economic Growth and Energy Regulation in the Environmental Kuznets Curve. *Environmental Science and Pollution Research*, 23(16), 16478–16494

Mahmut, Z., & Sinan, C. (2016). Testing Environmental Kuznets Curve in the Selected Transition Economies with Panel Smooth Transition Regression Analysis. *Amfiteatru Economic Journal*, 18(43), 537-547

Mao, C., Zhai, N., Yang, J., Feng, Y., Cao, Y., Han, X., ... & Meng, Q. X. (2013).. Environmental Kuznets Curve Analysis of the Economic Development and Nonpoint Source Pollution in the Ningxia Yellow River Irrigation Districts in China. *BioMed Research International*, 1-7

Marquart-Pyatt, S. (2004). A Cross-National Investigation of Deforestation, Debt, State Fiscal Capacity, and the Environmental Kuznets Curve. *International Journal of Sociology*, 34(1), 33-51

Martinez, S. G., Spadaro, V. J., Chapizanis, D., Kendrovski, V., Kochubovski, M., & Mudu, P. (2018). Health Impacts and Economic Costs of Air Pollution in the Metropolitan Area of Skopje. *International Journal of Environmental Research and Public Health*, 15(626), 1-11

Miller, S., & Startz, R. (2018). Feasible Generalized Least Squares using Machine Learning. Available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2966194](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2966194)

Monserate, Z. A. M., Quiroz, T. A., & Borja, P. J. M. (2016). Testing the Environmental Kuznets Curve Hypothesis In Iceland: 1960-2010. *Revista de Economía del Rosario*, 19(1), 5-28

Musselman, C. R., & Fox, G. D. (2012). A Review of the Role of Temperate Forests in the Global CO<sub>2</sub> Balance. *Journal of the Air*, 41(6), 798-807

Myllyntaus, T., & Kunnas, J. (2007). The Environmental Kuznets Curve Hypothesis and Air Pollution in Finland. *Scandinavian Economic History Review*, 55(2), 101-127

Naglis-Liepa, K. (2011). The Environmental Kuznets Curve Hypothesis As Theoretical Approach in Renewable Energy Promotion in Latvia. *Management Theory and Studies for Rural Business and Infrastructure Development*, 3(27), 1822-6760

Nahman, A., & Antrobus, G. (2005). Trade and the Environmental Kuznets Curve: Is Southern Africa A Pollution Heaven. *South African Journal of Economics*, 73(4), 803-814

Nasir, M., & Rehman, U. F. (2011). Environmental Kuznets Curve for Carbon Emissions in Pakistan: An Empirical Investigation. *Energy Policy*, 39, 1857–1864



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Och, M. (2017). Empirical Investigation of the Environmental Kuznets Curve Hypothesis for Nitrous Oxide Emissions for Mongolia. *International Journal of Energy Economics and Policy*, 7(1), 117-128

Osabuohienab, S. E., Efobic, R. U., & Gitau, W. M. C. (2014). Beyond the Environmental Kuznets Curve in Africa: Evidence from Panel Cointegration. *Journal of Environmental Policy & Planning*, 1-22

Pedroni, P. (2008). *Nonstationary panel data*. Notes for IMF course (not publically available). Williams College, Williamstown, M.A.

Prieur, F. (2009). The Environmental Kuznets Curve in a World of Irreversibility. *Economic Theory*, 40(1), 57-90

Perman, R., & Stern, I. D. (2003). Evidence from Panel Unit Root and Cointegration Tests that the Environmental Kuznets Curve Does not Exist. *The Australian Journal of Agricultural and Resource Economics*, 47(3), 325–347

Qu, B., & Zhang, Y. (2011). Effect of Income Distribution on the Environmental Kuznets Curve. *Pacific Economic Review*, 16(3), 349–370

Rabbi, F., Akbar, D., & Kabir, Z. S. M. (2015). Environment Kuznets Curve for Carbon Emissions: A Cointegration Analysis for Bangladesh. *International Journal of Energy Economics and Policy*, 5(1), 45-53

Richard, P. & He J. (2010), Environmental Kuznets curve for CO<sub>2</sub> in Canada. *Ecological Economics*. 69, 1083–1093

Romualdas, G., Lapinskienė, G., & Peleckis, K. (2017). The Evolution of the Environmental Kuznets Curve Concept: The Review of the Research. *Panaeconomicus*, 64(1). 93-112

Sarkodie, A. S., & Strezov, V. (2019). A Review on Environmental Kuznets Curve Hypothesis Using Bibliometric and Meta-Analysis. *Science of the Total Environment*, 649, 128–145

Shahbaz, M., Dube, S., Ozturk, I., & Jalil, A. (2015). Testing the Environmental Kuznets Curve Hypothesis in Portugal. *International Journal of Energy Economics and Policy*, 5(2), 475-481

Shahbaz, M., Ozturk, I., Afza, T., & Ali, A. (2013). Revisiting the Environmental Kuznets Curve in A Global Economy. *Renewable and Sustainable Energy Reviews*, 25, 494–502

Sinha, A. & Bhatt, Y. M. (2016). Investigating the Environmental Kuznets Curve for India. *Journal of Environments*, 3(1), 1-6

Sinha, A. & Bhatt, M. Y. (2017). Environmental Kuznets Curve for CO<sub>2</sub> and NO<sub>x</sub> Emissions: A Case Study of India. *European Journal of Sustainable Development*, 6(1), 267-276

Song, T., Zheng, T., & Tong, L. (2008). An Empirical Test of the Environmental Kuznets Curve in China: A panel Cointegration Approach. *China Economic Review*, 19(1), 381-392

Spangenberg, H. J. (2001). The Environmental Kuznets Curve: A Methodological Artefact?. *Population and Environment*, 23 (2), 175-191

Steger, T. M., & Egli, H. (2007). A dynamic model of the environmental Kuznets curve: turning point and public policy. In *Sustainable resource use and economic dynamics* (pp. 17-34). Springer, Dordrecht.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Stern, I. (2004). The Rise and Fall of the Environmental Kuznets Curve. *World Development*, 32(8), 1419–1439
- Sulaiman, J., Azman, A., & Saboori, B. (2013). Evidence of the Environmental Kuznets Curve: Implications of Industrial Trade Data. *American Journal of Environmental Science*, 9(2), 130-141
- Suocheng, D., Zehong, L. F. L., & Xianfeng, J. (2010). The Environmental Kuznets Curve and Spatial Pattern of Environmental—Economy in China: Evidence from a Panel Cointegration Test. *Journal of Resources and Ecology*, 1(2), 169-176
- Tabak, B. M., Noronha, A. C. & Cajueiro, D. (2011). Bank capital buffers, lending growth and economic cycle for Brazil. presented in *2nd BIS CCA conference on Monetary policy, financial stability and business cycle*, 12-13 May, Ottawa USA.
- Taguchi, H. (2012). The environmental Kuznets Curve in Asia: The Case of Sulphur and Carbon Emissions. *Asia-Pacific Development Journal*, 19(2), 77-92
- Thompson, A. (2014). Environmental Kuznets Curve for Water Pollution: The Case of Border Countries. *Modern Economy*, 5, 66-69
- Todaro, M. P., & Smith, S. C. (2015). *Economic Development*. 12th edition Pearson USA
- Terawaki, T. & Waluyo, A. E. (2016). Environmental Kuznets Curve for Deforestation in Indonesia: An ARDL Bounds Testing Approach. *Journal of Economic Cooperation and Development*, 37(3), 87-108
- Tevie, J., Grimsrud, M. K., & Berrens, P. R. (2011). Testing the Environmental Kuznets Curve Hypothesis for Biodiversity Risk in the US: A Spatial Econometric Approach. *Sustainability*, 3, 2182-2199
- Twerefou, K. D., Poku, A. F., & Bekoe, W. (2016). An Empirical Examination of the Environmental Kuznets Curve Hypothesis for Carbon Dioxide emissions in Ghana: an ARDL Approach. *Environmental & Socio-Economic Studies*, 4(4), 1-12
- Thirlwall, A. P., & Pacheco-Lopez, P. (2015). *Economics of Development: theory and evidence*. 10th edition Red Globe Press.
- Vasanth, V., Selvam, M., Lingaraja, K., Miencha, O. I., & Raja, M. (2015). Testing Environmental Kuznets Curve Hypothesis at Firm Level in India. *Journal of Sustainable Development*, 8(8), 201-212
- Vlontzos, G., Niavis, S., & Pardalos, P. (2017). Testing for Environmental Kuznets Curve in the EU Agricultural Sector through an Eco-(in) Efficiency Index. *Energies*, 10 (1992), 1-15
- Wang, Y. & Shen, N. (2016). Agricultural Environmental Efficiency and Agricultural Environmental Kuznets Curve Based on Technological Gap: the Case of China. *Polish Journal of Environmental Studies*, 25(3), 1293-1303
- Wang, S. & Liu, X. (2017). China's City-Level Energy-Related CO2 Emissions: Spatiotemporal Patterns and Driving Forces. *Applied Energy*, 200, 204–214
- Wolde, T. (2015). Economic Growth and Environmental Degradation in Ethiopia: An Environmental Kuznets Curve Analysis Approach. *Journal of Economics and International Finance*, 7(4), 72-79





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Zaman, K., Shahbaz, M., Loganathan, N., & Raza, A. S. (2016). Tourism Development, Energy Consumption and Environmental Kuznets Curve: Trivariate Analysis in the Panel of Developed and Developing Countries. *Tourism Management*, 54, 275-283

Zhou, D., Liu, S. Oeding, J., & Zhao, S. (2013). Forest Cutting and Impacts on Carbon in the Eastern United States. *Scientific Reports*, 3(3547), 1-7

## Appendix

### A1 : list of countries

High HDI	Low HDI	Medium HDI	Very High HDI
Algeria	Burundi	Angola	Argentina
Armenia	Congo, Dem. Rep.	Bnagladesh	Australia
Bosnia and Herzegovina	Ethiopia	Bhutan	Austria
Brazil	Haiti	Bolivia	Bahamas, The
Bulgaria	Madagascar	Botswana	Belarus
Cabo Verde	Mozambique	Cambodia	Belgium
China	Nigeria	El Salvador	Brunei Darussalam
Colombia	Pakistan	Ghana	Canada
Dominican Republic	Sudan	Honduras	Chile
Ecuador	Uganda	India	Costa Rica
Egypt		Iraq	Croatia
Indonesia		Keenya	Cyprua
Iran		Kyrgyz Rrpublic	Czechia
Jamaica		Lao PDR	Estonia
Jordan		Morocco	Finlad
Lebanon		Namibia	France
Mexico		Nepal	Georgia
Moldova		Nicaragua	Germany
Mongolia		Philippines	Greece
North Macedonia		Syrian Arab Republic	Hungary
Paraguay		Zimbabwe	Iceland
Peru			Ireland
South Africa			Israel
Sri Lanka			Itlay
Tunisia			Japan
Ukraine			Kazakhstan
Uzbekistan			Korea, Rep.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

			Kuwait
			Latvia
			Lithuania
			Luxembourg
			Malaysia
			Malta
			Mauritius
			Montenegro
			Netherlands
			New Zealand
			Oman
			Panama
			Poland
			Portugal
			Romania
			Russian Federation
			Saudi Arabia
			Serbia
			Singapore
			Slovak Republic
			Slovenia
			Spain
			Sweden
			Switzerland
			Thailand
			Turkiye
			United Arab Emirates
			United Kingdom
			United States
			Uruguay



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Assessing Efficiency of Altman Z-score and Current Ratio for Prediction of Financial Distress and its Determinants: Evidence from Banking Sector of Pakistan**

Faryal Shahid

University of the Punjab, Lahore

Muhammad Farhan Ayaz

University of the Punjab, Lahore

Muhammad Idrees

University of the Punjab, Lahore

Hafiz Ahmed Ullah

University of the Punjab, Lahore

**Abstract**

Corporate financial distress has become a very hot topic in finance these days. It affects the wealth of a shareholder and exercises a great impact on different stake holders. The importance and relevancy of corporate financial distress cannot be denied in today's modern era where the changes take place dynamically in a quick session across the world. The meaning of financial distress is the situation of a company where it cannot meet its obligations and as a result, the creditors refuse to supply the goods or the financial institutions like banks may reject to give the loans to that company. Creditors feel uncomfortable to work with the companies facing the financial distress situation because they are not sure about the fulfillment of their orders or to pay their debts fully in time. If the period of financial distress stays long, it may lead a company to bankruptcy and reduces its market value.

This research is aimed to investigate the determinants of financial distress of banking sector in Pakistan using balanced panel data from 05 Banks for the period covering from 2016 to 2020 on quarterly basis. A quantitative approach and explanatory design will be employed to realize the stated objectives. To achieve the study objectives, secondary data will be collected from quarterly financial statements of sampled Banks for the stated period and will analyze using descriptive statistics and a random effect (RE) regression model.

**Keywords:** altman's z-score; determinant factors; Pakistan; financial distress; Banking Sector

**Introduction**

It is obvious that the Banking Sector is one of the most important elements of the financial sector as well as the economy of a nation and its benefits cannot be underestimated. In developing economies, the financial system is a major determinant of economic growth. Having noted this, it is also common knowledge that the performance of any economy exceedingly depends upon the performance of the financial sector. This is primarily because the association among the economic constructs has been empirically investigated by the researchers, due to a deep rooted interest in the discipline (Baily & Elliott, 2013; Khalifa Al-Yousif, 2002; Levine, 1999). In this regard, due to a lack of established financial capital, and in an effort to save markets in developing countries (Menyah, Nazlioglu, & WoldeRufael, 2014), the banking sector serves as a



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

trusted and effective financial intermediary (He, Kelly, & Manela, 2017). Through the transformation of savings into investments, financial institutions execute the monetary and financial governance system, mainly by relying on the efficient allocation of resources (Ayadi, Arbak, Naceur, & De Groen, 2015; Masoud & Hardaker, 2012). It is also commonly believed that the banking sector diagnoses the financial illnesses of the developing nations. Therefore, in this regard, the banking sector serves as an active partner that participates to ensure the financial soundness of developing countries, all across the world. Among the branches of the banking sector, the commercial banks are involved in accepting deposits, advancing loans, providing general utility services, making investments, promoting capital formulation, facilitating foreign assistance, and creating and distributing the securities with the ultimate purpose of earning profit. Therefore, a well-established operation of commercial banks tends to excel in a first-order impact, not only in terms of economic growth, but also in the context of accelerating financial development in general.

As stated in Andrade and Kaplan (1997) and cited by Enyew et al. (2019), financial distress is a circumstance in which a firm cannot fulfill its debt obligations to the creditors, which in return leads to either restructuring or bankruptcy. Financially distressed firms are believed to face multiple difficulties including operational insolvency, dividend reductions, losses, plant closings, reduced stock prices, and loss of customers, valuable suppliers, and key employees (Purnanandam, 2008). Since the Banking sector is strongly connected to and serves almost all sectors of the economy, the failure of firms in the Banking sector will spread to other sectors in the economy. Financial institutions are very sensitive to factors that affect their financial health. Even though considerable empirical investigations had been conducted to identify the most important factors that determine the level of financial distress in financial sector (such as Cheluget et al., 2014; Pranowo et al., 2010; Ogawa, 2003).

According to Siew, Han and boon (2014) corporate financial distress belongs to the financial health of the company and in corporate finance it is an acute problem. Bondholders are always very much curious about the financial health of the corporate sector as they are the creditors of the company. Rizwan Khurshid (2013) mentioned in his article that when an individual person or company is not able to pay its obligations with an interest charged on the money which is borrowed from the lenders, they have facing the facing the financial distress problem.

Rayenda K Brahmana (2007) said that the detection of financial distress is more important rather than focus on the bankruptcy because first financial distress first takes place and then bankruptcy happens. More over the word of financial distress is used instead of insolvency and default; it is the time when the borrower does not have the capacity to pay the debts for which he is liable for (Andrade & Kaplan, 1997). The concept of the insolvency is different from financial distress and the reason is that financial distress is a dynamic phenomenon instead of static economic. Financial distress starts when the company delays its debt repayment to the lenders. (Stulpiniene, V, 2013).

(Ijaz shahzad (2013) mentioned that financial distress is the state of failure of a company when it fails to meet the financial obligations of the creditors as he ranked financial distress companies to those which are facing the difficulties in the liquidity management. There are many events that affect the corporation in several ways and takes it into the situation of financial distress problem.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Heavy fixed cost bear by the corporation, revenues, assets which are less liquid and economic depression sensitivity are the key factors which can be regarded as the increased chances of financial distress in the corporation.

According to Altman (1993) definitions can define failure, bankruptcy, insolvency and default in different ways. In economic term, failure means an invested capital fails to give return as much as the similar investments give in the market or simply we can say that earning per share is not up to the mark and it is often done when the company is unable to meet its liabilities but when we talk about insolvency it has been divided in two types, first one is technical insolvency and the other one is ranked as bankruptcy. Technical insolvency is basically categorized as petty business problems that a company has, it occurs when short term liabilities of an enterprise are more than its current assets, while on the other hand bankruptcy which is the second type is a serious issue for the business and it occurs when total liabilities are more than its total assets with a big margin (Mous 2005).

Altman (1968) used Z score model to find out the reasons of failure. He developed the model based on five ratios which predicts two years before bankruptcy of a company's failure. Altman again reorganized its model in 2000 to predict bankruptcy which is known as Zeta model and in 2002 Altman developed model for emerging market all based on five financial ratios.

Altman revisiting the Z score model that is developed by him in 1968 and ZETA the credit risk model which was also developed by him in 1977 is also called Z'' model. He used financial and economic ratios to evaluate the financial distress. Z score predicts the financial distress linearly; he took working capital over total assets, Retained earnings over total assets, earnings before interest and tax over total assets, market value of equity over book value of total liabilities, and sales over total assets as independent variables and as dependent variable Z score was taken to find out the effects on overall index. Results suggested that Z score model has very accurate capacity to distinguish between distress and non-distress companies.

### **Significance of the study**

Specific objectives are stated as follows

To examine the financial distress condition of Banking Sector in Pakistan.

To assess the effect of firm-specific factors including profitability, liquidity, firm size, leverage, capital adequacy, earnings growth, firm age, loss ratio, and asset tangibility on financial distress in Pakistani Banking Sector.

### **Research objectives:**

The main objectives of the study are:

To investigate the determinants of financial distress in the Banking Sector.

To present the tentative relationship between leverage and financial distress in Banking Sector of Pakistan economy.

### **Problem statement:**

It is difficult to identify the most accurate, consistent and simple accounting measures of distress in the literature and in available empirical work that can be used to assess the financial distress condition and its determinants in Pakistani Banking Sector.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Hypothesis of the study:**

To check the impact of distress empirically, we construct following hypothesis.

H1: Profitability affects financial distress of banking sector in Pakistan.

H2: Firm Size affects financial distress of banking sector in Pakistan.

H3: Leverage affects financial distress of banking sector in Pakistan.

H4: Liquidity affects financial distress of banking sector in Pakistan.

H5: Capital adequacy affects financial distress of banking sector in Pakistan.

### **Research methodology:**

This research study is based on panel data to identify different determinants of financial distress. First of all, correlation matrix is used to check the correlation between financial distress and these variables. Then regression model is used to check the dependency of one variable over others. Slope and intercept are kept constant in regression analysis which makes it constant regression model.

### **Population**

Pakistan Banking Sector comprises Commercial Banks, Foreign Banks, Islamic Banks, Development Financial Institutions and Microfinance Banks. The Industry constitutes around 31 banks, of which five are public sector banks, 22 are private banks, and 4 are foreign banks, out of which 05 Banks (ABL, HBL, UBL, MCB, and Meezan Bank Ltd) are selected for data collection on annual basis. In this research analysis's unit is Bank.

### **Research design:**

Secondary source of data is used in research design to find out the z-score and different characteristics of the Banking Sector sector of Pakistan in period of consecutively two business cycles.

### **Variables of study:**

#### **Dependent Variable**

Financial distress

#### **Independent variables:**

Liquidity

Profitability

Efficiency

Leverage

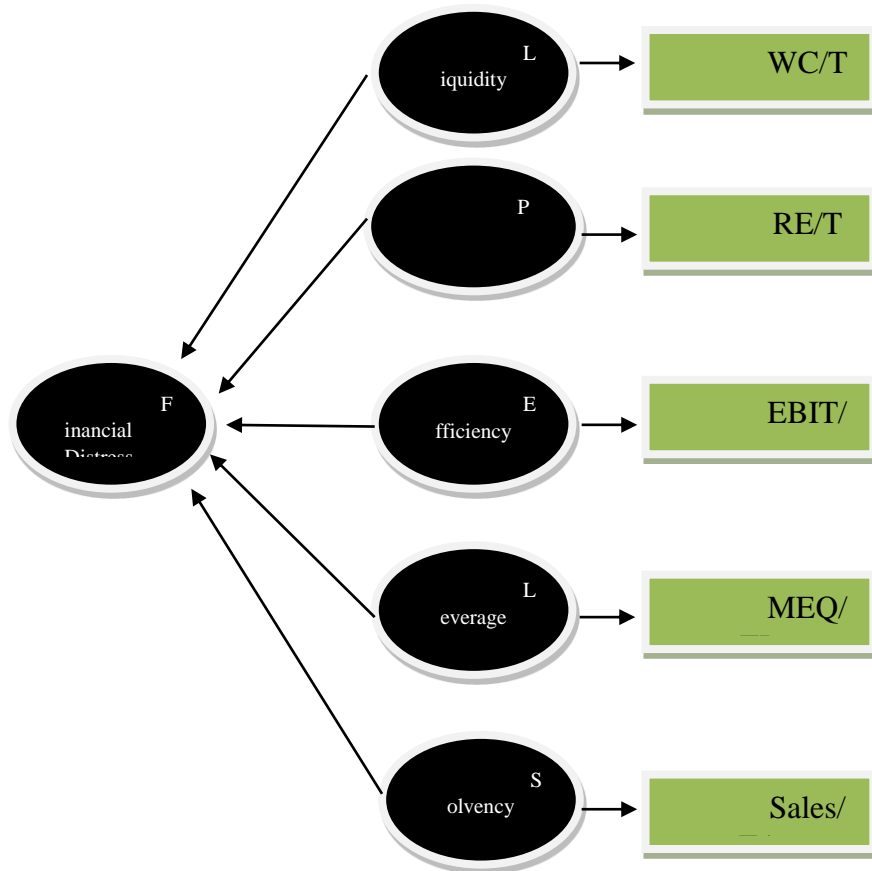
Solvency

#### **Altman's z-score (1968):**

He applies multivariate discriminant analysis to derive the linear combination of the ratios which 'best' discriminate between financial distressed and non-distressed groups. Similarly to Beaver, he selects 22 financial ratios based on their popularity in the literature to the study and groups them into five categories: profitability, liquidity, leverage, solvency, profitability and efficiency. An overall score known as Altman's Z-score.

On the basis of literature we use Altman's Z-score model.

**Research Model**





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Moderating Role of Knowledge Economy in Very High Developed Countries – An Aggregate Demand Based Environmental Kuznets Curve Perspective**

Mubasher Iqbal

University of Management & Technology, Lahore

Dr. Rukhsana Kalim

University of Management & Technology, Lahore

Usama Saleem

University of Management & Technology, Lahore

**Abstract**

Considering environmental degradation crucial problem of very high developed countries this study aims to find out role of aggregate demand in Environmental Kuznets Curve (EKC) perspective. On the other hand, World Bank has proposed four pillars of knowledge economy these are; technology, innovations, education and institutions. This study has assumed that these four pillars must be serving efficiently in maintaining sustainable development on the subject of environment quality during 1995 to 2021. According to the estimated results using panel Quantile regression both U as well as inverted U-shaped aggregate demand based EKC have confirmed. In fact, these knowledge pillars are responsible to transfigure the EKC. Contradictory to our assumption, as determinant only technology and innovations are improving environment quality. While as moderator all knowledge pillars except institutions are shifting the EKC downward. Urbanization, energy intensity, financial development and trade openness are found significant contributing factors to the environmental deterioration.

**Keywords:** EKC, Knowledge Economy, STIRPAT

**Introduction**

Environmental deterioration is worldwide problem and getting severe day by day (Gardner & Stern, 1996). Generally economic activities are blamed for this (Khan et al., 2022). As every action has a reaction, similarly output directly influences environment quality (Hassan et al., 2021). Alternatively, aggregate demand impacts the output in a way that in capitalistic economies producers always follow consumer's desires and needs (Dutt, 2006). In this way, aggregate demand has an impact on environmental quality (Ahmad & Khattak, 2020).

Environmental Kuznets Curve (EKC) is well-known aspect to understand theoretical relationship between environment quality and economic activities (Chekour et al., 2020, Gyamfi et al., 2021 and Bilgili et al., 2022). Keeping in view the environmental damaging aspect of aggregate demand, it can be another aspect of EKC. Improving the maturity level among economic agents, pattern of aggregate demand can be transformed. In this context, World Bank report (2007) has proposed; technology, innovation, education, and institutions as four pillars of knowledge economy. Using these pillars environmental deterioration can be controlled along with people's demanding behavior (Yao et al., 2019).

This study has assumed that indicators of knowledge economy can improve the environment quality by reducing carbon emissions. Improved technology, concentration towards innovations, efficient educational system and functional institutions can play important role for the betterment



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

of environment quality. So, the objective of this study is to test aggregate demand based EKC. After that moderating as well as determining role of knowledge indicators proposed by World Bank. In the end, our study will propose suitable policy implications along with concluding remarks.

After these introductory remarks, this study is divided into four more sections. Second section contains review of some relevant literature to analyze the work done so far and to identify research gap. Third section is about data and methodology. In fourth section estimated results are presented along with some interpretations and economic reasoning. Fifth and the last section contains concluding remarks and some suitable policies for environmental betterment are presented.

### **Literature Review**

From the past some studies like Grossman and Kruger (1991), Selden and Song (1994) and Stern et al. (1996) have discussed this phenomenon with economic growth and environmental quality. Stochastic Impacts by Regression on Population, Affluence and Technology (STIRPAT) is another channel for testing, how economic activities are deteriorating the environmental quality. Many studies have combined both of them. Many recent studies have confirmed the existence of EKC like Raza and Shah (2018) and Kılıç and Balan (2018) have confirmed inverted U-shaped EKC for G7 and panel data of 151 countries respectively. Hove and Tursoy (2019) have found U shaped EKC for 24 emerging economies. On the other hand, Jena et al. (2022) and Işık et al. (2022) have confirmed both U and U-shaped EKC for selected Asia's top carbon emitter countries and different states of US respectively. Kilinc-Ata and Likhachev (2022) for Russia and Karahasan and Pinar (2022) for Turkish provinces have confirmed U shaped EKC.

Studies have proxied technology with total patent applications. Considering some recent studies like; Mensah et al. (2018), Khan et al. (2020) Erdoğan (2021) and Arshed et al. (2021) have validated its role in improving environment quality. But some studies like; Long et al (2018), Erdoğan et al. (2020) and Ullah et al. (2021) are opposite to these findings. Secondly many studies have being used total trademark applications as proxy for innovations. Some studies like Mensah et al. (2019), Wang and Zhu (2020), Sinha et al. (2020) and Ullah et al. (2021) have empirically proved that innovations are beneficial for environmental quality. While Anser et al. (2021) are opposite to these findings. On the other hand, Erdoğan et al. (2020) have found that innovations improve as well as worsen the environment quality in difference sectors of the economy.

Studies measured it using public expenditure on education, among them some studies like; Cai et al. (2018), Omri and Afi (2020), Mehmood (2022) and Zaman et al. (2021) have found it as environmental improver. On the other hand, Prasetyani et al. (2021) and Zhang et al. (2020) have found its mix evidence that education expenditures can improve as well as deteriorate the environment quality based upon the internal circumstances of the economy. Fourthly literature has mix evidence regarding institutional quality. For example, some studies like; Yang et al. (2022) and Obobisa et al. (2022) have found it responsible for environment damaging. While Danish et al. (2019), Haldar and Sethi (2021), Khan et al. (2021), Yuan et al. (2022) and Kim et al. (2022) are opposite to these findings. According to Bibi and Jamil (2021) in some regions institutional quality is improving as well as deteriorating environment quality.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Due to difference in the lifestyle of rural and urban areas, people attract towards urban areas. So, rapid migration interrupts environmental quality. In this context; Sun and Huang (2020), Musah et al. (2021), Huang et al. (2021), Erdoğan et al. (2022), Tan et al. (2022) and Sun et al. (2022) have empirically tested the same phenomenon. Similarly, more production requires more energy consumption, in the case of real development production to energy ratio decreases otherwise increases and ultimately environment suffers. Many recent studies have evidenced this phenomenon like; Lin et al. (2021), Chu and Le (2022), Khan et al. (2022), Muhammad et al. (2022), Shokoohi et al. (2022), Yang et al. (2022), Shahzad et al. (2022), Zhang and Wang (2022) and Rahman (2022).

Considering domestic credit to private sector by banks as standard indicator of financial development literature has mix evidence. Following some studies like; Acheampong (2019), Ganda (2021), Petrović and Lobanov (2022) and Xu et al. (2022) have found financial development responsible for environmental deterioration. While Tsaurai (2019), Habiba and Xinbang (2022) and Shah et al. (2022) have captured its positive as well as negative impact. Presently through trade all the countries are connected with each other. So, trade openness influences the climate worldwide. Studies like; Dou et al. (2021), Azam et al. (2021), Wang and Zhang (2021) and Ibrahim (2022) have found it responsible for environmental damaging. While Khan et al. (2021) and Adebayo (2021) have found it as environmental improver. On the other hand, Sun et al. (2020) in non-linear analysis confirmed U-shaped relationship with environment quality.

Studies exist which have tested the pillars of knowledge separately but our study aggregates all these pillars of knowledge titled as “knowledge economy” as proposed by World Bank (2007). Further, these pillars are also used as moderator with the assumption that aggregate demand based EKC can be moderated by improving maturity level in the demand pattern. This study is unique in a way that, very high developed countries are selected as sample. Because, all these countries are very highly developed therefore, it is assumed that all these indicators will be performing best.

## **Data and Methodology**

### **Variables and Theoretical Model**

This study secondary data is selected from 1995 to 2021 for very high HDI listed countries classified by UNDP<sup>8</sup>. Complete list of the country names is provided in the appendix (A1). Countries are selected based upon the availability of data and the series is in natural log form. Data is collected from World Development Indicators (WDI) and International Country Risk Guide (ICRG). Noticeable thing is the aggregate demand, it is the summation of consumption, investment, government expenditures and net exports. Table 1 contains the name of the variables along with their symbols with definition and source.





**Table 1 – Description of the Variables**

Variables	Definition	Source
CO <sub>2</sub>	Carbon dioxide emissions metric tons per capita	WDI
AD	Keynesian aggregate demand at constant 2015 US\$	WDI
AD <sup>2</sup>	Keynesian aggregate demand at constant 2015 US\$ Square	WDI
UB	Ratio between total urban to rural population	WDI
EI	Ratio between energy supply and economic growth	WDI
FD	Domestic credit to private sector by banks (% of GDP)	WDI
TO	Total volume of trade or economic globalization (% of GDP)	WDI
TE	Total patent applications (resident and nonresident)	WDI
IN	Total trademark applications (resident and nonresident)	WDI
ED	Total education expenditures (Dollars)	WDI
IQ	Government stability	ICRG

This study has proposed four regression equations with carbon dioxide emissions as dependent variable. Where  $\beta_1$  and  $\beta_2$  are the coefficients of aggregate demand and its square respectively to test EKC. As control variables are included in this study  $\beta_3$   $\beta_4$   $\beta_5$  and  $\beta_6$  are the coefficients of urbanization, energy intensity, financial development and trade openness respectively. This pattern is same in each regression equation. However,  $\beta_7$  is the coefficient of one knowledge indicators in each regression equation. It is demonstrating technology, innovations, education and institutions. Similarly,  $\beta_8$  is the coefficient of cross product between these knowledge pillars and aggregate demand, it changes in each equation with similar pattern. Moreover,  $\varepsilon$  is the error term or disturbance of the model

$$CO_{2it} = \beta_1 AD_{it} + \beta_2 AD_{it}^2 + \beta_3 UB_{it} + \beta_4 EI_{it} + \beta_5 FD_{it} + \beta_6 TO_{it} + \beta_7 TE_{it} + \beta_8 TE_{it}^* AD_{it} + \varepsilon_i \text{ --- (1)}$$

$$CO_{2it} = \beta_1 AD_{it} + \beta_2 AD_{it}^2 + \beta_3 UB_{it} + \beta_4 EI_{it} + \beta_5 FD_{it} + \beta_6 TO_{it} + \beta_7 IN_{it} + \beta_8 IN_{it}^* AD_{it} + \varepsilon_i \text{ --- (2)}$$

$$CO_{2it} = \beta_1 AD_{it} + \beta_2 AD_{it}^2 + \beta_3 UB_{it} + \beta_4 EI_{it} + \beta_5 FD_{it} + \beta_6 TO_{it} + \beta_7 ED_{it} + \beta_8 ED_{it}^* AD_{it} + \varepsilon_i \text{ --- (3)}$$

$$CO_{2it} = \beta_1 AD_{it} + \beta_2 AD_{it}^2 + \beta_3 UB_{it} + \beta_4 EI_{it} + \beta_5 FD_{it} + \beta_6 TO_{it} + \beta_7 IQ_{it} + \beta_8 IQ_{it}^* AD_{it} + \varepsilon_i \text{ --- (4)}$$

In the proposed regression equations dependent variable is carbon dioxide emissions which is inversely representing the environment quality. This study will test aggregate demand based EKC and for this purpose square term is added. The objective to add square term is to test whether EKC is U-shaped or inverted U-shaped relating aggregate demand to the environmental quality.

Urbanization, energy intensity, financial development and trade openness are considered as controlling factors of the model. These factors are considered as polluting agents in sampled countries. There is a strong theoretical background behind these factors. This study has incorporated four pillars of knowledge economy by considering their role as environment improver. Technology as a first pillar, second pillar is innovation, third pillar is education, this study will use education while the fourth pillar is institutional quality. It is assumed that these pillars can improve the environment quality by reducing environment quality. These regression equations are being estimated using Panel Quantile Regression (PQR) Model.



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Results and Discussion

To examine the descriptive aspect of the selected variables table 2 is presented. Mean is representing central tendency while standard deviation is representing difference from the mean value. For the range minimum and maximum is arranged. Statistically significant coefficient of Jarque Bera test statistic implies that the selected set of variables are not normally distributed.

**Table 2 – Descriptive Statistics**

	CO <sub>2</sub>	AD	UB	EI	FD	TO	TE	IN	ED	IQ
<b>Mean</b>	1.043	25.568	5.315	1.404	3.214	4.077	7.054	10.168	22.160	7.662
<b>Median</b>	0.923	25.417	5.372	1.345	3.498	4.093	6.246	9.806	22.111	7.500
<b>Max</b>	2.148	30.179	6.997	2.473	5.718	6.080	14.248	16.050	26.289	11.000
<b>Min</b>	-0.493	22.446	3.102	0.239	-1.681	4.459	1.386	6.983	18.700	4.875
<b>S. D</b>	0.614	1.747	0.787	0.471	1.314	0.575	2.352	1.517	1.851	1.354
<b>JB Test</b>	27.882	10.454	28.339	5.411	184.446	20.265	53.850	3.696	16.679	16.505
<b>Prob.</b>	0.000	0.005	0.000	0.066	0.000	0.000	0.000	0.000	0.000	0.000

Estimated results are presented in table 3. Both U and inverted U-shaped existence of EKC is validated. Inverted U-shaped relationship implies that continuous increase in aggregate demand results nonstop production. However, carbon emissions firstly increase and then decrease due to constant increase in production. U-shaped relationship implies that to tackle increasing aggregate demand, production increases simultaneously. So, firstly carbon emissions decrease and then increases due to unbroken increase in production.

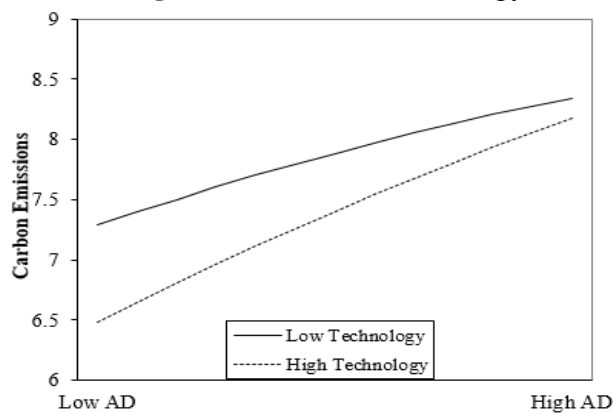
Urbanization and energy intensity both are responsible to increase carbon emissions. Due to difference in rural and urban lifestyle people prefer the migration which leads to increase in population pressure in urban areas. Ultimately deterioration in land, air and water quality starts in the form of shortage in water availability, high energy consumption and waste-disposal. On the other hand, amount of energy to produce specific level of output is termed as energy intensity. In keeping with the estimated results, energy intensity is deteriorating the environmental quality by increasing carbon emissions. Results show that, financial development and trade openness are responsible for more carbon emissions.

Regarding knowledge economy our results show that technology impacts positively on reduction in carbon emissions. It is quite possible that, very highly developed countries have updated worth of technological framework in the form of updated machinery, advanced and eco-friendly techniques of production and efficiency in production process. Moderating effect of technology has shifted down the EKC. Innovations are also reducing carbon emissions. due to moderation, it is also shifting down the EKC. Estimated results have confirmed that education expenditures are increasing carbon emissions. but its moderating effect efficiently shifted down the EKC. On the other hand, institutions are responsible to increase carbon emissions as well as shifting the EKC upward. Figures 2 to 5 depict the shifting of EKC due to the moderation of knowledge pillars. Except institutions are pillars are shifting down the EKC.

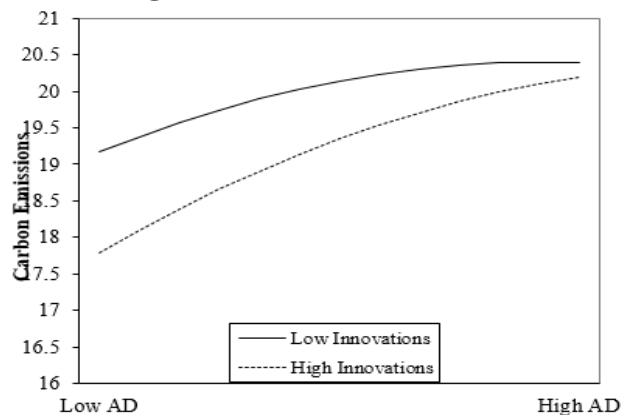
**Table 3 – PQR Estimations for Testing Role of Pillars of Knowledge Economy**

Variables	Role of Technology		Role of Innovations		Role of Education		Role of Institutions	
	Coeff.	Prob.	Coeff.	Prob.	Coeff.	Prob.	Coeff.	Prob.
AD	0.584	0.000	2.195	0.000	-2.270	0.000	-0.982	0.000
AD <sup>2</sup>	-0.010	0.000	-0.051	0.000	0.063	0.000	0.024	0.000
UB	0.054	0.000	0.076	0.000	0.052	0.000	0.017	0.000
EI	0.839	0.000	0.912	0.000	0.713	0.000	0.748	0.000
FD	0.027	0.000	0.008	0.000	0.033	0.000	0.018	0.000
TO	0.238	0.000	0.022	0.000	0.230	0.000	0.253	0.000
TE	-0.780	0.000						
AD*TE	0.026	0.000						
IN			-2.307	0.000				
AD*IN			0.078	0.000				
ED					1.110	0.000		
AD*ED					-0.415	0.000		
IQ							0.641	0.000
AD*IQ							-0.021	0.000

**Figure 2 – Role of Technology**

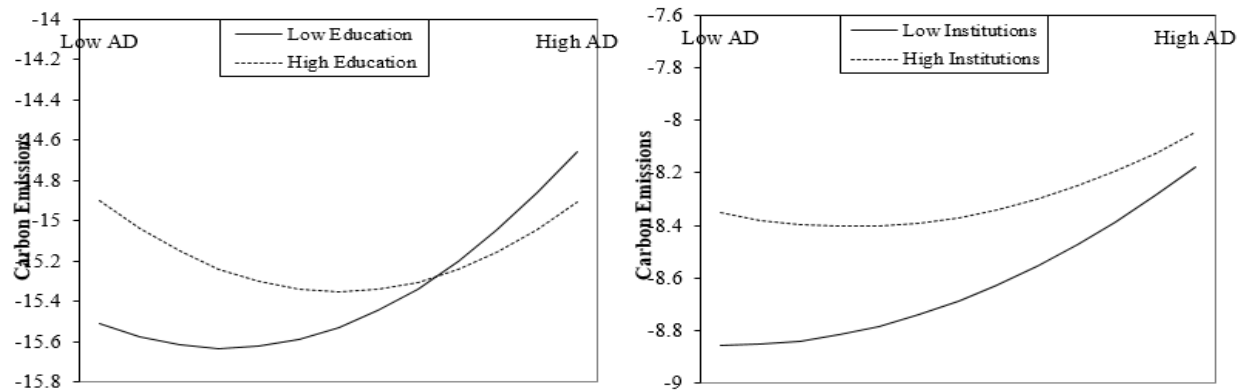


**Figure 3 – Role of Innovations**



**Figure 4 – Role of Education**

**Figure 5 – Role of Institutions**



### Conclusion and Policy Implications

This study has confirmed both U and inverted U-shaped existence of aggregate demand based EKC. Urbanization, energy intensity, financial development and trade openness are contributing positively to the carbon emissions. For these estimated results policies are simple. First of all, rapid increase in rural urban migration should be controlled by governments to minimize the difference in the conveniences of different areas. It will help in reducing the population pressure of urban areas. Monetary authorities should take strict check and balance towards financial institutions. In this context, strict monetary policy should be followed. Expansion in trade represents economic growth, but its immeasurable increase caused for worsening the environment.

Moreover, WTO is also serious about climate change due to trade in several meetings this issue is raised<sup>9</sup>. Environmental pollution can be controlled through these international trade policies. In conclusion, this study validated that all proposed knowledge pillars are not serving efficiently in very highly developed countries. Technology and innovations are reflecting ideal performance. So, the concentration of the authorities towards these two pillars should continue as it is. But there is a need to improve the education as well as institutional framework side.

These countries should increase education expenditure to provide environmental consciousness among the general public. Updated contents regarding climate issues should be added in the textbooks. Managerial authorities of higher education should conduct different seminars, conferences and meetings to increase the awareness. For improved institutional framework, there is a need to appoint highly professional and qualified officials to endure bureaucracy. Further, the selection of the higher authorities should be on merit for a functionally smooth system.

### References

Acheampong, A. O. (2019). Modelling for insight: does financial development improve environmental quality?. *Energy Economics*, 83, 156-179.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Adebayo, T. S., Rjoub, H., Akinsola, G. D., & Oladipupo, S. D. (2022). The asymmetric effects of renewable energy consumption and trade openness on carbon emissions in Sweden: new evidence from quantile-on-quantile regression approach. *Environmental Science and Pollution Research*, 29(2), 1875-1886.

Ahmad, M., & Khattak, S. I. (2020). Is aggregate domestic consumption spending (ADCS) per capita determining CO<sub>2</sub> emissions in South Africa? A new perspective. *Environmental and Resource Economics*, 75(3), 529-552.

Anser, M. K., Khan, M. A., Nassani, A. A., Aldakhil, A. M., Hinh Voo, X., & Zaman, K. (2021). Relationship of environment with technological innovation, carbon pricing, renewable energy, and global food production. *Economics of Innovation and New Technology*, 30(8), 807-842.

Arshed, N., Kalim, R., Iqbal, M., & Shaheen, S. (2022). Role of Real Sector and HDI: Does Competitiveness Contribute?. *Journal of the Knowledge Economy*, 1-27.

Arshed, N., Munir, M., & Iqbal, M. (2021). Sustainability assessment using STIRPAT approach to environmental quality: an extended panel data analysis. *Environmental Science and Pollution Research*, 28(14), 18163-18175.

Arshed, N., Sardar, M. S., & Iqbal, M. (2021). Can efficient transport moderate real sector productivity?. *Competitiveness Review: An International Business Journal*. Available at: <https://www.emerald.com/insight/content/doi/10.1108/CR-01-2021-0002/full/html>.

Azam, M., Rehman, Z. U., & Ibrahim, Y. (2022). Causal nexus in industrialization, urbanization, trade openness, and carbon emissions: Empirical evidence from OPEC economies. *Environment, Development and Sustainability*, 1-21.

Balin, B. E. (2021). Is Education Compulsory for Environmental Quality? An Empirical Study on EKC and Education Nexus. *Business & Economics Research Journal*, 12(1), 1-15.

Bilgili, F., Khan, M., & Awan, A. (2022). Is there a gender dimension of the environmental Kuznets curve? Evidence from Asian countries. *Environment, Development and Sustainability*, 1-32.

Cai, B., Guo, H., Cao, L., Guan, D., & Bai, H. (2018). Local strategies for China's carbon mitigation: An investigation of Chinese city-level CO<sub>2</sub> emissions. *Journal of Cleaner Production*, 178, 890-902.

Chekouri, S. M., Chibi, A., & Benbouziane, M. (2020). Examining the driving factors of CO<sub>2</sub> emissions using the STIRPAT model: the case of Algeria. *International Journal of Sustainable Energy*, 39(10), 927-940.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Chiang, C. A., & Wainwright K. (2005). *Fundamental Methods of Mathematical Economics*. 4th edition McGraw.Hill International.

Chu, L. K., & Le, N. T. M. (2022). Environmental quality and the role of economic policy uncertainty, economic complexity, renewable energy, and energy intensity: the case of G7 countries. *Environmental Science and Pollution Research*, 29(2), 2866-2882.

Danish., Baloch, M. A., & Wang, B. (2019). Analyzing the role of governance in CO<sub>2</sub> emissions mitigation: the BRICS experience. *Structural Change and Economic Dynamics*, 51, 119-125.

Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of business and psychology*, 29(1), 1-19.

Dogan, E., & Inglesi-Lotz, R. (2020). The impact of economic structure to the environmental Kuznets curve (EKC) hypothesis: evidence from European countries. *Environmental science and pollution research*, 27(11), 12717-12724.

Dou, Y., Zhao, J., Malik, M. N., & Dong, K. (2021). Assessing the impact of trade openness on CO<sub>2</sub> emissions: evidence from China-Japan-ROK FTA countries. *Journal of Environmental Management*, 296, 113241.

Dutt, A. K. (2006). Aggregate demand, aggregate supply and economic growth. *International review of applied economics*, 20(3), 319-336.

Erdoğan, S. (2021). Dynamic nexus between technological innovation and building sector carbon emissions in the BRICS countries. *Journal of Environmental Management*, 293, 112780.

Erdoğan, S., Onifade, S. T., Altuntaş, M., & Bekun, F. V. (2022). Synthesizing urbanization and carbon emissions in Africa: how viable is environmental sustainability amid the quest for economic growth in a globalized world?. *Environmental Science and Pollution Research*, 29(16), 24348-24361.

Erdoğan, S., Yıldırım, S., Yıldırım, D. Ç., & Gedikli, A. (2020). The effects of innovation on sectoral carbon emissions: evidence from G20 countries. *Journal of environmental management*, 267, 110637.

Galeotti, M., Manera, M., & Lanza, A. (2009). On the robustness of robustness checks of the environmental Kuznets curve hypothesis. *Environmental and Resource Economics*, 42(4), 551.

Ganda, F. (2021). The non-linear influence of trade, foreign direct investment, financial development, energy supply and human capital on carbon emissions in the BRICS. *Environmental Science and Pollution Research*, 28(41), 57825-57841.

Gardner, G. T., & Stern, P. C. (1996). *Environmental problems and human behavior*. Allyn & Bacon.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Grossman, G. M., & Krueger, A. B. (1991). Environmental impacts of a North American free trade agreement (No. w3914). *National Bureau of Economic Research*.

Habiba, U., & Xinbang, C. (2022). The impact of financial development on CO<sub>2</sub> emissions: new evidence from developed and emerging countries. *Environmental Science and Pollution Research*, 29(21), 31453-31466.

Haldar, A., & Sethi, N. (2021). Effect of institutional quality and renewable energy consumption on CO<sub>2</sub> emissions— an empirical investigation for developing countries. *Environmental Science and Pollution Research*, 28(12), 15485-15503.

Hassan, M. S., Iqbal, M., & Arshed, N. (2021). Distribution-based effects of disaggregated GDP and environmental quality—a case of quantile on quantile estimates. *Environmental Science and Pollution Research*, 28(22), 28081-28095.

Hove, S., & Tursoy, T. (2019). An investigation of the environmental Kuznets curve in emerging economies. *Journal of Cleaner Production*, 236, 117628.

Huang, S. Z., Sadiq, M., & Chien, F. (2021). The impact of natural resource rent, financial development, and urbanization on carbon emission. *Environmental Science and Pollution Research*, 1-13.

Ibrahim, R. L. (2022). Post-COP26: can energy consumption, resource dependence, and trade openness promote carbon neutrality? Homogeneous and heterogeneous analyses for G20 countries. *Environmental Science and Pollution Research*, 1-12.

Iqbal, M., Kalim, R., & Arshed, N. (2019). Domestic and foreign incomes and trade balance—a case of south Asian economies. *Asian Development Policy Review*, 7(4), 355-368.

Iqbal, M., ur Rehman, H., Arshed, N., & Sardar, M. S. (2021). The macroeconomic and demographic determinants of saving behavior in selected countries of Asia. *Journal global policy and governance*, 10(1), 49-65.

Işık, C., Ongan, S., Bulut, U., Karakaya, S., Irfan, M., Alvarado, R., ... & Rehman, A. (2022). Reinvestigating the Environmental Kuznets Curve (EKC) hypothesis by a composite model constructed on the Arme curve hypothesis with government spending for the US States. *Environmental Science and Pollution Research*, 29(11), 16472-16483.

Jena, P. K., Mujtaba, A., Joshi, D. P. P., Satrovic, E., & Adeleye, B. N. (2022). Exploring the nature of EKC hypothesis in Asia's top emitters: role of human capital, renewable and non-renewable energy consumption. *Environmental Science and Pollution Research*, 1-20.

Jiang, Y., Batool, Z., Raza, S. M. F., Haseeb, M., Ali, S., & Zain Ul Abidin, S. (2022). Analyzing the Asymmetric Effect of Renewable Energy Consumption on Environment in



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

STIRPAT-Kaya-EKC Framework: A NARDL Approach for China. *International Journal of Environmental Research and Public Health*, 19(12), 7100.

Karahasan, B. C., & Pinar, M. (2022). The environmental Kuznets curve for Turkish provinces: a spatial panel data approach. *Environmental Science and Pollution Research*, 29(17), 25519-25531.

Keynes, J. M. (1937). The general theory of employment. *The quarterly journal of economics*, 51(2), 209-223.

Khan, I., Hou, F., Zakari, A., Irfan, M., & Ahmad, M. (2022). Links among energy intensity, non-linear financial development, and environmental sustainability: New evidence from Asia Pacific Economic Cooperation countries. *Journal of Cleaner Production*, 330, 129747.

Khan, M. K., Trinh, H. H., Khan, I. U., & Ullah, S. (2022). Sustainable economic activities, climate change, and carbon risk: an international evidence. *Environment, Development and Sustainability*, 24(7), 9642-9664.

Khan, Z., Ali, S., Dong, K., & Li, R. Y. M. (2021). How does fiscal decentralization affect CO<sub>2</sub> emissions? The roles of institutions and human capital. *Energy Economics*, 94, 105060.

Khan, Z., Ali, M., Kirikkaleli, D., Wahab, S., & Jiao, Z. (2020). The impact of technological innovation and public-private partnership investment on sustainable environment in China: Consumption-based carbon emissions analysis. *Sustainable Development*, 28(5), 1317-1330.

Khan, A. G., Hossain, M., & Chen, S. (2021). Do financial development, trade openness, economic development, and energy consumption affect carbon emissions for an emerging country?. *Environmental Science and Pollution Research*, 28(31), 42150-42160.

Kiliç, C., & Balan, F. (2018). Is there an environmental Kuznets inverted-u shaped curve?. *Panoeconomicus*, 65(1), 79-94.

Kilinc-Ata, N., & Likhachev, V. L. (2022). Validation of the environmental Kuznets curve hypothesis and role of carbon emission policies in the case of Russian Federation. *Environmental Science and Pollution Research*, 1-16.

Kim, D. H., Wu, Y. C., & Lin, S. C. (2022). Carbon dioxide emissions, financial development and political institutions. *Economic Change and Restructuring*, 55(2), 837-874.

Lin, X., Zhao, Y., Ahmad, M., Ahmed, Z., Rjoub, H., & Adebayo, T. S. (2021). Linking innovative human capital, economic growth, and CO<sub>2</sub> emissions: an empirical study based on Chinese provincial panel data. *International journal of environmental research and public health*, 18(16), 8503.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Liu, D., & Xiao, B. (2018). Can China achieve its carbon emission peaking? A scenario analysis based on STIRPAT and system dynamics model. *Ecological indicators*, 93, 647-657.

Long, X., Luo, Y., Wu, C., & Zhang, J. (2018). The influencing factors of CO<sub>2</sub> emission intensity of Chinese agriculture from 1997 to 2014. *Environmental Science and Pollution Research*, 25(13), 13093-13101.

Mehmood, U. (2022). Investigating the linkages of female employer, education expenditures, renewable energy, and CO<sub>2</sub> emissions: application of CS-ARDL. *Environmental Science and Pollution Research*, 1-6.

Mensah, C. N., Long, X., Dauda, L., Boamah, K. B., & Salman, M. (2019). Innovation and CO<sub>2</sub> emissions: the complementary role of eco-patent and trademark in the OECD economies. *Environmental Science and Pollution Research*, 26(22), 22878-22891.

Mensah, C. N., Long, X., Boamah, K. B., Bediako, I. A., Dauda, L., & Salman, M. (2018). The effect of innovation on CO<sub>2</sub> emissions of OCED countries from 1990 to 2014. *Environmental Science and Pollution Research*, 25(29), 29678-29698.

Muhammad, S., Pan, Y., Agha, M. H., Umar, M., & Chen, S. (2022). Industrial structure, energy intensity and environmental efficiency across developed and developing economies: The intermediary role of primary, secondary and tertiary industry. *Energy*, 247, 123576.

Musah, M., Kong, Y., Mensah, I. A., Antwi, S. K., & Donkor, M. (2021). The connection between urbanization and carbon emissions: a panel evidence from West Africa. *Environment, Development and Sustainability*, 23(8), 11525-11552.

Obobisa, E. S., Chen, H., & Mensah, I. A. (2022). The impact of green technological innovation and institutional quality on CO<sub>2</sub> emissions in African countries. *Technological Forecasting and Social Change*, 180, 121670.

Omri, A., & Afi, H. (2020). How can entrepreneurship and educational capital lead to environmental sustainability?. *Structural Change and Economic Dynamics*, 54, 1-10.

Ongan, S., Işık, C., Bulut, U., Karakaya, S., Alvarado, R., Irfan, M., ... & Hussain, I. (2022). Retesting the EKC hypothesis through transmission of the ARMEY curve model: an alternative composite model approach with theory and policy implications for NAFTA countries. *Environmental Science and Pollution Research*, 1-13.

Petrović, P., & Lobanov, M. M. (2022). Impact of financial development on CO<sub>2</sub> emissions: improved empirical results. *Environment, Development and Sustainability*, 24(5), 6655-6675.

Powell, D. (2016). Quantile regression with nonadditive fixed effects. *Quantile Treatment Effects*, 1(28).





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Prasetyani, D., Putro, T. R., & Rosalia, A. C. T. (2021, November). Impact of CO2 emissions on GDP per capita, FDI, forest area and government spending on education in Indonesia 1991-2020: The GMM methods. In *IOP Conference Series: Earth and Environmental Science* (Vol. 905, No. 1, p. 012131). IOP Publishing.

Rahman, M. M., Sultana, N., & Velayutham, E. (2022). Renewable energy, energy intensity and carbon reduction: Experience of large emerging economies. *Renewable Energy*, 184, 252-265.

Raza, S. A., & Shah, N. (2018). Testing environmental Kuznets curve hypothesis in G7 countries: the role of renewable energy consumption and trade. *Environmental Science and Pollution Research*, 25(27), 26965-26977.

Salem, S., Arshed, N., Anwar, A., Iqbal, M., & Sattar, N. (2021). Renewable energy consumption and carbon emissions—testing nonlinearity for highly carbon emitting countries. *Sustainability*, 13(21), 11930.

Sardar, M. S., Rehman, H. U. (2022). Transportation moderation in agricultural sector sustainability—a robust global perspective. *Environmental Science and Pollution Research*, 1-16.

Sarwar, S., Streimikiene, D., Waheed, R., & Mighri, Z. (2021). Revisiting the empirical relationship among the main targets of sustainable development: Growth, education, health and carbon emissions. *Sustainable Development*, 29(2), 419-440.

Selden, T. M., & Song, D. (1994). Environmental Quality and Development: Is There a Kuznets Curve for Air Pollution Emissions? *Journal of Environmental Economics and Management*, 27(2), 147–162.

Shah, S. A. A., Shah, S. Q. A., & Tahir, M. (2022). Determinants of CO2 emissions: Exploring the unexplored in low-income countries. *Environmental Science and Pollution Research*, 1-9.

Shahbaz, M. (2022). Globalization–emissions nexus: testing the EKC hypothesis in Next-11 Countries. *Global Business Review*, 23(1), 75-100.

Shahzad, F., Fareed, Z., Wan, Y., Wang, Y., Zahid, Z., & Irfan, M. (2022). Examining the asymmetric link between clean energy intensity and carbon dioxide emissions: The significance of quantile-on-quantile method. *Energy & Environment*, 0958305X2211020. <https://doi.org/10.1177/0958305x221102049>

Shokoohi, Z., Dehbidi, N. K., & Tarazkar, M. H. (2022). Energy intensity, economic growth and environmental quality in populous Middle East countries. *Energy*, 239, 122164.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Sinha, A., Sengupta, T., & Alvarado, R. (2020). Interplay between technological innovation and environmental quality: formulating the SDG policies for next 11 economies. *Journal of Cleaner Production*, 242, 118549.

Stern, D. I., Common, M. S., & Barbier, E. B. (1996). Economic growth and environmental degradation: The environmental Kuznets curve and sustainable development. *World Development*, 24(7), 1151–1160.

Sun, W., & Huang, C. (2020). How does urbanization affect carbon emission efficiency? Evidence from China. *Journal of Cleaner Production*, 272, 122828.

Sun, Y., Li, H., Andlib, Z., & Genie, M. G. (2022). How do renewable energy and urbanization cause carbon emissions? Evidence from advanced panel estimation techniques. *Renewable Energy*, 185, 996-1005.

Sun, H., Enna, L., Monney, A., Tran, D. K., Rasoulinezhad, E., & Taghizadeh-Hesary, F. (2020). The long-run effects of trade openness on carbon emissions in sub-Saharan African countries. *Energies*, 13(20), 5295.

Tan, F., Yang, S., & Niu, Z. (2022). The impact of urbanization on carbon emissions: Both from heterogeneity and mechanism test. *Environment, Development and Sustainability*, 1-17.

Todaro, M. P., & Smith, S. C. (2015). *Economic Development*. 12th edition Pearson USA.

Tsaurai, K. (2019). The impact of financial development on carbon emissions in Africa. *International Journal of Energy Economics and Policy*, 9(3), 144.

Ullah, S., Ozturk, I., Majeed, M. T., & Ahmad, W. (2021). Do technological innovations have symmetric or asymmetric effects on environmental quality? Evidence from Pakistan. *Journal of cleaner production*, 316, 128239.

uz Zaman, Q., Wang, Z., Zaman, S., & Rasool, S. F. (2021). Investigating the nexus between education expenditure, female employers, renewable energy consumption and CO<sub>2</sub> emission: Evidence from China. *Journal of Cleaner Production*, 312, 127824.

Wang, M., Arshed, N., Munir, M., Rasool, S. F., & Lin, W. (2021). Investigation of the STIRPAT model of environmental quality: a case of nonlinear quantile panel data analysis. *Environment, development and sustainability*, 23(8), 12217-12232.

Wang, Z., & Zhu, Y. (2020). Do energy technology innovations contribute to CO<sub>2</sub> emissions abatement? A spatial perspective. *Science of the Total Environment*, 726, 138574.

Wang, Q., & Zhang, F. (2021). The effects of trade openness on decoupling carbon emissions from economic growth—evidence from 182 countries. *Journal of cleaner production*, 279, 123838.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

World Bank Institute (2007). *Measuring Knowledge in the World's Economies*. Knowledge for Development Program.

Xu, B., Li, S., Afzal, A., Mirza, N., & Zhang, M. (2022). The impact of financial development on environmental sustainability: A European perspective. *Resources Policy*, 78, 102814.

Yang, B., Ali, M., Hashmi, S. H., & Jahanger, A. (2022). Do income inequality and institutional quality affect CO<sub>2</sub> emissions in developing economies?. *Environmental Science and Pollution Research*, 29(28), 42720-42741.

Yang, Z., Cai, J., Lu, Y., & Zhang, B. (2022). The Impact of Economic Growth, Industrial Transition, and Energy Intensity on Carbon Dioxide Emissions in China. *Sustainability*, 14(9), 4884.

Yao, X., Huang, R., & Song, M. (2019). How to reduce carbon emissions of small and medium enterprises (SMEs) by knowledge sharing in China. *Production Planning & Control*, 30, 881-892.

Yuan, B., Li, C., Yin, H., & Zeng, M. (2022). Green innovation and China's CO<sub>2</sub> emissions—the moderating effect of institutional quality. *Journal of Environmental Planning and Management*, 65(5), 877-906.

Zhang, P., & Wang, H. (2022). Do provincial energy policies and energy intensity targets help reduce CO<sub>2</sub> emissions? Evidence from China. *Energy*, 245, 123275.

Zhang, S., & Zhao, T. (2019). Identifying major influencing factors of CO<sub>2</sub> emissions in China: regional disparities analysis based on STIRPAT model from 1996 to 2015. *Atmospheric Environment*, 207, 136-147.

Zhang, M., Ajide, K. B., & Ridwan, L. I. (2022). Heterogeneous dynamic impacts of nonrenewable energy, resource rents, technology, human capital, and population on environmental quality in Sub-Saharan African countries. *Environment, Development and Sustainability*, 24(10), 11817-11851.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Appendix (A1)**

**Table 4 – Very High HDI Countries List**

No.	Countries	No.	Countries	No.	Countries
1	Argentina	21	Germany	41	New Zealand
2	Australia	22	Greece	42	Oman
3	Austria	23	Hungary	43	Panama
4	Bahamas,The	24	Iceland	44	Poland
5	Bahrain	25	Ireland	45	Portugal
6	Belarus	26	Israel	46	Romania
7	Belgium	27	Italy	47	Russian Federation
8	Brunei Darussalam	28	Japan	48	Saudi Arabia
9	Canada	29	Kazakhstan	49	Serbia
10	Chile	30	Korea, Rep.	50	Singapore
11	Costa Rica	31	Kuwait	51	Slovak Republic
12	Croatia	32	Latvia	52	Slovenia
13	Cyprus	33	Lithuania	53	Spain
14	Czechia	34	Luxembourg	54	Sweden
15	Denmark	35	Malaysia	55	Switzerland
16	Estonia	36	Malta	56	Thailand
17	Finland	37	Mauritius	57	Turkiye
18	France	38	Montenegro	58	United Arab Emirates
19	Georgia	39	Netherlands	59	United Kingdom
20	United States	40	Uruguay		



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Role of Corporate Governance to Mitigate the Idiosyncratic Risk in Pakistan**

Muhammad Yaseen

University of Veterinary & Animal Science, Lahore

### **Abstract**

There have been various discussions on the issue of the effects of corporate Governance on idiosyncratic risk so far. From this perspective, the primary focus of this study is to identify the relationship between idiosyncratic risk and corporate Governance. The data used in this study are taken from the PSE, the 104 listed firms for the year's 2004-2016. The primary conclusion of the study is that there is a clear relationship between idiosyncratic risk and corporate governance. Empirical results reveal the significant impact of independent directors on the idiosyncratic risk and the negative impact of CEO duality on firm unsystematic risk.

This study opens new horizons and offers different prospects for future works. Firstly, research could extend over a longer period of time. Secondly, this study could be extended by conducting comparative studies with other firm to explore any differences in results.

**Keywords:** Idiosyncratic Risk, Corporate Governance, Firm Performance, Ownership Structure, Board Structure.

### **Introduction**

Although it has been 50 years since the Capital Asset Pricing Model (CAPM) was first formulated by Sharpe (1964), the asset-pricing literature has provided a theoretical and empirical still struggling to develop a sound asset pricing model. Roll (1988) notes that more than 60% of his monthly volatility in equities is unexplained, and emphasizes the need to relate this unexplained volatility to 'as yet unidentified' risk factors. . The significance of this idiosyncratic risk stems from its impact on investment decisions (Bali et al. 2008). Therefore, research has been devoted to explaining idiosyncratic risk, and many different potential determinants have been identified. Depending on the circumstances, no firm conclusions can be drawn about idiosyncratic risk factors.

The idiosyncratic interest in risk has spread to emerging markets, where equity returns are characterized because of greater volatility (Abou-Zaid 2011; Bekaert and Harvey 1995), more predictability and less predictability correlated with returns on developed market securities (Bekaert and Harvey 1995). Lee et al. (2004) shows that risk specific to emerging markets have increased significantly. However, Rahman et al. (2012) found that company-specific volatility could not be clearly explained by corporate fundamentals in Turkey financial markets and concludes that emerging markets do not embed company-specific information in stocks price.

The relationship between idiosyncratic risk and corporate governance is the main focus of this study. Corporate governance concerns the safety of the company and its shareholders, and ultimately of all its stakeholders (Denis & McConnell, 2003; Donaldson, 1990; Shleifer & Vishny, 1997; Turnbull, 1997 & 2002. Also from a purely financial point of view, governance strives to provide a safe environment in which shareholders and other financial stakeholders can



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

also be assured of a return on investment (Shleifer & Vishny, 1997). Corporate governance is the structure of regulation, processes, and measure by which a company is controlled and directed. Corporate governance basically engages in balancing the benefit of an organization many stakeholders, financiers, like shareholders, consumers, suppliers, management, government and the community by (Shailer, 2004). Researchers have long studied the relationship between corporate governance and risk. Researchers agree that accepted corporate governance practices are valued increasingly (Johl et al., 2016). Good corporate governance will add value to the business by narrowing the information gap between companies' resource management and the ultimate owner and keep the interests of both parties the same (Audoussert-Coulier et al., 2016).

According to researchers, the best CG companies outperform others in two ways: Better utilization of financial and human resources. Because enhanced agencies require less with cash, these companies pay higher dividends, resulting in higher share prices and corporate values. Second, better-governed firms don't need higher return on equity (ROE). Because the cost of monitoring management is lower for shareholders than for competitors (Shleifer and Vishny, 1997). Because of their excellent market reputation, well-governed firms can obtain external funds at lower rates (Nazir and Afza, 2018). Some researchers directly question this Describes the relationship between CG and business profitability, arguing that profits may outweigh through the cost of implementing an effective CG mechanism.

The relationship between idiosyncratic risk and corporate governance is the main objective of this study. However, this study does not focus on the information content established by Ferreira and Laux (2007), nor does it focus on the governance policy of anti-takeover provisions. Instead, this study examines the relationship between idiosyncratic risk and corporate governance, in terms of idiosyncratic volatility, and corporate governance in the context of internal governance controls. Research on internal governance control based on board size, ownership contraction, board meeting, audit committee meeting, board independent, institutional ownership, CEO duality and audit committee independence is appropriate for a market with internal governance control characteristics such as the Pakistan market.

To date, there have been few studies on the relationship between specific risks and corporate governance. For example (Alam and Shah (2013)) explore the relationship between corporate Governance and Firm risk in a sample of 106 publicly traded financial firms over a 6-year period (2015-2010). They investigated the negative relationship between corporate risk and ownership structure, and whether CEO duality had a positive effect on fire risk. (Javed and Iqbal (2007)) analyzed the relationship between corporate governance and the organization value of Pakistani stocks. They analyzed the relationship between firm values calculated using Tobin's Q and CG index (CGI). They analyze that corporate governance plays a large role in Pakistan and that not all corporate governance factors are important in the Pakistani market. To my knowledge, the correlation between specific risk and corporate governance has not been studied, in the context of a market characterized by internal governance control, such as the Pakistani market. Therefore, the secondary objective of this study was to examine this relationship in this context. In this process, the objective of this study is to explore the relationship between idiosyncratic





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

volatility and corporate governance, as well as organizational performance and corporate governance. The study attempts to explore the potential link between corporate governance, idiosyncratic volatility, and organizational performance. The remainder of this paper is organized as follows: Section 2 provides the Literature review and hypotheses development. The research methodology is presented in section 3. The results are discussed in section 4. Finally, the paper ends with some concluding remarks.

### **Literature Review**

Over the past 20 years, corporate governance has received considerable attention from practitioners, policymakers and academics. Solid corporate governance mechanisms enhance firm's performance by boosting economic efficiency and growth (Jensen and Meckling, 1976) and encouraging better risk-taking behaviour (John et al., 2008). Risk-taking is inherent to all financial and business activities, without which reward is unexpected. Excessive risk-taking, however, may generate undesirable and damaging consequences. A better understanding of the determinants of the firm's risk-taking and governance is needed to improve monitoring and decision-making and prevent crises and wealth destruction.

Extant research on corporate governance suggests a direct effect of governance on firm risk-taking (Akbar et al., 2017; Pathan, 2009; John et al., 2008). However, certain aspects of governance indirectly strengthen or weaken the effect of the remaining firm's governance mechanisms on firm risk-taking (through a moderating role). In this second section, to briefly review the literature and present hypotheses of the study.

### **CEO duality**

Chief Executive Officer (CEO) duality refers to the situation in which the same person holds two positions (CEO and Chairman of the Board) at the same time (Vintila and Duca (2013)). As a matter of fact, Fama and Jensen (1983) determined that duality reflects a lack of separation between controls, decisions and administrative decisions. They suggest that these combinations produce an important role in severe personal power that hinders the council's ability to properly execute Obligations to manage and direct the company. Jensen and Meckling (1976) propose to separate the responsibilities of CEO and protect the interests of shareholders and effectively manage or supervise management.

Certainly lack of functional duality ensuring that board decisions reflect the majority opinion not the dominant body (Ghazali (2010)). The duality increasing Agency costs due to the accumulation of power largely in the hands of individuals lack of people and control (Gul and Wah (2002)). The board of directors should favor a separate chief executive officer and chairman on the board, because of the duality of the chief executive officer allows executives to try, leading to opportunistic behavior that reduces share ownership wealth (Jensen and Meckling, 1976).

Previous research on associations there is conflicting results between the duality of roles and risk. While the some authors found a positive association (Beasley et al. (2000)). Others highlighted them Presence of negative relationships (Elzahar and Hussainey (2012) and Collins



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

et al. (2014)). According to agency theory, CEO duality can negatively impact the board's management and oversight role. It therefore harms the company's shareholders (Lipton and Lorsch, 1992). Jensen and Meckling (1976). This validates the following hypotheses:

*H1: There is a negative relation between board-CEO duality and risk.*

### **Board Gender Diversity**

Board Gender Diversity (BGD) is defined as the presence of a female director on a company's board (Carter et al., 2003). Previous research has shown that BGD has a significant impact on corporate governance since (a) Streamline decision-making processes for gender-specific organizations to demonstrate better leadership; (b) BGD improves decision-making processes and outcomes; directors are generally more ethical than men (Adams and Ferreira, 2009). However, the evidence for the relationship between BGD and corporate risk-taking is contradictory.

On the one hand, some studies show that women tend to be more risk averse than men (Berger et al., 2014), higher her BGD is associated with lower realized firm risk (Bernile et al., 2018). Meanwhile, other studies have found more women directors more willing to take risks than male. (Berger et al., 2014). Using a meta-analysis of 150 risk-taking studies, Byrnes et al. (1999) men tend to be more willing to accept risks and dangerous experiments than women. Using a sample of 41 Italian companies, Rossi et al. (2017) found a negative association between female directors and firms' risk. Adam and Ferreira (2009) found that firms with more volatile stock returns tended to employ fewer women. Using a sample of French firms, Bruna et al. (2019) find no support for a significant association between BGD and firm risk-taking. In addition, although board diversity may reduce firm risk, it does not always benefit shareholders. For instance, diversity can increase conflict and reduce group cohesion (Carter et al., 2003), and the decisions of diverse boards may reflect inefficiently low risk-taking due to frictions inside the board and the inability to reach consensus on riskier policies (Bernile et al., 2018).

We propose the following hypothesis:

*H2: A negative and significant relationship exists between BGD and risk.*

### **Independent Director.**

Fama and Jensen (1983) consider that the presence of independent directors on the board of directors should promote the control and therefore limit the managerial opportunism. Perhaps suggest that outside directors contribute to improving quality and integrity to make operational decisions and company performance. Agency theory Suggests independent directors reduce conflict of interest among managers and shareholders (Jensen and Meckling, 1976), bring new skills and Communicate knowledge and experience to the company (Pfeffer and Salancik, 1978), and inform stakeholders. The company can be trusted to make business decisions and take risks Actions are a true reflection of investment decisions made.

Previous studies have shown that Independent directors support and improve investment in low-risk projects (Pathan, 2009) and improve board effectiveness and monitoring, as they do not report to management and are primarily interested in safeguarding their reputation. (Firms, Brick and Chidambaran (2008)) report that independent directors adversely affect firms' risk Similarly,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

(Pathan (2009) finds that independent directors reduce firm risk, and Mathew et al. (2017) and Rossi (2016) make similar conclusions. Although some authors report a positive relationship (Abraham and Cox (2007) and El Shandidi et al. (2013). Some emphasize the existence of negative relationships (Lopez and Rodriguez (2007) and Al-Magzom et al. (2016)). As far as we are concerned, we believe there is a positive relationship between director independence and risk. The following hypothesis is consequently tested:

*H3: There is a positive relationship between independent directors and risk.*

### **Concentrated Ownership**

Shleifer and Vishny (1997) argue that concentrated ownership is essential and effective governance Mechanism for resolving agency disputes caused by separation of company ownership and control. Major shareholders are the ones who play an important role in the corporate governance structure. They have the ability, means and incentive to monitor companies to maximize their profits (Shleifer and Vishny, 1997). John et al. (2008) suggested that the presence of some shareholders can mitigate agency problems related to poor internal governance mechanisms. By alleviating agency problems associated with risk, they are expected to increase the firm's risk to the optimal level.

Empirical evidence shows that firms with highly centralized ownership positively associated with firm risk-taking. For example, Faccio et al. (2011) support this argument, showing that ownership concentration has increased positively and have a significant effect on the firm's risk tolerance. Hutchinson et al. (2015) report effect of institutional holdings on Firm risk in a sample of Australian firms. Research by Haniffa and Cooke (2002) on the Malaysian context and Chakroun and Matoussi (2012) on the Tunisian context demonstrates the existence of a negative relationship between concentration ownership and risk. Some authors have given positive results (Elshandidy et al. (2013)). Others have confirmed the existence of a negative relationship (Konishi, Ali (2007) and Oliveira et al (2011). For us, we assume a negative relationship between ownership structure and risk. Therefore, the following hypothesis is tested:

*H4: There is a negative relationship between ownership structure and risk.*

### **Audit Committee**

Audit committee is an oversight committee under the main board of directors. The Audit Committee is an oversight committee that reports to the main Board of Directors. The advice of directors has delegated responsibility for the company's reporting process to the audit committee (Bedard and Gendron (2010). It helps to reduce information asymmetry between insiders and outsiders. The most active committees can exercise more effective governance and control their responsibilities (Abbott et al. (2000), Collier and Gregory (1999), DeZoort et al. (2002), Karamanou and Valeas (2005) and Barako et al. (2006)). The regularity of meetings reduces fraudulent actions (Chen et al. (2006)). Karamanou and Vafeas (2005) as well as Allegrini and Greco (2013) suggest that there is a positive relationship between regularity of audit committee meetings and communication. Al-Magzom et al. (2016) highlights the negative association between audit activity committee and risk Likewise, we share the same perception on the positive side impact between audit committee meetings and risk disclosures. Therefore, our



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

hypothesis is presented as follows:

*H5: There is a positive relationship between audit committee meetings and risk.*

## Research methodology

### Source of data and sample

Quantitative data are used in this research. Quantitative data incorporate numerical figures expressing certain quantity, amount or scale (Lind et al., 2015). To attain the objectives of the study, panel data regression models, are examined by SPSS Software. The statistical process is done through collecting secondary data, testing of hypothesis and identifying of causal relationship. The data is collected by the financial statement of non- financial sector listed in Pakistan stock exchange under SECP, (Securities Exchange Commission of Pakistan) based on the annual report of each company from 2003 to 2015. The secondary data, which are gained from the information published by the company, like annual reports, and other reliable sources, are used in this study.

### Measures

The independent variable is Idiosyncratic. Corporate governance, as the dependent variable, assessed by the internal governance mechanism, is described into four indicators, which are the board size, board independence, and board gender and board ownership. Control variables that may affect the dependent variables are considered in the models (Lind et al., 2015). The summary of variable measurements is provided in Table II

**Table 2. Summary of variable names, description and sources**

Sr. No	Abbreviated name	Variables	Hypothesis	Measurement
Dependent variables				
1	IR	Idiosyncratic risk		
Independent variables				
2	CD	CEO Duality	H1	Coded “1” if Chairman also holds the position of CEO and “0” otherwise (VO & PHAN, 2013)
3	BI	Board independence	H3	Number of non-executive directors on the board (VO & PHAN, 2013)
4	OC	Ownership concentration	H4	Concentration measures refer to holdings of largest block holder ((Earle et al. 2005)
5	AC	Audit committee	H5	Audit committee meetings, number of audit committee meetings held during the fiscal year (Juhmani, 2017)
6	BGD	Boar Gender Diversity	H2	Percentage of total number of females on the board of the company.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Research model**

This study intends to show whether corporate governance has an impact on firm risks. A detail examination is conducted to see the correlation between the Corporate Governance (CG) and firm risks. Regression models are formulated as follows:

$$Ido_{it} = \alpha + \beta CD_{it} + \beta BGD_{it} + \beta BI_{it} + \beta OC_{it} + \mu_{it}$$

Where Ido = Idiosyncratic Risk

CD = CEO duality

BGD = Board Gender diversity

BI = Board independence

CD = Ownership concentration

CD<sub>it</sub> = Audit committee





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Does social media influence firm performance? Evidence from developing country**

Dr. Samar Rahi

University of the Punajab, Lahore

Muhammad Atif Saddal

University of the Punajab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore.

Dr. Talet Islam

University of the Punjab, Lahore.

Muhammad Kashif

Foundation University, Karachi

**Abstract**

Due to globalization firms need to be innovative in introducing new products and services. Therefore, this study examines how social media bring ease in buying and improve firms overall performance. We highlighted different elements such as Innovativeness, compatibility, customer information, rapid customer service, Brand visibility and cost effectiveness. We found that all these elements have positive effect on social media usage and firms performance in B2B organizations. We analyzed that social media tools provides way to produce innovative products, to improve quality of existing products , to advertise products to targeted audience , to know about the latest features of products trending in the market , to produce the products with different new innovative features in order to achieve desired targets.

The main discovery of this research provides the detailed knowledge of different innovative social media tools which can be used by the organizations in order to be innovative in all aspects and provide greater satisfaction to customers by improving the quality of existing products and producing new innovative products with advanced new features, to build business relationships with people by getting access of information of them through social media usage and to meet the expectations of customers by knowing the actual needs and demands.

**Keywords:** Diffusion of innovation theory, Compatibility, Innovativeness, Rapid Customer Service, Brand visibility, Customer Information, Cost effectiveness, Firms performance, Social Competency.

**Introduction**

In competitive market, everyone wants to be successful in the achievement of overall business goals. A lot of competition exist in the market and all the suppliers wants to provide the superior quality to the customers in order to build the business relationship and to build the trust with customers. The main problem is this we are not have proper knowledge and information about the market, trends and actual expectations of customers and even we don't have any new strategies and ideas which enables us to provide the innovative products to customers with the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

addition of new features. Every firm needs to be innovative in product development and process improvement. Mostly companies are not fully aware about the needs and wants of customers. Companies don't have proper strategies which enables them to improve the overall firm performance. Now the need is that companies should formulate proper strategies and implementation of it. Firms have to find out the ways to be innovative as people like the new features and excellent quality of products. In order to provide the detailed knowledge and experiences of customers regarding usage of products and their feedback which enable firms to cover the deficiencies in their existing produced products and to produce new innovative products with new features by reading out the positive and negative reviews of the users, this research will make it possible by highlighting the impacts of social media on firms performance and covering the need of B2B organization to be innovative overall, which comprises internet based applications such as Face-book, Instagram, Linked-in and you-tube. The need of firms to be innovative in order to achieve overall organizational goals, the use of that social media platform is rising day by day. This research not only talk about the need of firms to be innovative but also explained the need of 15 social media platform that improves the firms performance in B2B organizations and makes it possible to be innovative in all aspects such as in improving existing products quality, producing new innovative products and improving manufacturing process by providing fastest, easiest and cheapest way to communicate, building business relationships with customers. Previous research found the Use of social media is increasing rapidly which helps the organization in many ways. There is a lot of previous research date regarding this but according to my point of view more research is require to further investigate to what extent the social media is beneficial for organizations performance and innovation.

### **LITERATURE REVIEW**

This phase will show that at how much rate the innovation is spreading and how it increases the use of social media which helps in improving firms overall performance in B2B organizations.

#### **Brand visibility**

Today organizations mainly depends on social media for the visibility of their brands. Posting videos and images relating products knowledge and features on face-book, Instagram and on linked-in will be a fastest way to introduce products to social media users (Shaikh, Glavee-Geo et al. 2018). Involvement, Interaction and Influence factors considered most important to see if we want to make our brands visible to large number of people. We can visible our brands in different ways which include advertising through different suitable channels, online ads, search engines and through emails (GhavamiLahiji 2016). Interaction can be judged by capturing the viewers action towards channels by posting images and videos (Sawyer and Chen 2012). Involvement means presence of the persons on the channel and average time they are spending on it (McClure and Seock 2020) Influence means the number of invitations send by the persons to other to join this according to their experiences (Vollenbroek, De Vries et al. 2014). Social media plays very important and helpful role in visibility of brands and firms performance through different channels of advertising usage like face-book, Linked-in and you-tube etc.

**Hypothesis 01** Online brand visibility has a positive impact on firm's performance.

social media can be an effective way to get a lot of customer information and knowledge in order to achieve the organization goals (Chua and Banerjee 2013) Approach such as linked-in tool



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

which contain a lot of profiles of professionals. We can get the required information and knowledge with the help of linked-in social media tool (Damnjanović, Matović et al. 2012) Facebook is the social media tool through which we can find many customers and get contact information (Ainin, Naqshbandi et al. 2015) Facebook will automatically suggest you related profiles such as eye surgeons to be friend with. By sending messages containing the services you offer to doctors we can build business relationships with doctors. When you get touch with many doctors, one of them must ask you to send a sample first to check the quality of instruments or maybe they will direct order you to provide a list of instruments both locally and abroad (Chu 2011)

**Hypothesis 02** Customer information through linked-in and face-book has a positive influence on social media usage.

#### **Cost Effectiveness**

Cost is considered key factor in making any business decision and adoption of new technology. Some previous research findings says that cost effectiveness has no effect on adoption of technology and some findings says that cost effectiveness has a significant effect on adoption of technology (Claxton 2008) Small and medium term enterprises have to be careful in adoption of technology due to lower funds than large organizations. Adoption of expensive technologies in not difficult for large organizations than SME's (Charoensukmongkol and Sasatanun 2017) On the basis of previous and current research, social media tools like face-book, linked-in and you-tube is the effective way to grow business for SME's. face-book and linked-in is cost effective way to advertise our products, getting new customers, building customer relationships and making higher profits with lower cost (Curran, Graham et al. 2011; Gamboa and Gonçalves 2014)

**Hypothesis 03** Cost effectiveness of technology has positive influence on its adoption and social media usage

**Hypothesis 04** Cost effectiveness has a positive influence on firm's performance.

Diffusion of innovation theory: Basically diffusion of innovation itself is the process that people adopt new technology and new ideas. The question is that why and how many people need to adopt new technology and ideas. Customers want excellent quality of products and a lot of competition exist in the market.. Researchers found that social media is an effective tool comprises of internet based application which enables firms to achieve their goals. Diffusion of innovation , social media usage and firms performance are connected with each other in many aspects.

#### **Compatibility**

Compatibility is very important factor in adoption of new technology and idea (Mairura, Ngugi et al. 2016) Basically the considerable point to adopt new technology is the people belief that the use of this will be helpful in the performance outcome (Selase, Selase et al. 2019) Usefulness of technology is a major factor to adopt technology as it allows users to give preference to use that because of ease of technology usage with little effort which saves time also. People compare the new technology with previous technologies which they experienced in positive or negative form (Meyer 2007)

**Hypothesis 05** Compatibility has a positive effect on the adoption of new technology and firm's



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
performance.

### **Innovativeness**

Social media and innovation has a very strong relationship with each other (Meyer 2007) Social media help firms in getting new ideas, techniques and ways to produce new designed products by getting a lot of knowledge through social media channels. (Charoensukmongkol and Sasatanun 2017) Firms can get improve the quality of products which they feel necessary to improve by looking at the negative comments of customers after usage of products on face-book (Mazzucchelli, Chierici et al. 2021) Basically innovation actually means to turn an idea into a new product that can be possible through social media usage.

**Hypothesis 06** Excessive requirement of innovation for the success of organizations improve the social media usage.

### **Social Competency and firm's performance**

Social Competence is important for development and implementation business. Effort efficiency such as enough knowledge about products, markets, customer needs and wants, skills and ability to satisfy, desire to work such as doing things efficiently. Many possible variants explain the efficiency of effort, these are knowledge, cognitive abilities, Self-Management, People resources, Decision Making, Leadership, recognition of opportunities and development of opportunities (Ismail 2012) Most important factors in social competency for excellent firms performance includes social adaptability which means ability to adopt ideas of others. Social perception and expressiveness factors are also important for excellent firms performance.

**Hypothesis 07** Social capital development for firm's excellent performance is not possible without social competency.

**Hypothesis 08** Social competency has a positive influence on social media usage. **Hypothesis 09** Social competency has a positive impact on firm's performance.

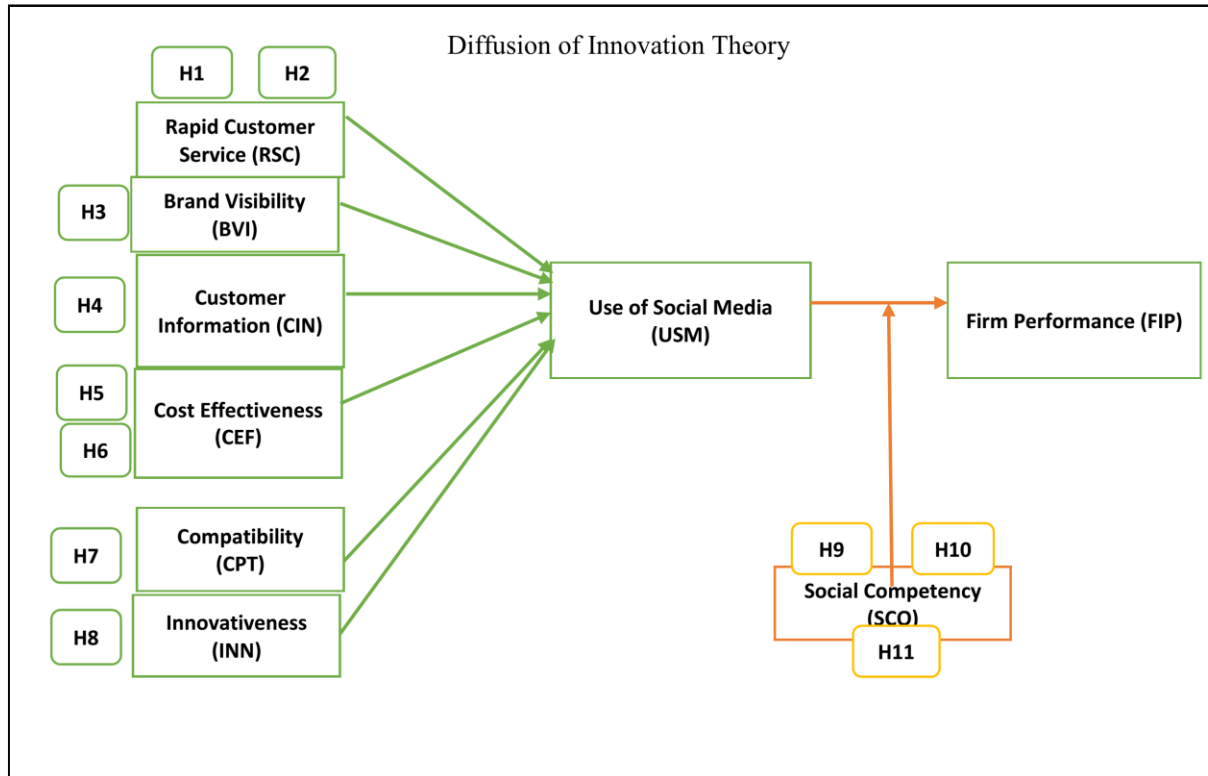
### **Rapid Customer Service**

Customer service is the key element in the growth of any business (Zhang, Liang et al. 2016) People will come on the point where they get better quality services. Quality customer service depends of many factors which include the environment they offered, Timely serving and polite manner. If anyone fails to fulfil the expectations of customers by providing then fast services then goals of the business could not be achieved (Lewis and Mitchell 1990) A business/firm with good customer service can easily satisfy the customers and can win the trust of customers. As if the customer served with a respectable manner, in a polite manner then customer will obvious will response in the same polite and respectable manner. Basically it totally depends the employee's loyalty of the firm/company. Employee's loyalty is considered very major factor in the success of any business (Yee, Yeung et al. 2010; de Waal and van der Heijden 2016)

**Hypothesis 10** Rapid customer service has a positive influence on firm's performance.

**Hypothesis 11** Employee's loyalty has a positive influence on firm's performance





### **Moderating effect of social competency**

Social competency can be defined as the ability to interact socially. Effectiveness is considered in the broad sense and includes meanings from personal and other perspectives includes send and receive emotional messages effectively and efficiently with experiencing ability affect. People who are social competent means who have skills to interact people online, who have good communication skills, who have skills to convey messages effectively, who have ability to convince people can easily improves performance by getting new customers through social media. So Social competency give rise to usage of social media which directly improves the firms performance. Firm's performance and usage of social media chiefly depends on social competency.

### **METHODOLOGY**

This research is conducted according to the positive paradigm, by scientific method in order to get true knowledge(Rahi 2017) Deductive level approach is used to test an existing theory by collecting fresh date from respondents and observe finding by applying statistical tests(Van Wyk 2012) (Rahi 2017)Quantitative method is applied for this study as the research has not been inducting new theory rather dealing and examining an existing theory by applying statistical tools (Lunenfeld 2003) (Rahi 2017)Date is collected through questionnaire as the data is based on quantitative method. In Questionnaire Likert-type scale is used to measure observations and attitudes.1 to 5 Point Likert-type scale is used as it was used to increase response rate (Rahi





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
2017) (Arnold, McCroskey et al. 1967).

## CONCLUSION

This section will help the reader why this research should matter. Every business wants to grow faster with lowest cost and highest profit, to get new ideas and wants to convert ideas into new innovative production. This study clears the way for those who wants to be successful in business by highlighting various elements which enables firms to improve overall performance through social media usage. Those who are not able to afford high expenses in advertisement of products, they can get help from social media channels in visibility of their products to a large number of people with lowest cost. We can get a lot of customer information and saves cost through social media channels in order to build business relationships. Finally, we concluded that social media is the cost effective way to grow business with lower budget in order to be innovative.

## REFERENCES

- Ainin, S., M. M. Naqshbandi, et al. (2015). "Facebook usage, socialization and academic performance." Computers & Education **83**: 64-73.
- Arnold, W. E., J. C. McCroskey, et al. (1967). "The Likert-type scale."
- Charoensukmongkol, P. and P. Sasatanun (2017). "Social media use for CRM and business performance satisfaction: The moderating roles of social skills and social media sales intensity." Asia Pacific Management Review **22**(1): 25-34.
- Chu, S.-C. (2011). "Viral advertising in social media: Participation in Facebook groups and responses among college-aged users." Journal of interactive advertising **12**(1): 30-43.
- Chua, A. Y. and S. Banerjee (2013). "Customer knowledge management via social media: the case of Starbucks." Journal of Knowledge Management.
- Claxton, K. (2008). "Exploring uncertainty in cost-effectiveness analysis." Pharmacoeconomics **26**(9): 781-798.
- Curran, K., S. Graham, et al. (2011). "Advertising on facebook." International Journal of E-business development **1**(1): 26-33.
- Damnjanović, V., V. Matović, et al. (2012). "The role of the LinkedIn social media in building the personal image." Journal for Theory and Practice Management **65**: 15-23.
- de Waal, A. and B. van der Heijden (2016). "Increasing customer loyalty and customer intimacy by improving the behavior of employees." Journal of Strategy and Management.
- Gamboa, A. M. and H. M. Gonçalves (2014). "Customer loyalty through social networks: Lessons from Zara on Facebook." Business horizons **57**(6): 709-717.
- GhavamiLahiji, S. (2016). "The Effect of Email Marketing on Buyers' Behavior." International Journal of Innovative and Applied Research **4**(1): 77-80.
- Ismail, T. (2012). "The development of entrepreneurial social competence and business network to improve competitive advantage and business performance of small medium sized enterprises: A case study of batik industry in Indonesia." Procedia-Social and Behavioral Sciences **65**: 46-51.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Lewis, B. R. and V. W. Mitchell (1990). "Defining and measuring the quality of customer service." Marketing intelligence & planning.

Lunenfeld, P. (2003). Design research: Methods and perspectives, MIT press.

Mairura, K. O., P. K. Ngugi, et al. (2016). "The role of compatibility in technology adoption among automobile mechanics in micro and small enterprises in Kenya." International Journal of Academic Research in Business and Social Sciences **6**(5): 503-511.

Mazzucchelli, A., R. Chierici, et al. (2021). "Is Facebook an effective tool to access foreign markets? Evidence from international export performance of fashion firms." Journal of Management and Governance **25**(4): 1107-1144.

McClure, C. and Y.-K. Seock (2020). "The role of involvement: Investigating the effect of brand's social media pages on consumer purchase intention." Journal of retailing and consumer services **53**: 101975.

Meyer, J. (2007). "Older workers and the adoption of new technologies." ZEW-Centre for European Economic Research Discussion Paper(07-050).

Rahi, S. (2017). "Research design and methods: A systematic review of research paradigms, sampling issues and instruments development." International Journal of Economics & Management Sciences **6**(2): 1-5.

Sawyer, R. and G.-M. Chen (2012). "The impact of social media on intercultural adaptation."

Selase, A. M., A. E. Selase, et al. (2019). "Impact of technology adoption and its utilization on SMEs in Ghana." International Journal of Small and Medium Enterprises **2**(2): 1-13.

Shaikh, A. A., R. Glavee-Geo, et al. (2018). Social network brand visibility (SNBV): Conceptualization and empirical evidence. Emerging issues in global marketing, Springer: 149-178.

Van Wyk, B. (2012). "Research design and methods Part I." University of Western Cape.

Vollenbroek, W., S. De Vries, et al. (2014). "Identification of influence in social media communities." International Journal of Web Based Communities **4** **10**(3): 280-297.

Yee, R. W., A. C. Yeung, et al. (2010). "An empirical study of employee loyalty, service quality and firm performance in the service industry." International Journal of Production Economics **124**(1): 109-120.

Zhang, H., X. Liang, et al. (2016). "Customer value anticipation, product innovativeness, and customer lifetime value: The moderating role of advertising strategy." Journal of Business Research **69**(9): 3725-3730.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Economic Growth, Energy Consumption and Environment Relationship: A Panel Data Analysis of South Asian Countries**

Syed Jaffar Abbas

University of Education, Lahore

Muhammad Munawar Hussain

University of Education, Lahore

Muhammad Salman

University of Education, Lahore

Sara Shahid

University of Education, Lahore

**ABSTRACT**

This study explores the linkage between economic growth, renewable energy consumption and environment in South-Asian countries by applying fixed effect model. Panel data of 8 South-Asian countries for the period from 2006 to 2020 is collected to investigate the impact of gross domestic product (GDP), renewable energy consumption, foreign direct investment (FDI) and population on CO<sub>2</sub> emissions. The estimated results indicate that increase in GDP per capita of South Asian countries is increasing CO<sub>2</sub> emissions in the region. However we found a non-linear relationship between GDP per capita and CO<sub>2</sub> emissions which indicates the existence of inverted U-shaped relationship between these variables. Renewable energy consumption is playing its role in reducing CO<sub>2</sub> emissions in South Asia. Population and FDI are also responsible for polluting the environment by increasing CO<sub>2</sub> emissions. It is recommended to policy makers of South-Asian countries to better invest in the renewable energy sources that tend to mitigate the impact of CO<sub>2</sub> emissions on environment.

**Key words:** CO<sub>2</sub> emissions, Environmental Kuznets Curve, Renewable Energy Consumption

**Introduction**

The Organization for Economic Cooperation and Development (OECD), defines environment as, “the environment is the totality of all the external conditions affecting the life, development and survival of organisms” (OECD, 2005). In order to preserve the intimacy of this shared resource, various agreements have been ratified. First, in the queue is the Montreal Protocol (1987) which required the countries to stop producing substances like chlorofluorocarbon (CFCs) that damage ozone layer. This resulted in 99% elimination of these substances. Then in 1992, UN Framework Convention on Climate Change (UNFCCC) established an annual forum Conference of the Parties (COP). This platform proved to be the gateway for Kyoto Protocol (2005) and Paris Agreement (2015). The difference between the Kyoto Protocol and Paris Agreement is that former required developed countries to mitigate emissions by 5% below 1990 levels while the later demands all countries to prevent global average temperatures from rising to 2 degrees Celsius (Maizland, 2022).

South Asia is the region that account for 24.8% share of the total world’s population.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

According to the world bank data India is on top in terms of both population and gross domestic product (GDP) and Bhutan being the last (World Bank Group). Economies of Nepal and Maldives depend largely on tourism and service sector.

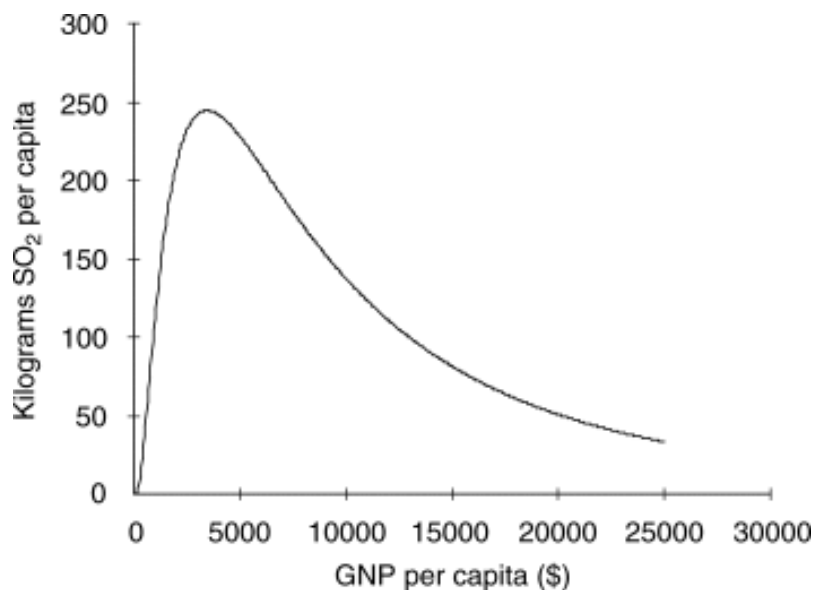
**Table 1: Comparison of Population and GDP of South Asian countries**

Country	Population	GDP
	(Thousands)	(Millions)
India	1,393,409.03	3,173,397.59
Bangladesh	166,303.49	416,264.94
Pakistan	225,199.93	346,343.17
Sri Lanka	22,156.00	84,518.83
Nepal	29,674.92	36,288.83
Afghanistan	39,835.43	20,116.14
Maldives	543.62	4,889.67
Bhutan	779.9	2,315.44

**Source: Author's creation by using data from World Bank Indicators (WDI) World Bank**

According to World Bank, South Asia shares 8% of world's carbon emissions. India is ranked 7<sup>th</sup> among the world's most affected countries by the global climate risk index 2021. Pakistan and Nepal are placed among the top ten by the long term climate risk index 2000-2019, when annual averages are assessed (Resilience). While narrating the words of an energy expert Nate Lewis, Friedman writes, "In the year 2000, the world's total average rate of energy usage was roughly 13 trillion watts that is expected to double by 2050 to 26 trillion. In order to avoid doubling of CO<sub>2</sub>, countries like India, China and other developing countries have to cut emissions by 80% to only 2.6 trillion watts" (Friedman, 2008). The Environmental Kuznets Curve (EKC) hypothesis exhibits inverted u shaped relation between emissions and the economic growth which shows that when economic growth reaches a certain level it tends to decrease the emissions (Stern, 1998).

Figure 1: Environmental Kuznets Curve for Sulphur Emissions



Source: (Stern, 1998)

Various studies have been conducted using the EKC phenomenon. We will be looking at validation of EKC in South Asian context including control variables like foreign direct investment, population etc.

### Literature Review

In this section, we are going to present the review of literature showing how economic growth and renewable energy consumption are related to environment through their impact on CO<sub>2</sub> emissions.

Pao *et al.*, (2010) found multivariate granger causality between CO<sub>2</sub> emission, energy consumption, FDI and GDP. By reviewing, this study showed that in long run equilibrium, CO<sub>2</sub> emissions acts to be energy consumption elastic and FDI is inelastic. These results support the Environmental Kuznets Curve (EKC). This study used panel data of BRICs from 1980 to 2007. This study applied panel cointegration. The result showed that there's existed sturdy bidirectional causality between output energy consumption and output emission. There is strong causality exist from energy consumption to emission.

Hatzigeorgiou (2011) elucidates the relation between GDP, energy intensity and CO<sub>2</sub> emissions in Greece from 1977 to 2007. He used Johansen cointegration tests and Granger causality tests based on a multivariate Vector Error Correction Modeling. Results depicted uni-directional and bi-directional causalities among the selected time series. For Greece, findings of the study have significant policy implications as the decoupling of CO<sub>2</sub> emissions and economic growth seems quite unlikely.

Wang (2012) expound the nonlinear relationship between CO<sub>2</sub> emission from oil and economic growth. This study showed threshold effect between the two variables: different levels of





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

economic growth bear different impact on oil CO<sub>2</sub> emission. His study used panel data 1971 to 2007 of 98 countries. The results disclosed that in the low economic growth regime, economic growth negatively affected oil CO<sub>2</sub> emission growth. In medium economic growth regime the economic growth is positively related with oil CO<sub>2</sub> emissions and in high economic growth regime, the impact of economic growth is insignificant.

Ozcan (2013) investigated the relationship between carbon emission, energy consumption and economic growth in MENA by using panel data of 12 Middle East countries over the period 1990 to 2008. This study tested EKC hypothesis and the result showed this evidence auspicious to the U- shaped curve for 5 Middle East countries, although inverted U-shaped curve (evidence of EKC) was recognized only for 3 Middle East countries, additionally there appear to be no causal links between income and CO<sub>2</sub> emissions for the other 4 countries.

Al-Mulali (2014) investigates the turbulence caused by nuclear energy consumption on GDP growth and CO<sub>2</sub> emission for the period 1990 to 2010. The countries selected for the study are 30 major nuclear energy consuming countries. Findings of the study revealed that nuclear energy consumption has a positive long run effect on GDP growth while it has no long run effect on CO<sub>2</sub> emissions. The Granger causality test results reveal short run impact of nuclear energy consumption being positive on GDP growth and on CO<sub>2</sub> emissions. Based on the results of this study, nuclear energy consumption has an important role in increasing GDP growth in the investigated countries with no effect on CO<sub>2</sub> emission. On the other hand, short run effect of fossil fuel energy consumption on GDP growth and CO<sub>2</sub> emissions is positive.

Moutinho and Robaina (2016) studied long-run and short-run impact of the share of renewable energy sources used in electricity generation and real income on CO<sub>2</sub> emissions resulting from electricity generation. The study was carried out for 20 OECD European countries for the period 1991 to 2010. The results validate Environmental Kuznets Curve (EKC), and further suggested renewable energy can be a potential determining driver of the difference in the emissions-income relations across European countries and a significant way of reducing CO<sub>2</sub>.

Cherni and Jouini (2017) showed the relation between CO<sub>2</sub> emissions, renewable energy consumption and economic growth in Tunisia. They study used an ARDL model to estimate their results. Granger causality test was used to check short-run and long-run causality among the variables for the Tunisian economy. The outcomes revealed that GDP (Gross domestic product), CO<sub>2</sub> emissions and renewable energy consumption are stable in the long run. Granger causality tests demonstrate bidirectional causality among GDP and CO<sub>2</sub> emissions as well as among renewable energy consumption and GDP. There was no relation between CO<sub>2</sub> emissions and renewable energy consumption.

Chaabouni and Saidi (2017) explored the causal connection between carbon dioxide (CO<sub>2</sub>) emissions, health spending, gross domestic product growth in case of 51 economies. They divided the countries into three groups, low income, lower & upper middle income and middle income group. The time period selected by the study was from 1995 to 2013. Dynamic simultaneous-equations models and generalized method of moments (GMM) were utilized to examine this relationship. The primary outcomes gave proof of a causal relationship between the CO<sub>2</sub> emissions, health spending and GDP growth. Bidirectional causality between CO<sub>2</sub> emissions and GDP, between health spending and GDP growth was found in all groups of



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 countries.

Mekayilov *et al.*, (2018) studied the relationship between CO<sub>2</sub> emissions and economic growth. It is among the most studied themes of environmental economics. Relative decoupling occurs when emissions grow less rapidly than GDP and absolute decoupling occurs when emissions even decrease relative to the pace of economic growth. For a longer period from 1861 to 2015, the main finding is that the income elasticity of CO<sub>2</sub> emissions is positive in all countries in their study. Income elasticity for the 4 cases is greater than unity. It is a call for policymakers to devise strategies to mitigate emissions level keeping economic development intact.

Kang *et al.*, (2019) used a three variable VAR model using a time varying parametric approach. They investigated the linkage among GDP growth, consumption of energy by renewable sources, consumption of energy by non-renewable sources and CO<sub>2</sub> emissions for the time period 1965 to 2015. They found out that the response of GDP to CO<sub>2</sub> emissions varies with what type of energy was used in different time periods.

Ardakani and Seyedaliakbar (2019) investigated the relationship of energy consumption, economic growth and carbon dioxide emissions in the perspective of the Environmental Kuznets Curve (EKC). This research focused on panel data from seven oil rich countries in the Middle East and North Africa region over the period 1995 to 2014. They applied a quadratic model formulation and multivariate regression for carbon dioxide. The results indicated that GDP has significant role to help the environmental quality.

Saidi and Omri (2020) examined the short-run and long-run impacts of renewable and nuclear energy consumption on CO<sub>2</sub> emissions. To serve the purpose, 15 OECD countries were chosen over the period 1990-2018. Fully Modified OLS (FMOLS) and the vector error correction model (VECM) approaches were used for estimation purpose. The results of the FMOLS showed that for majority of the countries, investments in nuclear energy and renewable energy reduces CO<sub>2</sub> emissions, while in South Korea and Netherlands it increases CO<sub>2</sub> emissions. Further, results of VECM method reveal that nuclear and renewable energies reduce CO<sub>2</sub> emissions in the long-term. The study recommended that the best option to reduce CO<sub>2</sub> emissions is to aim for a mix of nuclear and renewable energy.

Njoh (2021) analyzed secondary data and used general linear model (GLM). The hypothesis of renewable energy consumption as a determinant of inter-country differentials in carbon dioxide (CO<sub>2</sub>) emissions in Africa was tested. CO<sub>2</sub> emissions as dependent variable and renewable energy consumption along with four control variables, level of urbanization, Gross Domestic Product (GDP) per capita, Gross National Product (GNP) per capita and one binary variable, namely nationality of former colonial power, were included. Energy consumption was found to be inversely related to CO<sub>2</sub> emissions.

Kim *et al.*, (2020) investigated the relation among total biomass energy consumption, total energy CO<sub>2</sub> emissions, and gross domestic product in the US for the period 1973 to 2016. They used a directed acyclic graph (DAG) methods and the auto regressive distributed lag (ARDL) model. Moreover, their paper investigated the presence of the Environmental Kuznets curve (EKC). The results of study indicated that biomass energy consumption reduced energy CO<sub>2</sub> emissions in US. They recommended extended use of biomass energy consumption for reducing CO<sub>2</sub> emissions.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Mendonca *et al.*, (2020) indicated that the economic and population growth caused increase in CO<sub>2</sub> emissions in 50 largest world economies. They applied Hierarchical regression modeling for the time period 1990-2015. They verified the impact of generation of renewable energies, GDP and population growth on CO<sub>2</sub> emissions. Their study found that GDP and population growth degraded the environment by increasing CO<sub>2</sub> emissions. On the other hand, generation of renewable energies is a way to decrease CO<sub>2</sub> emissions. Zubair *et al.*, (2020) investigated long-term relationship between the carbon CO<sub>2</sub> emissions, income, trade integration, FDI inflows, GDP, and capital. The estimations were carried out using autoregressive distributed lag (ARDL) model over the period 1980-2018. In Nigeria, an increase in FDI inflows, GDP, and capital reduced carbon dioxide emissions. The Granger causality shows two-way causality between CO<sub>2</sub> emissions and FDI inflows, and one way causality from capital to CO<sub>2</sub> emissions. The study recommended that the Government of Nigeria should continue to improve on providing incentives for economic agents, both local and foreign, under climate-friendly initiatives.

Pejovic *et al.*, (2021) studied the relationship between economic growth, energy consumption and CO<sub>2</sub> emissions. For the study, 27 countries of the European Union and the Western Balkans were taken for the period 2008-2018. The panel vector autoregressive approach (PVAR) and generalized method of moments (GMM) were used for the estimations. The estimated results indicate that most of the variations in CO<sub>2</sub> emissions are determined by variations in GDP, so reducing CO<sub>2</sub> emissions in the long run can be achieved by continuously increasing GDP. Increasing consumption from renewable sources will lead to a direct drop in CO<sub>2</sub> emissions which will have desirable environmental effects. Findings obtained in this research can be important for decision makers in managing energy policy, environmental policy and economic growth and development.

Shahnazi and Shabani (2021) investigated the spatial dependence of CO<sub>2</sub> emissions in European Union (EU) countries. They used spatial unique board information model for the time period 2000 to 2017. The results reflected that the CO<sub>2</sub> emissions of one country were connected with those of its neighbors. They also found a U-shaped relationship between economic freedom and CO<sub>2</sub> emissions. Aslam *et al.*, (2021) investigated the relationship among CO<sub>2</sub> emissions, industrialization, economic growth, trade openness and population density in China. They used an auto regressive distributed lag (ARDL) model for the time period from 1962 to 2018. The study concluded with the presence of Environmental Kuznets Curve (EKC).

After reviewing significant amount of literature on the subject matter, we observed that CO<sub>2</sub> emissions increase with a rise in gross domestic product (GDP) and population. However we observed in many studies that after achieving a certain level of gross domestic product (GDP), countries increase investment in renewable energy sources and try to reduce CO<sub>2</sub> emissions. This effort of policy makers is reflected in literature by validating the presence of Environmental Kuznets Curve (EKC) hypothesis in various studies.

### **Theoretical Framework**

At an initial stage of any study, it is the core responsibility of the author(s) to develop the theoretical framework which serves the purpose of linking the variables used by the study. We investigated the presence of Environmental Kuznets Curve (EKC) in South Asia. For this



Proceedings

ISSN 2617-8028

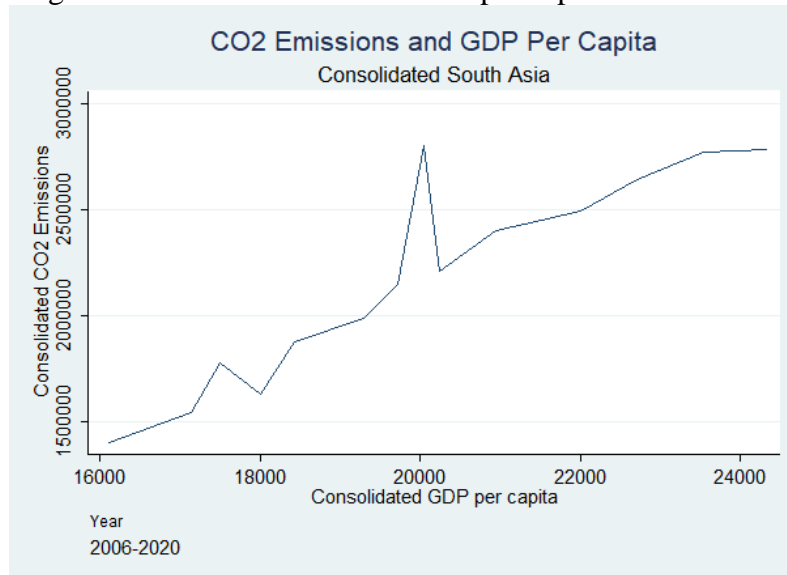
7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

purpose we tried to find out the linkage between gross domestic product (GDP), renewable energy consumption (REC) and CO2 emissions.

### CO2 Emissions and Gross Domestic Product (GDP)

The link between economic growth and CO2 emissions is not new to the world. It is a well know fact, that nothing comes free in this modern world. If a country is willing to achieve enormous economic progress, one of the most likely costs is environmental degradation through CO2 emissions. Same is the case in this study. It is so, because most of the time when developing economies tries to achieve economic growth, it happens at the cost of degrading the environment.

Figure 2: CO2 Emissions and GDP per capita in South Asia



Source: Authors creation by consolidating WDI data of 8 South Asian countries

### Renewable Energy Consumption and Economic Growth

It is a predominant fact a country economies growing well are using energy resources to maintain their production volume. Without consumption of energy it is not possibly for a economy to enhance its economic conditions. With the induction of renewable energy, way to the economic growth has become relatively unproblematic because the use of renewable energy has helped the world in reducing CO2 emissions.

### CO2 Emissions and Renewable Energy Consumption

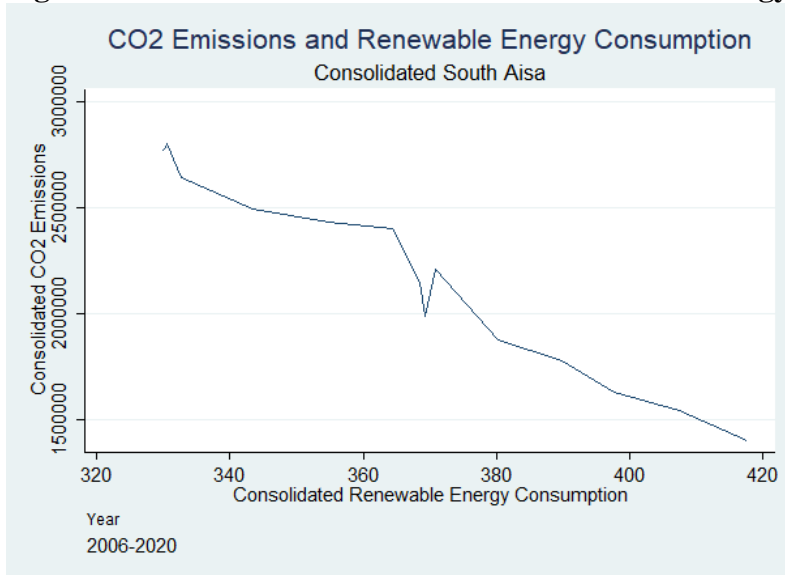
Energy consumption has been a major source of increasing CO2 emissions in an economy.

However, use of renewable energy has a different impact. By using the renewable energy we can reduce the CO2 emissions and enhance our environment. The most popular sources of renewable



energy are solar energy, wind energy, hydro energy, tidal energy, geothermal energy and biomass energy. These are the forms of energy which can help a economy’s policy makers to reduce CO2 emissions in the country. As expected, renewable energy consumption has a negative relation with CO2 emissions in South Asia.

**Figure 3: CO2 Emissions and Renewable Energy Consumption in South Asia**



Source: Authors creation by consolidating WDI data of 8 South Asian countries

**DATA SOURCES AND METHODOLOGY**

**Data Sources**

We analyzed the impact of economic growth and renewable energy consumption on CO2 emissions in 8 South-Asian countries. This study analyzed panel data for South-Asian countries (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) for time period from 2006 to 2020. The data on variables (CO2 emissions, GDP per capita, Foreign direct investment, Renewable energy consumption and Population density) used in this study was taken from World Development Indicators (WDI) World Bank.

**Methodology**

In the model being estimated, CO2 emissions in South-Asia depend on economic growth, renewable energy consumption, foreign direct investment and population. This empirical model is based on the theoretical linkage between the CO2 emissions and regressors.

$$\ln EM_{it} = \beta_1 + \beta_2 \ln GDP_{it} + \beta_3 \ln GDP_{it}^2 + \beta_4 \ln FDI_{it} + \beta_5 \ln REC_{it} + \beta_6 POP_{it} + \varepsilon_{it}$$

This model serves the purpose of estimating the impact of gross domestic product (GDP) and renewable energy consumption (REC) on CO2 emissions in South-Asian countries.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 2: Definition of Variables**

Variable	Description	Measurement	Source
EM	CO2 emissions	CO2 emissions (kt)	WDI
GDP	GDP per capita	constant 2015 US\$	WDI
FDI	Foreign direct investment	net inflows (% of GDP)	WDI
REC	Renewable energy consumption	% of total final energy consumption	WDI
POP	Population density	people per sq. km of land area	WDI

Source: Compiled by author

### Method of Estimation

#### Hausman Specification Test

After data collection the next main objective of a researcher is to adopt a correct method of estimation so that research question could be answered properly. This study applied Hausman specification test to select the appropriate panel data estimation method. The empirical values of Hausman test suggested the authors to apply fixed effect model of panel data estimation.

#### Fixed Effects Model

The fixed effects model means the model parameters are fixed and they are not random quantities. It is different from random effects model where some or all parameters are random variables. A fixed effects model means a regression model having fixed group means. We know that the data can be grouped according to several observed factors and group means could be modeled as random or fixed effects for each grouping. In our selected model (fixed effect model) the mean of each group is a fixed quantity which is group specific.

### Results And Their Interpretation

Let us start with having a look at the descriptive statistics regarding the variables which are being used in this study. The mean values, standard deviation and minimum / maximum values of the variables used in the study are mentioned in table 3.

**Table 3: Descriptive Statistics of South-Asian Countries**

Variable	Mean	Std. Dev.	Min	Max
lnEM	9.752	2.514	5.704	14.716
lnGDP	7.43	.855	5.869	9.23
lnGDP2	55.934	13.12	34.439	85.19
lnFDI	.086	1.25	-4.837	2.841
lnREC	3.384	1.282	.095	4.526
POP	482.29	499.208	17.247	1801.807

After having a look at the descriptive statistics, this study is going to apply Hausman specification test to select the appropriate panel data estimation technique. This test checks for the statistical significance of the difference between the coefficient estimates obtained by fixed effect method and by random effect method. The null hypothesis states that random effect estimates/results are



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

efficient & consistent and fixed effect estimates are not efficient. Hausman test has a Wald test form. It is usually reported in  $\chi^2$  form with  $k-1$  degrees of freedom. Here  $k$  is the number of regressors in the model.

Table 4: Hausman (1978) Specification Test

	Coef.
Chi-square test value	17.043
P-value	0.004

Since the P-value of the Hausman test is less than 5%, we cannot accept the null hypothesis of using random effect model and accept the alternative hypothesis of using fixed effect model.

**Table 5: Determination of CO2 Emissions by Fixed Effect Method**

lnEM	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
lnGDP	4.775	1.206	3.96	0.000	2.384	7.165	***
lnGDP2	-.237	.079	-3.01	0.003	-.393	-.081	***
lnFDI	.021	.022	0.95	0.342	-.023	.066	
lnREC	-.588	.207	-2.85	0.005	-.997	-.178	***
POP	.001	0	4.27	0.000	0	.001	***
Constant	-10.862	5.067	-2.14	0.034	-20.911	-.814	**
R-squared	0.799						
F-test	82.843		Prob > F		0.000		

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

It observed from Table 5 that GDP per capita has a positive and significant impact on the CO2 emissions. It means that with increase in economic growth of South-Asian countries their CO2 emissions are increasing and environment is getting worse off. Another important finding from the empirical estimates is that the square of GDP per capita is having a negative coefficient with CO2 emissions. This indicates that as square of GDP per capita will rise the CO2 emissions will fall. It proves the presence of environmental Kuznets Curve in South-Asian countries. Foreign direct investment is increasing the CO2 emissions however its coefficient is insignificant. Renewable energy consumption has a negative relation with CO2 emissions. This finding supports the theory that with use of renewable energy, we can significantly mitigate the CO2 emissions. Consumption of renewable energy has played its role in decreasing CO2 emissions and enhancing the environment in the South-Asian countries. Population is found to be degrading the environment by increasing the CO2 emissions in South-Asian countries. This significant finding also matches with the theory that with larger population there will be greater emissions. Value of R-square is showing that the independent variables used in this study explain 79% variations in CO2 emissions in South-Asian countries. From the F-test statistic result, it is indicated that the overall significance of the fitted model is good.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Conclusion And Recommendations**

This study unveils the important role of gross domestic product (GDP) and renewable energy consumption (REC) on CO<sub>2</sub> emissions. This study empirically examined the impact of renewable energy consumption, GDP per capita, foreign direct investment and population density on CO<sub>2</sub> emissions in 8 South Asian countries (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) by covering the period from 2006 to 2020. The relationship among above mentioned variables was investigated by using fixed effect method of panel data estimation. The results highlight that the GDP per capita have positive and significant relationship with CO<sub>2</sub> emission in South Asian region. Whenever GDP per capita rises, it also increases CO<sub>2</sub> emissions (Mandonca *et al.*, 2020). However, at a later stage of economic growth this relationship between GDP per capita and CO<sub>2</sub> emissions become negative indicated by the negative significant coefficient of square of GDP per capita used in our model. This finding indicates the existence of Environmental Kuznets Curve (EKC) hypothesis in South Asia. It means with increased income, policy makers invest in renewable energy resources and environment friendly policies which help in reducing CO<sub>2</sub> emissions. The estimated results provide enough evidence to validate Environmental Kuznet Curve (EKC) hypothesis in South Asian countries (Salari *et al.*, 2020). A key solution to reducing environmental degradation is use of renewable energy. This study also found that renewable energy consumption has a negative relation with CO<sub>2</sub> emissions in South Asia. When use of renewable energy is increased then there is reduction in emissions of carbon dioxide (Karaslan *et. all*, 2022). Population growth is also a driving cause to increase the CO<sub>2</sub> emissions worldwide. Population density has a positive impact on environment degradation through increasing CO<sub>2</sub> emissions. This study also found a positive and significant impact of population on CO<sub>2</sub> emissions (Yang *et al.*, 2021). Foreign direct investment has been found to be increasing CO<sub>2</sub> emissions in many earlier studies (Shahbaz *et al.*, 2019). This study also found a positive but statistically insignificant relation between foreign direct investment and CO<sub>2</sub> emissions in 8 South Asian countries. We recommend the policy makers of South Asian economies to invest in renewable energy resources in order to protect their environment from destructive effects of CO<sub>2</sub> emissions.

### **References**

- Al-Mulali, U. (2014). Investigating the impact of nuclear energy consumption on GDP growth and CO<sub>2</sub> emission: A panel data analysis. *Progress in Nuclear Energy*, 73, 172-178.
- Ardakani, M. K., & Seyedaliakbar, S. M. (2019). Impact of energy consumption and economic growth on CO<sub>2</sub> emission using multivariate regression. *Energy Strategy Reviews*, 26, 100428.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Aslam, B., Hu, J., Shahab, S., Ahmad, A., Saleem, M., Shah, S. S. A., ... & Hassan, M. (2021).

The nexus of industrialization, GDP per capita and CO2 emission in China. *Environmental Technology & Innovation*, 23, 101674.

Chaabouni, S., & Saidi, K. (2017). The dynamic links between carbon dioxide (CO2) emissions, health spending and GDP growth: A case study for 51 countries. *Environmental research*, 158, 137-144.

Cherni, A., & Jouini, S. E. (2017). An ARDL approach to the CO2 emissions, renewable energy and economic growth nexus: Tunisian evidence. *International Journal of Hydrogen Energy*, 42(48), 29056-29066.

de Souza Mendonça, A. K., Barni, G. D. A. C., Moro, M. F., Bornia, A. C., Kupek, E., & Fernandes, L. (2020). Hierarchical modeling of the 50 largest economies to verify the impact of GDP, population and renewable energy generation in CO2 emissions. *Sustainable Production and Consumption*, 22, 58-67.

Friedman, T. L. (2008). *Hot, Flat and Crowded*. New York: FSG .

Group, W. B. (n.d.). *World Bank-Data*. Retrieved from [www.data.worldbank.org](http://www.data.worldbank.org): <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=8S>

Hatzigeorgiou, E., Polatidis, H., & Haralambopoulos, D. (2011). CO2 emissions, GDP and energy intensity: a multivariate cointegration and causality analysis for Greece, 1977–2007. *Applied Energy*, 88(4), 1377-1385.

Hosseini, S. M., Saifoddin, A., Shirmohammadi, R., & Aslani, A. (2019). Forecasting of CO2 emissions in Iran based on time series and regression analysis. *Energy Reports*, 5, 619-631.

Kang, S. H., Islam, F., & Tiwari, A. K. (2019). The dynamic relationships among CO2 emissions, renewable and non-renewable energy sources, and economic growth in India: Evidence from time-varying Bayesian VAR model. *Structural Change and Economic Dynamics*, 50, 90-101.

Kim, G., Choi, S. K., & Seok, J. H. (2020). Does biomass energy consumption reduce total energy CO2 emissions in the US?. *Journal of Policy Modeling*, 42(5), 953-967.

Maizland, L. (2022, November 4). *Global Climate Change Agreements: Successes and Failures*. Retrieved from Council on Foreign Relations: <https://www.cfr.org/background/paris-global-climate-change-agreements>

Mikayilov, J. I., Hasanov, F. J., & Galeotti, M. (2018). Decoupling of CO2 emissions and GDP: A time-varying cointegration approach. *Ecological indicators*, 95, 615-628.

Moutinho, V., & Robaina, M. (2016). Is the share of renewable energy sources determining the CO2 kWh and income relation in electricity generation?. *Renewable and Sustainable Energy Reviews*, 65, 902-914.

Njoh, A. J. (2021). Renewable energy as a determinant of inter-country differentials in CO2 emissions in Africa. *Renewable Energy*, 172, 1225-1232.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

OECD, T. O. (2005). *Glosaary of Statistical Terms*. Retrieved from [www.stats.oecd.org](http://www.stats.oecd.org):  
<https://stats.oecd.org/glossary/detail.asp?ID=813>

Ozcan, B. (2013). The nexus between carbon emissions, energy consumption and economic growth in Middle East countries: a panel data analysis. *Energy Policy*, 62, 1138-1147.

Pao, H. T., & Tsai, C. M. (2011). Multivariate Granger causality between CO2 emissions, energy consumption, FDI (foreign direct investment) and GDP (gross domestic product): evidence from a panel of BRIC (Brazil, Russian Federation, India, and China) countries. *Energy*, 36(1), 685-693.

Pejović, B., Karadžić, V., Dragašević, Z., & Backović, T. (2021). Economic growth, energy consumption and CO2 emissions in the countries of the European Union and the Western Balkans. *Energy Reports*, 7, 2775-2783.

Resilience, S. A. (n.d.). *How are you South Asia?* Retrieved from [adpc](http://adpc.net):  
<https://www.adpc.net/cap-southasia/index.php/south-asia/>

Saidi, K., & Omri, A. (2020). Reducing CO2 emissions in OECD countries: Do renewable and nuclear energy matter?. *Progress in Nuclear Energy*, 126, 103425.

Shahbaz, M., Gozgor, G., Adom, P. K., & Hammoudeh, S. (2019). The technical decomposition of carbon emissions and the concerns about FDI and trade openness effects in the United States. *International Economics*, 159, 56-73.

Shahnazi, R., & Shabani, Z. D. (2021). The effects of renewable energy, spatial spillover of CO2 emissions and economic freedom on CO2 emissions in the EU. *Renewable Energy*, 169, 293-307.

Stern, D. I. (1998). Progress on the environmental Kuznets curve?. *Environment and development economics*, 3(2), 173-196.

Wang, K. M. (2012). Modelling the nonlinear relationship between CO2 emissions from oil and economic growth. *Economic Modelling*, 29(5), 1537-1547.

Zubair, A. O., Samad, A. R. A., & Dankumo, A. M. (2020). Does gross domestic income, trade integration, FDI inflows, GDP, and capital reduces CO2 emissions? An empirical evidence from Nigeria. *Current Research in Environmental*





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Implementation Challenges of Harassment Law and its consequences for both Genders at workplace**

Binish Mughal

University of the Punjab, Lahore.

Aatqa Abdul Razzaq

University of the Punjab, Lahore.

**Abstract**

The aim of this research is to study implementation challenges of Harassment Law and its consequences for both genders at workplace. Addressing harassment complaints and issues are given prime importance at workplace in Pakistan especially after promulgation of “The Protection against Harassment of Women at the Workplace Act, 2010” but the title of the law has made it gender specific creating imbalance at work place. This study is qualitative in nature and has employed focus group discussion to identify the underlying themes. There are nine participants in the study having diverse academic and professional background representing both genders. A moderator has initiated the discussion with sixteen questions developed through in depth analysis of the literature related to the topic. All the discussion was recorded and analyzed by using Nvivo. Multiple themes are identified after the analysis which depicts that the law is being perceived to cater issues faced by one gender resulting in misuse of the law rather than ensuring safe work place environment for everyone. Further, the inquiry committees are not well versed with the procedure of conducting Inquiry or handling such nature of sensitive issues. The findings of this study are helpful for legislators to remove lacunas in the law. Moreover, it is helpful for policy makers and management to take proactive action to tackle implementation challenges and give safe environment to each and every employee irrespective of gender.

**Extended Abstract**

There are nine participants in this focus group, one moderator and one person recording all conversation and taking notes during the discussion. Following are the details/transcription of the discussion and then identification of various themes after transcribing all information through the software.

**Participants**

Participant No.1: Mr.Umer Farooque

Participant No.2: Mr.Zahid Ahmed

Participant No.3: Mr Gulraiz

Participant No.4 : Mr.Sohail Ahmed

Participant No.5: Mr. Salman

Participant No.6: Mr. Rehan Ahmed

Participant No.7: Mr. Bilal

Participant No.8: Mrs. Fouzia Ali



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Participant No.9: Miss Aban Abid Qazi

### **Transcription of Focus Group Discussion**

#### **Moderator: Do you have any information/knowledge about Protection against Harassment of Women at Workplace Act 2010?**

Answers

Participant No. 1: This law is existent in organizations since long and people are well aware about it. In my organization there is one or two incidents happened and the seniors sorted out the matter with mutual consultation. One or two of my colleagues had been transferred to other stations even far away from their home town. One of them was punished due to sending messages to her fellow female colleague. The accused argued that all the messages he sent were in the reply to the messages first sent by that lady. He was found right when the company collected the message trail from the service provider.

Participant No.2: In many departments this act is being misused. Genuine complaints never reached us may be because of our area is backward and remote. In health department there exists a mafia who use females for their personal benefits. Misuse of this act is more in backward areas. If someone has to blackmail a government officer they use specific females in different departments. If a genuine case has been reported then the members of enquiry committee constituted for the purpose abuse the female complainant and male accused instead of conducting enquiry on genuine grounds. Enquiry committees constituted for the purpose are composed of mostly male members that misuse their power. Genuine cases are not reported may be because of internal management or family pressure.

Participant No.5: A newly recruited female District Education Officer complained against a male section officer that he regularly message her without her consent. That section officer then got major penalty of removal from service after complete enquiry proceedings in which he found guilty. He further said in some cases enquiry members show biasness toward one member and favor other member. In support of this statement he quoted another example of his department where a female DEO was in contact with two male fellows. The one male complained against the other member and enquiry committee has conducted the enquiry proceedings from one angle and awarded minor penalty to him. He said that it depends on the head of enquiry committee that to whose point of view he gave important whether to the complainant or accused.

#### **Moderator: How do you perceive this law? Gender specific/gender neutral?**

Answers

Participant No.8: She said that title is not appropriate with the content as title of the law is gender specific and the content is neutral.

Participant No. 1: It's a gender specific law. He said that it has been perceived that there are only males who are harassing females but there are adverse cases too. He explained that there is some consideration involved.....offer and acceptance.....If there is an issue arises in that consideration against which offer and acceptance took place then that contract becomes null and void and a complaint is lodged by the female member.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Moderator: How your organizations are responding to implementation of this law?**

Answers

Participant No.3: Some organizations have increased awareness about this law by displaying pictures and charts in the office premises. He said there should be some awareness campaigns, seminars and conferences about the pros and cons of this law. In that case this law would be fruitful otherwise there will be no benefit.

Participant No.2: He said that most of the organizations do not have any implementations of this law. When asked by the government about the steps they have taken about the safety and protection measures of female workers, then they produce fake reports to the government stating they have a committee etc. but practically nothing has been done. Banners and posters are displayed only when a government officer's visit is expected and after that visit all the stuff has been removed.

**Moderator: Do you think females are feeling safer after implementation of this law?**

Answers

Participant No.9: She said yes. After this law came into force, I feel safe as I may work in any public environment now. But she said there is a problem that women are not aware about this law. They don't know which forum they have to access in need.

Participant No.8: At the age of 40 when I went to the editor of research papers for one of my research publication I had been harassed by that man. I couldn't report that because I have no proof as there was no recording and no one was present there. In the given situation law doesn't help as it demands the evidence.

**Moderator: Do you think this law is helpful for you as well? If yes how? If No why?**

Answers

Participant No. 1: Yess, males are afraid of this law. They know that a law exists that females can use if they try to harass them.

No, Females are misusing this law. They threaten males with respect to this law and ask them to do what they want them to do.

Participant No.6: He said that females are misusing this law and quoted one example. A lady came to an officer and asked him to do some of her work. After his denial she said, "Do you know what I can do?" That officer stands up from his seat and opened the door of his room and asked her to do whatever she wants to do now.

Participant No.4 : He quoted an example with reference to misuse of this law. A girl came to a clerk of an educational institute before start of admission and asked him for his number for future correspondence. Before the display of final merit list she texted him many times for information. As She was not selected for admission, she came to that clerk and asked her to do something to secure her admission otherwise I'll put a case against you. He further added that in our society it seems that only females are being harassed but this is not the case, males are too harassed.

Participant No.3: Some organizations has increased awareness about this law by displaying pictures and charts in the office premises.

**Moderator: Discussion/ opinion on definition and different terms and clauses of this law? / Do you agree that the terms used in this law best describe it?**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Participant No.2: Its definition has been made narrowed as this law is for sexual harassment only. Every person has his own domain and job description, when someone tries to interfere with the domain and job description of other person it should also come in harassment. In our practical life, many journalists came to us with the purpose to take commission or for some other reason. These things should also come in this act.

Participant No.1: I don't think so. Harassment is everything you use in other contexts too. For example, you can't say anything to others related to their religion being minority. You can't force a female in order to do anything as you had the power to promote her. We can't abuse others on the basis of their disability instead of helping them out.

Participant No.5: Today we received a call from minister house for the arrangement of 1 kg sugar and other items. This is also a type of undue pressure from the authority.

**Moderator: What do you think about the procedure of conducting enquiry mentioned in this law?**

Participant No.5: Whenever an enquiry committee has been constituted for the purpose, the head of enquiry committee receives a call with the directions to conduct enquiry favouring someone of both parties. He didn't consider the views of the other party and conducts enquiry one sidedly highlighting all the issues against one member and finalizes the decision accordingly.

Participant No.8: Most of all, there is an issue of evidence. It's very difficult to reproduce the evidence proving that this happened to you. That's quiet painful also for the complainant. The complainant feels reluctant in telling the story certain times in front of several people.

Participant No.5: Most of the people do not pursue their complaints due to their reputation and disrespect in front of family members, friends and colleagues.

**Moderator: As there is a procedure given in the law about the members of enquiry committee including one female member compulsorily. Do you think the purpose of including one female member in the enquiry committee is being achieved or not?**

Participant No.3: The benefit of female member in the enquiry committee is that the she may feel the feelings of female complainant better than other male members.

Participant No.1: A female complainant may communicate better with female committee member.

Participant No.2: with respect to female harassment in our district we have a district level committee. The head of the committee is Deputy Commissioner and it came to our notice that deputy commissioner has a charge of female harassment and his case under proceeding with Supreme Court. A female should be the head and deciding authority of harassment committee.

**Moderator: As you are saying that a female should be the deciding authority then don't you think we are making this phenomena gender specific again?**

Participant No.1: This law has been made gender specific and this will ultimately remain gender specific.

Participant No.2: If a committee has a single female then you should either have to make her the head of the committee or make their equal representation.

**Moderator: As the complainant have to produce the evidence in front of the committee and they have to record and analyze that evidence. Do you think the committee members in your department are capable enough to record and analyze those evidences?**





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Participant No.7: If you are making a separate committee for every case then you will not achieve an idealist situation. There should be a permanent committee for the purpose.

Participant No.8: Your committees should be empowered. If you know that you had conducted the enquiry properly but the outcome of it at the top level might be manipulated. There should be trainings that how to conduct enquiries in an objective way rather than a subjective way. It should be not an individualized definition of harassment because law is vague.

Participant No. 2: Mostly committee members are not expert and have no background of criminology. Committee members should have proper knowledge of investigation.

Participant No. 4: The deciding authority directs the committee head that you make recommendation and we'll make the decision accordingly.

**Moderator: Penalties mentioned in this Act are justified against this act of Harassment?**

Participant No. 1: What is the intensity of the harassment that will drive the major or minor penalty? This law is not defining it clearly.

Participant No. 8: What if a person silently stares me in an absurd manner? How can I report that? It happens a lot of time and you are feeling insecure sitting at that place. As you are unable to operationalize the degree of harassment then how could you operationalize the penalties?

**Moderator: Harassment defined and penalized in PPC is better than as defined in this Act?**

**Moderator: Do you think there was or is requirement of such law?**

Participant No. 1: Yes, there is a need as many of the females are becoming part of the professional life rapidly. They need some kind of protection.

Participant No 2: There is need for the actual implementation of this law.

**Moderator: Do you think that this law is being misused by organizations specifically by females? If yes then how? If No then why/how?**

Participant No.1 : Females are not coming with genuine cases most of them are manipulated.

Participant No 2: Genuine cases are not reported, mostly manipulated for some specific gains.

Participant No 1: Until there is not a strong backing, genuine cases would not be reported and that backing is positive or negative it depends.

**Moderator: Do you think if there is a male, he also needs a backend support to report such cases?**

Participant No 9: Obviously, if a male is marries he will most of all need the support of his wife.

Participant No 2: Females also harass male teachers in order to get good marks.

Participant No 8: In order to avoid this situation in our university all the rooms are cutted down and made a small window in them so that anybody can see from outside whats going on inside the room. Its very difficult to measure the intentions of others

**Moderator: Any suggestions for improvement?**

There is a need for family counseling that females never hesitate to report such type of cases because of family pressure as they may not be allowed to go outside home.

There is a need to enhance number of female members in enquiry committees that other females don't hesitate to share their point of views in front of committee members.

All the committees constituted at district level should have more representation of females.

There should be separate wash rooms, prayer rooms and waiting rooms for females in every





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
department.

Committee members belong to the same department and if one member supports one party he will get support of other members too. There should be the members from other departments as like the syndicate of Punjab University.

There should be a psychiatrist in the committee; he will better understand the things.

A explanation is required of the intensity of harassment that drive major or minor penalty

Major harassment and minor harassment definitions are need to be more operationalized

Every committee should include a member of criminology/ investigation background.

There is a need of more advertisement of the phenomena so that everybody well understand what is harassment and do not feel hesitation to talk about it.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### Themes Identification

<p>Information/knowledge about Protection against Harassment of Women at Workplace Act 2010</p> <p>P1: people are well aware about it  P3- Some organizations have increased awareness about this law by displaying pictures and charts in the office premises  P3- there should be some awareness campaigns, seminars and conferences about the pros and cons of this law  P2- Banners and posters are displayed only when a government officer's visit is expected  P9- women are not aware about this law</p>	<p>Misuse of the Law</p> <p>P2- this act is being misused  P2- mafia who use females for their personal benefits  P2- more in backward areas  P2- to blackmail a government officer they use specific females  P2- male members of enquiry committee misuse their power  P1- Females are misusing this law by threatening males and asking them for undue favor  P6- Females pressurize males with respect to this law and ask them for a favor  P2- Cases are manipulated for some personal gain  P2- Females harass male teachers to get good marks in exams</p>
<p>Why the genuine complaints are not reported?</p> <p>P2-area is backward and remote  P2- members of enquiry committee abuse the female complainant and male accused  P2- Because of internal management  P2- Because of family pressure  P8- I couldn't report that because I have no proof/ Lack of evidence  P5- due to the reputation and disrespect in front of family members, friends and colleagues  P1-Absence of strong backing  P8- The complainant feels reluctant in telling the story certain times in front of several people</p>	<p>This law is gender specific/gender neutral?</p> <p>P8- title is not appropriate with the  P1- It's a gender specific law  P1- it has been perceived that only females are being harassed by the males but there are adverse cases too</p>



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

<p>Implementation of the Law</p> <p>P2- Most organizations do not have any implementations of this law</p> <p>P2- Fake reports are produced to the government about the implementation</p> <p>P2- There should be practical implementation of the law</p> <p>P5- Enquiry committee members show biasness towards one of the parties.</p> <p>P5-Committee members have to face pressure from top management</p> <p>P8- There is an issue of evidence.</p> <p>P8- Its difficult and painful to reproduce the evidence</p>	<p>Safety of females after the implementation of this law</p> <p>P9-Yes, I feel safe as I may work in any public environment now</p> <p>P1- Males are afraid, they know that a law exists that females can use if they try to harass them</p> <p>P1- Females are feeling protected after the implementation of the law.</p>
<p>Definition of harassment?</p> <p>P2- Harassment definition has been made narrowed to sexual harassment only.</p> <p>P2- Interference with the domain and job description of other person.</p> <p>P2- Undue pressure from the journalists</p> <p>P1- Abusing others related to their religion being minority</p> <p>P1- abusing others on the basis of their disability</p> <p>P1- forcing a female to do anything as you had the power to promote her</p> <p>P5- Undue pressure from the authority towards their subordinates</p> <p>P1-This law is not defining the intensity of the harassment that will drive the major or minor penalty</p> <p>P8- We are unable to operationalize the degree of harassment</p> <p>P5- Texting a female without her consent</p> <p>P8- What if a person silently stares me in an absurd manner?</p>	<p>Benefit of including female member in Enquiry committees</p> <p>P3- she may feel the feelings of female complainant better than other male members</p> <p>P1- A female complainant may communicate better with female committee member.</p> <p>P2- A female should be the head and deciding authority of harassment committee or there should be the equal representation</p>
<p>Effectiveness of the enquiry committee</p> <p>P7-There should be a permanent enquiry committee</p>	<p>Suggestions</p> <p>Need for family counseling</p> <p>Need to enhance number of female members in</p>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

<p>P8-Your enquiry committees should be empowered</p> <p>P8-Committee members should be trained on how to conduct enquiries in an objective way rather than a subjective way</p> <p>P2- Committee members should have proper knowledge of investigation</p> <p>P5 Committee members should be unbiased</p>	<p>enquiry committees</p> <p>Separate wash rooms, prayer rooms and waiting rooms for females</p> <p>Committee members should belong to different departments</p> <p>There should be a psychiatrist in the committee</p> <p>Harassment definitions need to be more operationalized</p> <p>One member of criminology/ investigation background in enquiry committees</p> <p>More advertisement of the phenomena</p>
--	---

*Sustainability*, 2, 100009.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact of Generalized Workplace Harassment of Female Investigation Officers on their Subjective Wellbeing**

Binish Mughal

University of the Punjab, Lahore

**Abstract**

In Pakistan, after the promulgation of Protection against Harassment of Women at Workplace Act 2010, the more focus is shifted towards the phenomenon of Sexual Harassment ignoring other forms of harassment. This research would be studying Generalized Workplace Harassment which is equally volatile and destructive for the wellbeing of the victims experiencing it at workplace. As female workforce is increasing day by day in male dominating professions so are the challenges associated with their retention, performance and motivation. For this study, data would be collected from female investigation officers working in male dominated law enforcement agencies like NAB, FIA and ACE. The female investigation officers investigating white collar crimes interact with males at various forums both inside and outside organization for completing their assigned task of investigation making them more vulnerable to experience generalized workplace harassment affecting their subjective wellbeing. Proposed study is quantitative in nature in which survey questionnaire method would be used for data collection. The variables will be measured on already developed scales. Partial least square structure equation modeling will be used to substantiate research model and hypothesis of the study. The survey data will be subjected to screening process in SPSS which includes analysis of missing values, outliers, normality and common method bias then an overview of data will be presented and discussed by descriptive statistics and correlation analysis. After that study's theoretical framework will be implemented in SMART PLS and analyzed using two step procedures. Firstly measurement model will be analyzed for soundness of psychometrics properties of study's measures which include reliability, convergent validity and discriminant validity analysis. After that, structural model is analyzed for collinearity, path coefficients, coefficients of determination ( $R^2$ ), predictive relevance ( $Q^2$ ) and effect sizes.

**Introduction**

With the advancement in research, it is recognized that different kinds of harassment behaviours are experienced simultaneously at workplace (Jana L. Raver, 2010). In Pakistan, after promulgation of Protection against Harassment of Women at Workplace Act 2010 (Pakistan, 2010) the more focus is shifted towards the phenomenon of Sexual Harassment (SH) at workplace considering females being the prime victim of this phenomenon (Hassan.N, 2009; Hausen.M, 2010; Hemalatha, 2013). Due to this convergence of attention on one type of harassment, the other forms of harassment e.g; Generalized Workplace Harassment (GWH) (Jana L. Raver, 2010) which is equally volatile and destructive for the subjective wellbeing of the victims is mostly ignored. As number of females at workplace and male dominated professions are increasing globally in general and in Pakistan especially due to multiple reasons,





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

the need to cater their issues of Subjective Wellbeing (SWB) (Ed Diener, 2016) is very crucial for organizations. Researchers have discussed the relationship of harassment with dimensions of SWB i.e; job satisfaction, stress etc (Anila, 1998) but collectively looking into the impact of GWH on SWB has not been discussed in research. For this study, the female investigation officers (FIO) working in male dominated law enforcement agencies in Pakistan like National Accountability Bureau (NAB), Federal Investigative Agency (FIA) and Anti-Corruption Establishment (ACE) are taken as sample because currently investigation of white collar crimes is an emerging phenomena and inclusion of female investigation in these professions is challenging not only for females themselves but for these organizations as well. Secondly, while investigating white collar crimes, these FIO have to interact with males at various forums both from inside and outside organizations for completing their assigned task of investigation making them more vulnerable to experience GWH affecting their SWB.

### **Problem Statement**

In contemporary era, number of females at workplace is also gradually increasing even in male dominated professions like Law Enforcement Agencies. In line with the changing workplace demographics, laws are made, and policies are implemented to develop conducive environment for females. However in these male dominated professions where there is frequent interaction with public, females are even more vulnerable as they face harassment from not only within but outside the organization.

Existing literature confirms the presence of Harassment at workplaces in Pakistan, and females being the main victim of this bad phenomenon (Hassan.N 2009; Hausen.M 2010; Khan.M.A 2011; Sundaresh.N and Hemalatha 2013). Literature also focuses on how harassment experiences affect physical and mental health of victims (Riasat.T, 2009; Subhani.M.I & Azmat.T, 2012; Tribune, 2011). Previous research on harassment of females in law enforcing agencies has placed more focus on female police officers investigating blue collar crimes. However due to different demographics, work place setting and environment, this research is not generalizable to FIO investigating white collar crimes which has been given scarce attention in research studies. Moreover institutions like NAB and FIA who started recruiting females on officer cadre for investigating white collar crimes is just a story of a decade and currently no research has been done to investigate the impact of GWH on SWB of these FIO in this new workplace setting. Previously scant research has been conducted to investigate the relationship between GWH and multi-faceted SWB while various studies have independently analyzed influence of GWH on stress, job satisfaction, motivation, coping strategies.

When number of female officers are increasing in male dominated professions like Law Enforcement Agencies where they are continuously dealing with criminal minded people (accused), there is a need to explore more about experiences of GWH of such female investigation officers and how it reduces their subjective experience of wellbeing. These females are at risk of being harassed from two sides i.e from inside the organization which includes male co-workers, case officer and top management and from external environment which includes accused & their allies, witnesses, complainants, departmental representatives, judges, lawyers, general public (outside organization).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Objectives of the study**

To investigate GWH experiences of female investigation officers from within and outside organization.

To investigate impact of GWH experience on SWB of female investigation officers.

To propose a guideline for pertinent stakeholders.

**Research Questions**

GWH within organization has negative impact on SWB of female investigation officers.

GWH from outside the organization has negative impact on SWB of female investigation officers.

**Null Hypothesis**

Hypothesis 1:- GWH from inside the organization has no impact on job satisfaction of female investigation officers

Hypothesis 2:- GWH from inside the organization has no impact on positive affect of female investigation officers

Hypothesis 3:- GWH from inside the organization has no impact on family satisfaction of female investigation officers

Hypothesis 4:- GWH from inside the organization has no impact on perceived stress of female investigation officers

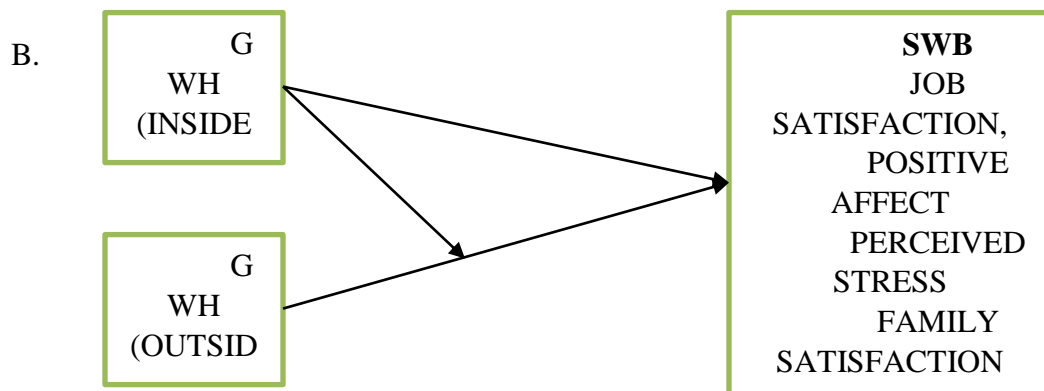
Hypothesis 5:- GWH from outside the organization has no impact on job satisfaction of female investigation officers

Hypothesis 6:- GWH from outside the organization has no impact on positive affect of female investigation officers

Hypothesis 7:- GWH from outside the organization has no impact on family satisfaction of female investigation officers

Hypothesis 8:- GWH from outside the organization has no impact on perceived stress of female investigation officers

Hypothesis 9:- GWH from inside the organization will moderate the influence of GWH from outside the organization and different facets of SW





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Literature Review**

Harassment has many kinds and forms and they mostly co occur simultaneously e.g; Sexual Harassment (SH), Gender Harassment (GH), Ethnic Harassment (EH), Verbal Harassment (VH), Generalized Workplace Harassment (GWH), exclusion, micro aggressions, bullying, incivility and cat calling etc. (Jana L. Raver, 2010) all having serious consequences on the victim. A victim most of the time experiences multiple forms of harassment and from multiple perpetrators/stakeholders e.g; a victim of GH may report as well about experiencing EH or SH. Harassment has lived out the start of account of history of humanity (Louise F. Fitzgerald, 1997). The global recognition of the problem and research over the past 30 years on this topic has, indeed, put SH on the map and made people aware that it is a grave and everyday problem that could affect anyone. People, organizations, legislators confuse the word of harassment with only SH and devise preventive strategies, punitive policies and legislations keeping in view this form of harassment so there is need to study other forms of harassments in Pakistan's workplace settings, their psychological and physiological effects on the victims. Although not a gender specific, most of studies have revealed women to be the victim in the unwanted, undesirable and unwelcomed harass attempts (Luthar & Luthar, 2007; Pina, Gannon, & Saunders, 2009).

Jana L. Raver (2010) in his study has used various terms like workplace aggression, workplace bullying, incivility, emotional abuse, social undermining referring to the phenomenon of GWH. Research suggests that from whichever name one would label GWH, it denotes to all behaviors which creates hostile, intimidating or offensive work environment but it varies from sexual harassment (SH) as the motivation behind GWH are most of the times ambiguous as compared to SH which are sexual in nature.

As researches suggest that management of SH at workplaces is an important task for all managers because SH once occurred can cause serious problems both for the victim and organization. SH can create physical and psychological problems for the victim (Louise F. Fitzgerald, 1997) and can cause reputational harm and financial loss (in terms of low productivity and high turnover) to organizations. The worst which an organization can face as a result of SH is litigations in court of law. There is need to know the effects of GWH on victim especially in Pakistan as female workforce are now encouraged at all levels and even in male dominated professions creating highly competitive environments but simultaneously increasing the chances of harassment related issues as still Pakistan's organizations are not well prepared to cope proactively with this burning issue. The law for prevention of harassment at workplace was promulgated in 2010 and still in its infancy stage which also needs improvement and recognition for its proper implementation at all levels.

As females in white collar crime investigation agencies in Pakistan (NAB, FIA, ACE) are increasing so there is requirement to study their experiences of GWH. These FIO interact with males at various levels e.g; colleagues, accused, police officers/officials, witnesses, departmental representatives, general public, judges, lawyers, etc. making a diverse set of people with whom they have to interact to complete their assigned task of investigations. As these FIO are trained in their specialized field and due to their job description, they have quite bold, intimidating personalities and enjoying power due to their job titles so there are less chances that they would be harassed sexually but experiences of GWH could be noticed which needs to be investigated.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Literature suggests that victims of SH has both long term and immediate effects on their emotional, physical and psychological state. (Woodzicka & LaFrance, 2005) This study will see the effect of various emotional and psychological effects of GWH on SWB of these FIO.

SWB has become a vibrant phenomenon in last 3 decades attracting attention of researchers from diverse fields like psychology, economics, political science, sociology, anthropology and management. The research in this field is helping to get insights into clinical aspects, organizational outcomes and level of social quality of this phenomenon. SWB is basically people's overall evaluations of their lives and their emotional experiences. SWB is a broader concept encompassing life satisfaction, family satisfaction, positive affect, perceived stress and many others. SWB is not a unitary concept but a multidimensional concept able to explain emotions and psychological aspects of one's personality (Ed Diener, 2016). Hence for this study impact of GWH on SWB of FIO will be observed to get the holistic view of their emotional and psychological feelings after experiencing any kind of GWH at workplace.

Previous research has also proposed socio-cultural factors, organizational factors and individual characteristics as some predictors of sexual harassment experiences {O'hare, 1998 #1508}. It is believed that organizational tolerance for sexual harassment plays an important role in actual occurrence of this experience. Therefore higher the female perceives that organizational environment is more conducive and supportive towards harassment, more will be the perception of harassment from outside as well and lower perception of SWB. Therefore GWH from inside the organization is also proposed to moderate the relationship between GWH from outside and SWB.

### **Rationale for the study**

Harassment is currently a burning issue and especially for organizations it is becoming a serious concern for multiple reasons e.g; for retaining their workforce, for protecting the good will and repute of their organization, for avoiding the heavy costs of litigations etc. As female work force is increasing day by day in male dominated professions so are the challenges associated with their retention, performance and motivation. The female Investigation officer's job description is complex; firstly they have to face with white collar criminals, witnesses, judges, other departments, etc outside their department for the purpose of their investigation. Secondly they have to deal with generalized workplace harassment within their department as well. So for encouraging more female workforce to join this profession and for motivation and retention of existing work force, it is inevitable to cater this serious concern of Generalized Workplace Harassment and its impact on their subjective wellbeing. As currently research is more focused on females working in corporate sector or in teaching and medical professions where there are already developed physical set ups and social acceptability for the females in those professions so it is necessary that in professions where females induction is not a norm, how are their GWH experiences and how it impacts their emotional and physiological state.

### **Significance of the study**

Literature suggests that currently researchers are focusing on issue of harassment generally and GWH specifically in corporate sector and when it comes to male dominated professions especially investigation then researchers main focus is on FIO dealing with blue collar crimes.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

This study will add body of knowledge in the field of GWH of female investigation officer at workplace especially related to investigation of white collar crimes as more and more females are joining this profession since last 10 years in Pakistan. Secondly, role of NAB, FIA and ACE as institutions is becoming crucial with the increasing demand for corruption free society so findings of current research would be helpful in increasing the efficiency, retention and motivation level of FIO by dealing with their GWH issues and its impact on their subjective wellbeing. Thirdly, it would also help to see the impact of GWH collectively on subjective wellbeing as previously stress, job satisfaction, motivation, coping strategies are discussed individually with Harassment.

Protection against Harassment of women at workplace Act was passed in 2010 so findings of this research would also help the policy makers, legislators, Ombudsman for protection against Harassment to amend, improve, and rectify the existing laws and their execution. This proposed study would help towards the safer harassment free environment for women at workplace. Practices already in existence will be improved. It will help to raise awareness among masses regarding GWH and its impact on subject wellbeing of FIO resulting in confidence. It would help to strengthen the existing theory if impact would be justified then it may do addition to existing knowledge.

### **Delimitations of the study**

Participants of this study are only FIO working in NAB, FIA and ACE all other investigation officers working in other investigation agencies or dealing with investigation of blue-collar crimes are not included in this study.

This study is only investigating GWH and not all other types of harassment.

The scale used to collect data is already established scale but has not been used previously in workplace setting of Pakistan.

### **Limitations of the study**

As data is only collected FIO of NAB, FIA and ACE so the results of this study may not be generalizable to all workplace settings.

As number of FIO working in NAB, FIA and ACE are very few in number so data size is small making the generalizability of the study limited.

### **Research Design and Methods**

#### **Research design**

Proposed study would be a quantitative analysis based study in which survey questionnaires methodology would be employed to do data collection. Quantitative data collection method would be used for this proposed study as already there are theories and reliable scales developed in this field but in this proposed study, workplace setting and environment would be changed to further ratify or refute the already existing theories.

#### **Population and Sampling**

All FIO working in NAB, FIA and ACE throughout Pakistan would be the population of this





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

study. Three stage sampling technique will be used by firstly making strata's like NAB, FIA and ACE then in second stage regional offices of these three departments will be short listed as sample through random sampling calculator and finally criterion sampling technique will be employed. As victims approach is being used in this current study and literature suggests that females are most of the time victims (Hassan.N, 2009; Hausen.M, 2010; Hemalatha, 2013; Khan.M.A, 2011) so in all the regional offices selected, questionnaires will be distributed among all FIO.

### **Instrumentation**

The variable of GWH would be calculated on Glomb's Aggressive Experiences Scale (AES) with  $\alpha=.93$ . This is a 20 items scale representing various hostile behavioral items experienced at workplace. For SWB, different scales would be used for calculating life satisfaction, Positive Affect would be measured by determining the enjoyment, gratitude and contentment on self-reported scale known as Positive and Negative Affect Scale (PANAS). The moderating variable would be determined by making different categories of inside and outside stakeholders like inside the organization i.e; peers, case officers, top management and as well outside the organization i.e; accused, witnesses, departmental representatives, complainants, judges, lawyers and others.

### **Ethical Issues**

During data collection process of this proposed study, respondents would be assured for confidentiality of the information provided as sharing one's harassment experiences is always a difficult and challenging task. Appropriate measures would be taken to handle this issue by getting informed consent, by communicating the academic objective of conducting this research, by stating categorically in the questionnaire to maintain anonymity and confidentiality of the respondents, etc.

### **Data Analysis Plan**

Partial least square structure equation modeling will be used to substantiate research model and hypothesis of the study. The survey data will be subjected to screening process in SPSS which includes analysis of missing values, outliers, normality and common method bias, then an overview of data will be presented and discussed by descriptive statistics and correlation analysis. After that study's theoretical framework will be implemented in SMART PLS 3.2 and analyzed using two step procedures as recommended by (Hair., 2017). First measurement model will be analyzed for soundness of psychometrics properties of study's measures. This include reliability, convergent validity and discriminant validity analysis. in second step structural model is analyzed for collinearity, path coefficients, coefficients of determination ( $R^2$ ), predictive relevance ( $Q^2$ ) and effect sizes. Group moderation will be conducted to justify the variability of research model by effect of GWH by external vs internal sources.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### References

Anila. (1998). *Sexual Harassment at workplaces and coping strategies employed by women*. (PhD), Quaid e Azam University, Islamabad.

Ed Diener, K. K., Samantha Heintzelman, Louis Tay. (2016). Findings All Psychologists Should Know From the New Science on Subjective Well Being. *Canadian Psychology*. doi:10.1037/cap0000063

Hassan.N. (2009). *Sexual Harassment of Female Pharmaceutical Industrial: A Study of Industrial State Hayatabd Peshawar, NWFP. Peshawar*.

Hausen.M. (2010). Sexual Harassment: No means no. *Express Tribune*. Karachi. *Express Tribune*.

Hemalatha, S. N. a. K. (2013). Theoretical Orientation to Sexual Harassment at Work Place. *Journal of Business Management and Social Sciences Research* 2(4), 74-81.

Jana L. Raver, L. H. N. (2010). Once, Twice, or Three Times as Harmful? Ethnic Harassment, Gender Harassment, and Generalized Workplace Harassment. *Journal of Applied Psychology*, 95(2), 236-254.

Khan.M.A. (2011). Sexual Harassment on campus: Universities oblivious of HEC guidelines. Retrieved 25th March 2013 [www.pakistanpressfoundation.org](http://www.pakistanpressfoundation.org)

Louise F. Fitzgerald, F. D., Charles L. Hulin, Michele J. Gelfand, and Vicki J. Magley. (1997). Antecedents and Consequences of Sexual Harassment in Organizations:

A Test of an Integrated Model. *Journal of Applied Psychology*, Vol. 82.(No 4), 578-589.

Luthar, H. K., & Luthar, V. K. (2007). A theoretical framework explaining cross-cultural sexual harassment: Integrating Hofstede and Schwartz. *Journal of Labor Research*, 28(1), 169-188.

Protection Against Harassment of Women at Workplace Act, (2010).

Pina, A., Gannon, T., & Saunders, B. (2009). An overview of the literature on sexual harassment: Perpetrator, theory, and treatment issues. *Aggression and Violent Behavior*, 14(2), 126-138.

Riasat.T. (2009). *Sexual Harassment in the Nursing Profession: Challenges and opportunities for policy Implementation*. Retrieved from Islamabad:

Subhani.M.I, & Azmat.T. (2012). Does Workplace Sexual Harassment Matter? *International Journal of Accounting and Finance*.

Tribune, E. (2011). Curbing sexual harassment: HEC sends policy to universities. *Express Tribune*. Retrieved from <http://tribune.com.pk/story/122392/curbing-sexual-harassment-hec-sends-policy-to-universities/>

Woodzicka, J. A., & LaFrance, M. (2005). The effects of subtle sexual harassment on women's performance in a job interview. *Sex Roles*, 53(1), 67-77.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Banking Sector Performance measured by CAMELS Rating Framework**

Hibba Saeed

University of Lahore, Pakistan

Ahsin Shahid

COMSATS Islamabad, Pakistan

Rida Akbar

University of Education Lahore, Pakistan

Ahmad Usman

University of the Punjab, Lahore, Pakistan

#### **Abstract**

This study has been initiated to achieve the objective that is; “*to evaluate the performance of the banking sector in Pakistan by applying CAMELS approach*”. CAMELS rating and ranking framework has been applied in the study because it is internationally accepted bank performance measuring tool that evaluates the overall financial health of banks by identifying financial, managerial and operational strength and weaknesses of the bank. ‘CAMELS’ is an abbreviation of; Capital, Assets, Management, Earning, Liquidity and Sensitivity to market risk. We have evaluated the performance of the banks which are listed at Karachi Stock Exchange. CAMELS evaluation and analyses results for the Pakistani sample banks revealed that almost all large banks are placed at the top that shows better performance in the banking industry as compared to the small banks that were lagging behind. The top 5 Banks are; Meezan bank, NBP, MCB, HBL and UBL. Mentioned banks are government owned except Meezan bank which is a private sector bank. However, only one small bank that is; JS Bank is among the top 10 ranked banks.

**Keywords:** CAMELS, ranking, rating, efficiency ratio, banks performance, banking industry, Pakistan.

#### **Introduction**

A sound and progressive financial sector is essential to support economic growth of a country. According to SBP, “*as growth in the banking sector and the real economy mutually strengthen each other*”. The banking sector constitutes the core of the financial sector in Pakistan. Private sector investment and consumption should be seen as the key drivers of the economy and must be supported by growing financial inter-mediation and services, including not only banks but also non-bank financial institutions, and debt securities and the stock market.

The aim and objective of this research study is to assess the performance of the banking sector in Pakistan by applying CAMELS approach. In order to achieve the aim and objective, the methodology is based on the CAMELS framework. This framework was firstly known under the name of CAMEL. The Uniform Financial Institutions Rating System (UFIRS) was adopted by the Federal Financial Institutions Examination Council



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

(FFIEC) on November 13, 1979. Under the 1997 revision of the UFIRS, each financial institution is assigned a composite rating based on an assessment and rating of six essential components of an institution's financial condition and operations that are summarized in a composite "CAMELS" rating. The acronym CAMELS stands for **Capital Adequacy, Asset Quality, Management, Earnings, Liquidity, and Sensitivity to Market Risk**. Composite and component ratings are assigned based on a 1 to 5 numerical scale. The rating 1 indicates the highest rating, strongest performance and risk management practices, and least degree of supervisory concern, while the rating 5 indicates the lowest rating, weakest performance, inadequate risk management practices and therefore, the highest degree of supervisory concern (Federal Deposit Insurance Corporation, 1997).

During the great depression of the 1940s, the stream of bank failures experienced in the USA encouraged considerable awareness to bank performance and this consideration has been grown constantly since then. In 1979, USA federal regulators developed the CAMELS rating system, with framework for rating financial position and individually banks performance. Due to the recent global financial crises of 2007–2008, both national and international economies recognized the importance of banks performance and need to keep it under supervision. The CAMELS rating system provides a way to categorized bank based on financial condition, overall physical condition and measurement of banks financial, managerial, operational and complying performance. Under CAMELS rating system, bank performance was evaluated in six parameters namely; Capital ability (C), Assets quality (A), Management soundness (M), Earnings and Profitability (E), Liquidity management (L) and Sensitivity to market risk (S).

Therefore, in this study CAMELS rating system has been employed to measure the overall financial health and position of selected commercial banks. The research paper is organized as follows: part two elaborates the review of the relevant literature on the subject, part three is dedicated to the data and the methodology used, part four covers the analysis and discussion of the selected banks and part five concludes the study.

### **Background Literature on CAMELS**

The role of public sector banks and other financial institutions in economic development had been examined in many studies. There were two broad views about government involvement in financial systems around the world, i.e; 'development' view and 'political' view. The development view as analyzed by **Gerschenkron (1962)** stated that governments could intervene through their financial institutions to direct savings of the people towards developmental sectors in countries where financial institutions were not adequately developed to channel resources into productive sectors.

Contrary to this view, in recent years a new 'political' view of government ownership had evolved which asserts that state control of finance through banks and other institutions politicizes resource allocation for the sake of getting votes or bribes for office holders and thereby results in lower economic efficiency.

Cole and Gunther (1998) had made a study on—A CAMEL Rating's Shelf Life and





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

their findings suggested that, if a bank had not been examined for more than two quarters, off-site monitoring systems usually provide a more accurate indication of survivability than its CAMEL rating. They also concluded that off-site monitoring systems should continue to play a prominent role in the supervisory process, as a complement to on-site examinations. Barr et al. (1999) provided evidence that a shift in investors' focus from earnings information to book values was noticeable for firms weakening in financial health. With regard to research on the value consequence of accounting signals especially in the banking sector.

J. Baral (2005) examined the “Health Check-up of Commercial Banks in the framework of CAMEL: A Case Study of Joint Venture Banks in Nepal”. The health checkup had conducted on the basis of publicly available financial data and concluded that the health of joint venture banks was better than that of the other commercial banks. Wirnkar and Tanko (2008) analyzed the adequacy of CAMEL in capturing the overall performance of a bank. The findings had revealed the inability of each factor in CAMEL to capture the holistic performance of a bank. Also revealed, had the relative weight of importance of the factors in CAMEL which resulted to a call for a change in the acronym of CAMEL to CLEAM.

Atkogullari (2009) employed a similar approach based on CAMEL framework to analyze the performances of the Northern Cyprus banking sector. The results suggested that the profitability and the management quality of the analyzed banks had improved during the analyzed period of time, while deterioration had been registered in the capital adequacy and liquidity level. Sangmi and Nazir (2010) evaluated the financial performance of the two major banks i.e; one biggest nationalized bank (PNB) and other biggest private sector bank (JKB) operating in northern India during 2001-2005. The position of the banks under study was sound and satisfactory so far as their capital adequacy, asset quality, Management capability and liquidity was concerned.

Prasad et al. (2011) examined the performance of banking sector they had chosen the CAMEL model which measures the performance of all public sector banks and thirteen private sector banks during 2005-10 and each parameter was given equal weights. Results had shown that on average Karurvysya bank was at the top most position followed by Andhra bank, Bank of Baroda also it was observed that Central Bank of India was at the bottom most position. Babar and Zeb (2011) examined the “CAMELS rating system for banking industry in Pakistan”. They observed the similarities in the results generated by CAMELS rating system and PACRA rating agency. For that purpose they took sample of 17 commercial banks of Pakistan. The results generated by sample banks did not show any similarities with each other. This might be an indication of the banks that had gone on to bankruptcy in past three to four years or a future threat to financial sector of Pakistan.

Shar et al. (2011) examined the nationalization and de-nationalization of the banking industry in Pakistan. An effort had been made to analyze and evaluate the performance and efficiency of the banking sector using CAMEL parameters. It had been explored that the position of banks under study were sound and satisfactory with regards to capital





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

adequacy, assets quality, management capabilities, earnings and liquidity. Dincer et al. (2011) analyzed “A Performance Evaluation of the Turkish Banking Sector after the Global Crisis via CAMELS Ratios” during 2002-2009. He found positive developments had seen in terms of the performance of State-owned, Privately-owned and Foreign Banks after 2001 and 2008 crisis. The equity ratio which had assigned for respective risks of banks after the crisis varied in parallel to macro-economic developments under the condition of banking rule about being above the ratio of 8%.

Keovongvichith (2012) examined the Recent Financial Performance of the Laotian Banking Sector during 2005-2010. He also analyzed the financial performance of the banking sector by firstly examined the key financial development indicators and then used a widely-used CAMEL framework. The results of this study was useful for assisting central bankers to know the strengths and weaknesses for formulating strategies and polices that will promote an effective and sound banking system. Reddy (2012) evaluated the “relative performance of banks in India using CAMEL approach”. The data set consists of public (26), domestic private sector (19) and foreign banks (16) and rankings were given to various banks for the years 1999 and 2009. It concluded that Public sector banks had significantly improved where as private sector banks had drastically deteriorated in their performance.

Gebba and Ahmed (2013) evaluated the financial performance of Alexandria bank pre-post privatization over 10 year’s period (5 years before and 5 years after privatization) by using CAMEL framework. The performance of the bank of Alexandria after privatization on average was significantly better at the level of capital adequacy and earnings. There was a significant difference between performance of the two stages and most likely in favor of privatization. Mishra et al. (2013) analyzed the soundness and measured the efficiency of 12 public and private sector banks based on market cap over a period of eleven years (2000-2011) in the Indian banking sector. CAMEL approach had been used and it was established that private sector banks are at the top of the list, with their performances in terms of soundness being the best. DEA provided significant insights on efficiency of different banks and placed private sector ones at an advantage situation. Roman and Sargu (2013) analyzed the “financial soundness of the commercial banks that operate in Romania”. Their research had been focused on 15 banks that operated in Romania during 2004-2011 by using CAMELS framework. The results obtained highlighted the strengths and the vulnerabilities of the analyzed banks, underlining the need to strengthen the concerns of the decision makers from banks to improve and increase their soundness.

Subhal and Vishal (2015) evaluated the financial performance of new age private sector banks operating in India for the period 2009-2014. They investigated that Kotak Mahindra Bank occupies the top position in new private sector banks. N. Bawa (2017) evaluated the performance analysis of nationalized banks using CAMEL Model covering 19 nationalized banks in the period of 2006-16. The results revealed that Indian bank was top in terms of Capital adequacy; Bharatiya Mahila Bank in terms of Asset quality; IDBI in terms of Management efficiency and Earnings and Andhra Bank was efficient in



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

overall performance.

Shaddady and Moore (2019) investigated the effects of financial regulation and supervision on bank stability using panel data for 2210 banks across 47 European countries over the period 2000–2016. The CAMELS rating system was applied to quantile regressions. They found that greater capital regulation was positively associated with bank stability, whilst tighter restrictions, deposit insurance and excess of supervision appear to exert an adverse effect on bank stability. These effects were more pronounced among banks at a higher level of stability. It also appeared that commercial banks, smaller banks and banks in emerging countries were relatively sensitive to regulatory shocks.

Data and Methodology

CAMELS rating system has been applied on the data extracted from annual financial statements of the commercial banks operating in Pakistan. Twenty two (22) commercial banks are listed at Karachi Stock Exchange (KSE-100) which has been taken as sample of the study (see Appedix-1 for the list of banks). This research is a Cross-sectional study that data ranging from fiscal year 2000-01 to 2018-19. Financial data of listed commercial banks has been provided on special request by the Securities and Exchange Commission of Pakistan (SECP). We have computed the average separately for each of the parameters used and each indicator from the CAMELS framework for the analyzed period of time (2000 - 2019). The bank which scored best has been placed at rank one and following banks have been ranked according to their scores. However, banks that obtained the same average have been assigned the same rank. Based on the components of the CAMELS framework we have evaluated the performance of the commercial banks taken as sample.

### Classification of CAMELS

**C** stands for **Capital adequacy**: This is one of the most important indicators for the financial health of the banking sector. This indicates that banks capacity to retain capital proportionate with the nature and degree of all types of risks, as also the ability of the banks manager to identify measure, monitor and control these risks. (Suresh and Paul, 2010, P. 64)

In this research study, the Capital to Assets and Capital to liability ratio are used to calculate the ratio of capital adequacy. Absolutely, the higher the ratio the more stable situation of that bank is and perfectly the highest rank has been given to the bank that has recorded the highest point for this ratio.

**A** stands for **Asset quality**: The Asset quality of any financial institutions or firm is a significant determinant of its financial condition and health namely it's earning capability. This measure reveals the magnitude of credit risk prevailing in the bank due to its composition and quality of loans, off balance sheet activities, investment and advances.

The quality of assets usually can be calculated by using indicators like Total loans and advances to total assets and Non-performing loans to total advances (gross). In the case of a bank, the loans represent the most important part of the assets, but a high ratio



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

reflects also an assets structure more sensitive to loan losses (Roman & sargu, 2013).

Assets that have low quality usually have higher possibility to become a Non-Performing Loan. NPLs are usually bad debts that are in default or they are near to be in default. There is no specific standard for the banks across the globe that elaborates which assets to be included in nonperforming loans, but in Pakistan those which are in default for more than three months are included in non-performing loans (Baber & Zeb, 2011). Lower asset quality ratio shows higher performance of the bank.

**M** stands for **Management quality**: The growth of any financial institution or firm is greatly dependent on soundness of its overall management. Signaling the ability of the BODs and senior managers to identify measure, examine and control risks related with banking institutions. This qualitative measure provides work for risk management policies and processes as indicators of sound management.

It is the ratio between total Non-markup expenses to total Non-markup income. Total non-markup expenses include Salaries and related expenses, other administrative expenses, other Provision and charges. While total non-markup Income includes Fee, commission, brokerage and dividend income, Income from dealing in foreign currencies, capital gains and any other Income. It indicates the ability of company to meet operating expenses from the revenues generated by the banks. The lower the ratio, the better will be the bank.

**E** stands for **Earnings and profitability**: It is added to base of capital while losses result in the wearing down of capital base. This indicator not only demonstrates the amount of and the trend in earnings but also analyses the sturdiness of expected earnings growth in future. For any financial institution to practicable in the long term, it has to be profitable.

The generally used indicators for evaluating earnings and profitability of any institution are **Return on Assets (ROA)** and **Return on Equity (ROE)**. ROA is the net profit after tax to total assets ratio. Higher the ROA means greater returns earned on assets deployed by the bank. While ROE is the net profit after tax to total shareholders' equity ratio. This ratio also illustrates the efficiency of bank, that how any bank uses its own capital in a competent manner (Christopoulos et al. 2011, p. 13).

**L** stands for **Liquidity**: It is ability of a firm to convert its financial assets into cash most rapidly or we can say availability of the funds to pay off all its financial obligations when they become due. Liquidity of a firm can be calculated by using liquidity financial ratios (Baber & Zeb, 2011). This measure takes into consideration the sufficiency of the bank's current and prospective source of liquidity, including the strength of its funds management practices.

The liquidity risk created to any firm or institution can be evaluated by using loans to deposit ratio. A rising ratio indicates liquidity problems for a bank. It is ratio of Loan and advances to Deposits =  $\text{Total Loans and advances} / \text{Total Deposits}$ . It indicates the capability of a bank to convert its deposits into higher earning advances. Thus, lower this ratio; the higher the rank can be achieved.

**S** stands for **Sensitivity to market risk**: It is latest addition to the ratings parameters



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and reveals the extent to which changes in foreign exchange rates, interest rates, commodity prices and equity prices can influence earnings and capital of banks. (Suresh and Paul, 2010, P. 64)

Although the banking activity is significantly influenced by the variation of the financial assets prices, a series of studies do not consider this to be the sixth component of the CAMELS especially as a result of the measurement difficulties based on the accounting and financial data. Thus, in its place in some studies (Roman & Sergu, 2013; Camelia & Angela, 2012) it is considered the Size (S) of the bank, that is represented by that bank assets in the total assets of banking sector ratio. Thus, higher ratio the more important is bank's assets for that specified banking sector and higher the rank could be achieved (Camelia & Angela, 2012).

### **Ratios of CAMELS measuring framework**

Capital Adequacy

Capital to Assets = Total Capital / Total Assets

Capital to Liability = Total Capital / Total Liabilities

Asset Quality

Earning Assets to Total Assets = Total Loans & Advance / Total Assets

NPLs to Gross advances = Total NPLs / Total Loans (gross)

Management Soundness

Total Expenses to Total Income = Total Non-markup Expenses / Total Non- markup Income

Earnings and Profitability

Return on Assets = Net Profit / Total Assets

Return on Equity = Net Profit / Total Equity

Liquidity

Loans to Deposits = Total Loans / Total Deposits

Sensitivity to Market Risk

Size of bank's Assets = Bank assets / total assets of the banking sector.

### **Overall Composite Rating of CAMELS framework**

The allocating of composite rating to a commercial bank has been focused on the individual component ratings of the CAMELS. These components can be weighted and totaled in order to enumerate a composite rating. Nevertheless, a composite approximation will perhaps need modification in consequence of considering qualitative factors that may strongly manipulate the researchers' judgment.

#### **Rating analysis**

1.0-1.4

1.5-2.4

2.5-3.4

3.5-4.4

4.5-5.0

#### **Interpretation**

Strong and sound

Satisfactory

Fair (watch category)

Marginal (some risk of failure)

Unsatisfactory (high degree of failure)





**Analysis and discussion**

In this section of our research we have analyzed the financial soundness of the 22 selected banks based on the CAMELS framework. All six components of CAMELS rating model have been applied to rate the banks on the scale of one to five. Component having rating 1 shows strong position while rating 5 indicates worst position of a bank. Each component has a well thought out scale of rating based on the prevailing financial and economic conditions (Saltzman & Salinger, 1998).

A criterion of CAMELS rating system to assign ratings to different banks is as follows:

<b>CAMELS Rating Components</b>	<b>Rating 1 (%)</b>	<b>Rating 2 (%)</b>	<b>Rating 3 (%)</b>	<b>Rating 4 (%)</b>	<b>Rating 5 (%)</b>
<b>Capital Adequacy Ratio 1</b>	≥20	15-19.99	10-14.99	5-9.99	≤ 4.99
<b>Capital Adequacy Ratio 2</b>	≥25	18-24.99	12-17.99	6-11.99	≤ 5.99
<b>Assets quality Ratio 1</b>	≤ 30	39-31.99	49-40.99	59-50.99	≥ 60
<b>Assets quality Ratio 2</b>	≤ 0.5	1.59-0.6	2.69-1.6	3.79-2.7	≥ 5
<b>Management</b>	≤100	260-101.9	420-261.9	580-421.9	≥581
<b>Earnings (ROA)</b>	≥1.5	0.9-1.49	0.3-0.89	0.1-0.29	≤ 0
<b>Earnings (ROE)</b>	≥25	19-24.99	13-18.99	7-12.99	≤ 6.99
<b>Liquidity Ratio</b>	≤ 50	60-51.99	70-61.99	80-71.99	≥81.99
<b>Sensitivity Ratio</b>	≥15	10-14.99	5-9.99	1-4.99	≤ 0.99

In order to estimate the capital adequacy of the banks from our sample we have employed two representative indicators that are Capital to Assets and Capital to liability ratio. Adequacy of capital shows the financial strength of a bank and this financial strength usually shows by bank through Capital Adequacy ratio (CAR). Regulatory banks in most countries determine and keep an eye on minimum CAR for commercial banks of the country. Minimum CAR determined by State Bank of Pakistan is 14% (Baber & Zeb, 2011). Most sample banks show good CAR and their ratio shows good quality of obedience with the regulatory requirements.

**Table 1: Capital Adequacy Ratio for the banks from the sample**

<b>Bank name</b>	<b>CAR 1 Avg (%)</b>	<b>Rating</b>	<b>CAR 2 Avg (%)</b>	<b>Rating</b>	<b>Composite Rating</b>
<b>ABL</b>	4.13	5	4.55	5	5
<b>AKBL</b>	5.82	4	6.18	4	4
<b>BAFL</b>	4.95	5	5.22	5	5



Source: Researcher's calculations based on SECP data sheet. It has been observed that the	<b>BAHL</b>	5.57	4	5.90	5	4.5
	<b>BIPL</b>	20.65	1	31.24	1	1
	<b>BOP</b>	7.53	4	8.09	4	4
	<b>KASBB</b>	10.06	3	11.48	4	3.5
	<b>BOK</b>	13.95	2	16.28	3	2.5
	<b>FABL</b>	10.33	3	11.26	3	3
	<b>HBL</b>	7.47	4	8.14	4	4
	<b>MEBL</b>	11.99	3	14.12	3	3
	<b>NBP</b>	10.14	3	11.47	4	3.5
	<b>HMB</b>	7.61	4	8.25	4	4
	<b>MCB</b>	9.65	3	10.93	4	3.5
	<b>NIB</b>	15.36	2	13.01	3	2.5
	<b>JSBL</b>	19.29	2	24.34	2	2
	<b>SMBL</b>	19.25	2	32.21	1	1.5
<b>SBL</b>	25.80	1	35.36	1	1	
<b>SILK</b>	4.58	5	4.89	5	5	
<b>SNBL</b>	7.67	4	8.32	4	4	
<b>SCBPL</b>	14.70	3	17.36	3	3	
<b>UBL</b>	13.45	2	8.31	4	3	

smaller banks have a higher auto-financing level compared with the large ones. Samba bank and BankIslami are the banks having best composite CAR and have best regulatory requirements. This is the reason these banks have a component rating of “1”. Almost all sample banks have a good capital adequacy ratio and are rated between 2 and 3. Hence, they show satisfactory position of the sample banks. However, Allied bank, Silk bank and Bank Al-Falah have lower CAR values and their regulatory requirements are below average. That’s why they have a composite rating of “5”. Contrary to the results of large banks Habib Bank, Askri bank and Habib metropolitan bank have rating “4” in capital adequacy.

A good body of literature explains that the management of the banks has usually been concerned with the quality of their assets because cost control plays an important role in profit making capability of a bank. The quality of Assets can be measured using financial ratios like total loans and advances to total assets and NPLs to total advances (gross). Calculations have shown that the majority of large banks have showed good asset quality and rated between 2 and 3. All small banks such as BOP, Faysal Bank, NIB Bank and Soneri Bank have shown marginal asset quality, therefore rated 4.

In regard to other ratio, almost all banks whether they are national or private banks, small or big banks, they have their non-performing loans greater than the provision they provided against these loans. However, non-performing loans of Al-Habib bank has not exceeded its loan provisions that’s why it is rated “1”. Empirical findings shows that all small banks (in terms of assets) such as; BOK, KASB Bank, JS Bank, NIB Bank, Samba, Standard chartered and summit bank have large amount of non-

performing loans and all of them are rated 4 and 5 on the component rating for asset quality. Whereas majority of large banks have good asset quality and have been rated “2”. In regard of composite rating of asset quality, all sample banks lies in rating 2 and 3 that is the reason they show satisfactory position.

**Table 2: Asset quality ratios for the banks from the sample**

Bank name	AQR 1 (%) average	Rating	AQR 2 (%) Average	Rating	Composite rating
<b>ABL</b>	49.91	3	1.90	3	3
<b>AKBL</b>	52.01	4	1.56	2	3
<b>BAFL</b>	49.62	3	0.82	2	2.5
<b>BAHL</b>	50.10	4	0.50	1	2.5
<b>BIPL</b>	30.06	1	0.62	2	1.5
<b>BOP</b>	50.16	4	2.26	3	3.5
<b>KASBB</b>	47.59	3	3.48	4	3.5
<b>BOK</b>	35.53	2	3.08	4	3
<b>FABL</b>	57.42	4	0.95	2	3
<b>HBL</b>	49.97	3	1.56	2	2.5
<b>MEBL</b>	49.50	3	0.87	2	2.5
<b>NBP</b>	43.85	3	1.50	2	2.5
<b>HMB</b>	49.97	3	1.03	2	2.5
<b>MCB</b>	45.48	3	1.25	2	2.5
<b>NIB</b>	53.40	4	3.45	4	4
<b>JSBL</b>	31.13	2	1.61	3	2.5
<b>SMBL</b>	46.01	3	3.29	4	3.5
<b>SBL</b>	36.92	2	4.72	5	3.5
<b>SILK</b>	51.24	2	2.77	3	2.5
<b>SNBL</b>	50.20	2	1.07	2	2
<b>SCBPL</b>	43.81	3	3.69	5	4
<b>UBL</b>	49.92	2	1.58	2	2

gement of all large national and private banks has not surprisingly performed better than small banks. But the main reason behind their better performance was the availability of large pool of resources and fund to large banks to hire best management personal available in the market that’s why these banks are ranked 1 and 2. Samba Bank and Bankislami are in the worst condition and needs considerable regulatory authorities’ supervision to come out of the management problems. Summit Bank, BOK and NIB Bank are other two small banks that have component rating of “3” which shows management performance concerns. Summit Bank is a newly created in result of merger of Arif Habib Bank Limited and Atlas Bank Limited. This might be the reason there are several loop holes in its management performance (Baber & Zeb, 2011).

**Table 3: Management quality ratio for the banks from the sample**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

<b>Bank name</b>	<b>Management ratio (%)</b>	<b>Rating</b>
<b>Allied Bank Limited</b>	237.1	2
<b>Askari Bank Limited</b>	183.3	2
<b>Bank Al Falah Limited</b>	189.3	2
<b>Bank Al Habib Limited</b>	187.1	2
<b>Bank Islami Pakistan Limited</b>	585.2	5
<b>Bank of Punjab</b>	149.4	2
<b>KASB Bank Limited</b>	250.4	2
<b>Bank of Khyber</b>	323.1	3
<b>Faysal Bank Limited</b>	114.7	2
<b>Habib Bank Limited</b>	187.3	2
<b>Meezan Bank Limited</b>	175.7	2
<b>National Bank Of Pakistan</b>	150.6	2
<b>Habib Metropolitan Bank</b>	93.51	1
<b>MCB Bank Limited</b>	194.6	2
<b>NIB Bank Limited</b>	359.7	3
<b>JS Bank Limited</b>	280.2	2
<b>Summit Bank Limited</b>	410.4	3
<b>Samba Bank Limited</b>	748.6	5
<b>Silk Bank Limited</b>	199.5	2
<b>Soneri Bank Limited</b>	143.2	2
<b>Standard Chartered Bank</b>	181.1	2
<b>United Bank Limited</b>	177.8	2

Source: researcher's calculations.

As it is clear that all commercial financial institution are undertaking their business activities and accept risk only for the purpose of attaining positive earnings. The economy of Pakistan is going through the phase of recovery after the great financial crisis which hit whole world and a massive devastated flood ever in the history of the country, earnings of most sectors of the economy are decreased. Earnings of our sample banks displayed the same results and almost all small banks have negative earnings in the year 2010. All those banks that have negative earnings are rated “5” in their earnings rating. Medium size banks such as Askari Bank limited, Bank Al Falah limited, Silk and Standard Chartered Bank Pakistan have satisfactory earning and are rated as “3” in their earnings component rating. It is only the large banks such as Allied Bank Limited, Bank Al Habib, HBL, MCB Bank, NBP and UBL that have adequate earnings that’s the reason they are rated 1 and 2.

**Table 4: Earning ratios for the banks from the sample**

Bank name	ROA (%) average	Rating	ROE (%) Average	Rating	Composite rating
<b>ABL</b>	0.53	3	37.08	1	2
<b>AKBL</b>	0.91	2	16.46	3	2.5
<b>BAFL</b>	0.74	3	15.79	3	3
<b>BAHL</b>	1.25	1	22.45	1	1
<b>BIPL</b>	-0.11	5	0.752	5	5
<b>BOP</b>	0.13	4	-28.09	5	4.5
<b>KASBB</b>	-1.67	5	-24.09	5	5
<b>BOK</b>	0.68	3	5.511	5	4
<b>FABL</b>	1.53	1	13.18	3	2
<b>HBL</b>	1.29	2	16.12	3	2.5
<b>MEBL</b>	1.45	2	14.18	3	2.5
<b>NBP</b>	1.36	2	12.93	4	3
<b>HMB</b>	1.31	2	17.35	3	2.5
<b>MCB</b>	2.2	1	21.14	2	1.5
<b>NIB</b>	-1.01	5	-8.85	5	5
<b>JSBL</b>	-0.11	5	-0.59	5	5
<b>SMBL</b>	-1.53	5	-36.53	5	5
<b>SBL</b>	-2.61	5	-11.89	5	5
<b>SILK</b>	-0.97	5	25.89	1	3
<b>SNBL</b>	0.96	5	12.89	4	4.5
<b>SCBPL</b>	1.46	2	12.53	4	3
<b>UBL</b>	1.06	2	-28.23	5	3.5

Source: researcher's calculations.

l, nationalized and private banks have adequate earning and profitability, and they are rated 2 and 3 in their composite rating. However, all small banks whose have either negative earnings are rated 4 and 5 in terms of composite rating.

It is observed that almost all banks have a good level of liquidity position and no alarming liquidity concerns for any particular bank. Only NIB and Silk bank have some minor dispositions in there liquidity level but that can be rectified with the proper attention by management of the banks and regulatory authorities. Some large and medium size banks have showed satisfactory level of liquidity position that why these banks are rated 2 and 3 in their liquidity component rating. Whereas, some small bank such as BOK and Bank Islami have good liquidity position and rated as “1” in terms of component rating.

**Table 5: Liquidity ratio for the banks from the sample**

	<b>Bank name</b>	<b>Liquidity ratio (%)</b>	<b>Rating</b>
Sensitivity to market risk is considered as Size of the bank that is represented by the ratio of bank asset in the total assets of banking sector.	<b>Allied Bank Limited</b>	59.34	2
	<b>Askari Bank Limited</b>	65.30	3
	<b>Bank Al Falah Limited</b>	60.37	2
	<b>Bank Al Habib Limited</b>	65.05	3
	<b>Bank Islami Pakistan Limited</b>	44.30	1
	<b>Bank of Punjab</b>	57.35	2
	<b>KASB Bank Limited</b>	65.37	3
	<b>Bank of Khyber</b>	50.23	1
	<b>Faysal Bank Limited</b>	80.41	4
	<b>Habib Bank Limited</b>	62.12	3
	<b>Meezan Bank Limited</b>	63.46	3
	<b>National Bank Of Pakistan</b>	54.46	2
	<b>Habib Metropolitan Bank</b>	74.11	4
	<b>MCB Bank Limited</b>	59.46	2
	<b>NIB Bank Limited</b>	90.81	5
	<b>JS Bank Limited</b>	45.60	1
<b>Summit Bank Limited</b>	68.06	3	
<b>Samba Bank Limited</b>	64.91	3	
<b>Silk Bank Limited</b>	72.60	4	
<b>Soneri Bank Limited</b>	66.49	3	
<b>Standard Chartered Bank</b>	65.38	3	
<b>United Bank Limited</b>	62.13	3	

Therefore, higher ratio, the more important is the bank' assets for that particular banking sector and higher rank could be achieved. It is observed that in the sample banks, 2 banks that is National bank of Pakistan and HBL has extreme level of with its assets and have a component rating of "1" in sensitivity ratio. While medium sized bank such as Faysal bank, Habib Metropolitan, Al-Falah and BOP are banks are rated 4 and 3 on the component rating. Some small sized banks such as Bank islami, KASB bank, JS bank and BOK are rated "5" in the sensitivity component rating.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Table 6: Sensitivity ratio for the banks from the sample

<b>Bank name</b>	<b>Sensitivity ratio (%)</b>	<b>Rating</b>
Allied Bank Limited	5.806	3
Askari Bank Limited	3.512	4
Bank Al Falah Limited	4.780	4
Bank Al Habib Limited	2.592	4
Bank Islami Pakistan Limited	0.457	5
Bank of Punjab	2.712	4
KASB Bank Limited	0.641	5
Bank of Khyber	0.692	5
Faysal Bank Limited	2.570	4
Habib Bank Limited	15.01	1
Meezan Bank Limited	1.405	4
National Bank Of Pakistan	16.55	1
Habib Metropolitan Bank	2.80	4
MCB Bank Limited	9.52	3
NIB Bank Limited	1.867	4
JS Bank Limited	0.142	5
Summit Bank Limited	0.758	5
Samba Bank Limited	0.327	5
Silk Bank Limited	1.044	4
Soneri Bank Limited	1.455	4
Standard Chartered Bank	4.839	4
United Bank Limited	9.597	3

Source: researcher's calculations based on FSA reports by SBP.

#### **Banks ranking on the basis of CAMELS rating system**

In table 7, all sample banks are ranked on the basis of the total component score attained by every individual bank. Lower the score better is ranking of the banks. It is observed that almost all large banks are included on the top of the list that shows their better performance as compare to the small banks. The top 5 Banks are; Mezan bank, NBP, MCB, HBL and UBL. These are nationalized banks of Pakistan except Mezan bank. Only one small bank that is, JS Bank is among the top 10 banks. Large banks showed better performance in all components of CAMELS rating system and are rated lower on the individual component ratings and finally they have lower total for component ratings and secure ranking on the top of the table. These banks maintain adequate performance and very good risk management practices and has high quality of management that maintains a good level of liquidity.



**Table 7: Sample banks ranking**

<b>Bank name</b>	<b>Total component score</b>	<b>Ranking</b>
Allied Bank Limited	17	6
Askari Bank Limited	18.5	9
Bank Al Falah Limited	18	8
Bank Al Habib Limited	17	6
Bank Islami Pakistan Limited	18.5	9
Bank of Punjab	20	12
KASB Bank Limited	20	12
Bank of Khyber	18.5	9
Faysal Bank Limited	18	8
Habib Bank Limited	15	4
Meezan Bank Limited	13.5	1
National Bank Of Pakistan	14	2
Habib Metropolitan Bank	18	8
MCB Bank Limited	14.5	3
NIB Bank Limited	23.5	15
JS Bank Limited	17.5	7
Summit Bank Limited	21	13
Samba Bank Limited	22.5	14
Silk Bank Limited	18.5	9
Soneri Bank Limited	19.5	11
Standard Chartered Bank	19	10
United Bank Limited	16.5	5

**Source: Researcher’s calculations**

Aforementioned banks have satisfactory level of capital adequacy ratio and quality of assets on their balance sheet. Whereas, all small banks besides JS bank, Bank of Khyber and Bank islami limited are ranked lower in the ranking table of the sample banks. The reasons are the negative earnings of the banks because of large amount of non-performing loans became the cause of inefficient management which had to manage bank’s assets efficiently and efficiently.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### CAMELS' Composite Rating

**Table 8: CAMELS composite rating**

Bank	C	A	M	E	L	S	Composite Rating
ABL	5	3	2	2	2	3	2.8
AKBL	4	3	2	2.5	3	4	3.1
BAFL	5	2.5	2	3	2	4	3.08
BAHL	4.5	2.5	2	1	3	4	2.8
BIPL	1	1.5	5	5	1	5	3.08
BOP	4	3.5	2	4.5	2	4	3.3
KASBB	3.5	3.5	2	5	3	5	3.3
BOK	2.5	3	3	4	1	5	3.08
FABL	3	3	2	2	4	4	3
HBL	4	2.5	2	2.5	3	1	2.5
MEBL	3	2.5	2	2.5	3	4	2.25
NBP	3.5	2.5	2	3	2	1	2.33
HMB	4	2.5	1	2.5	4	4	3
MCB	3.5	2.5	2	1.5	2	3	2.4
NIB	2.5	4	3	5	5	4	3.9
JSBL	2	2.5	2	5	1	5	2.9
SMBL	1.5	3.5	3	5	3	5	3.5
SBL	1	3.5	5	5	3	5	3.75
SILK	5	2.5	2	3	4	4	3.08
SNBL	4	2	2	4.5	3	4	3.25
SCBPL	3	4	2	3	3	4	3.16
UBL	3	2	2	3.5	3	3	2.75

**Source: Researcher's calculations.**

In this research study CAMELS framework of rating and ranking system has been applied on 22 sample banks operating in Pakistan. All these banks are rated on the numerical scale of 1 to 5. Out of 22 banks none of the sample bank is able to achieve a composite rating 1, total three sample banks have a composite rating of “2” that is Meezan bank, National bank of Pakistan (NBP) and MCB. This rating indicates that these banks are sound and safe but may express humble weaknesses that are correctable easily. To the amount that corrective amendments could be handled in normal way of the banking companies or financial business and supervisory attention would be negligible.

Majority of banks are able to secure composite rating “3”. This rating indicates the fair condition of these banks. It also shows bank's weaknesses from fair to unacceptable in financial, operational and obedience. This rating also shows the susceptibility to unfavorable business situation and possibility to depreciate the condition of banks.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Banking companies that display important illustration of noncompliance with policies, legislation and instruction may fall in this rate (FDIC, 1997). The overall strength and financial capability of these banks are still such as to make failure only a distant option. Small banks that are Summit bank and Samba bank have achieved composite rating of “4”. This rating indicates that these banks have serious financial weaknesses. Unless effectual action will be taken in-order to address these weaknesses these banks could face the hazard of insolvency. Banking and financial companies in this category require close supervision or special attention to execute a corrective action plan required to achieve long-term sustainable progression.

### **Conclusion**

This study has been initiated with the intention to fulfill the research objective that is; “*to evaluate the performance of banking sector in Pakistan by applying CAMELS approach*”. CAMELS rating and ranking framework has been used in this study. CAMELS framework is an internal supervisory rating and ranking system used for examination of the banks. CAMELS framework has been implemented to evaluate the performance of 22 sample banks that are listed at Karachi Stock Exchange (KSE). In order to accomplish this task, secondary data was collected from Securities and Exchange Commission of Pakistan, Financial Statement reports of State Bank of Pakistan and annual reports of the banks. Moreover, past studies in the field of banking industry and literature regarding CAMELS rating and ranking system were also used for the research. As CAMELS measurement system is an internal rating system and its results are not available to the general public except the supervisory bank and management of the bank can have the results. Therefore, all the ratios were calculated and interpreted by the researcher.

Once results were generated after extensive mathematical calculations, CAMELS rating systems was applied on 22 sample banks and it has been observed that almost all large banks are included on the top of the list that shows their better performance as compared to the small banks. The top 5 Banks are; Meezan bank, NBP, MCB, HBL and UBL. These are public sector banks of Pakistan except Meezan bank which is private sector bank. Only one small bank that is JS Bank is included in top 10 banks. Large banks showed better performance in all components of CAMELS rating system and are rated lower on the individual component ratings and finally they have lower total for component ratings and achieved top ranks.

Out of 22 sample banks none of the bank is able to achieve composite rating of ‘1’. However, a total of three sample banks have a composite rating of “2” including; Meezan bank, NBP and MCB. The bank rating indicates that these banks are sound and strong but may express humble weaknesses that are correctable. Furthermore, majority of banks are able to secure composite rating “3” due to the fair condition of these banks. It depicts bank’s weaknesses from fair to unsatisfactory in aspects like financial, operational and obedience. These are medium sized banks such as Askari Bank, BOP, Bank Al-Falah, Faysal bank, Habib Metropolitan, and Standard Chartered bank Limited. Results of the small banks such as bank islami Pakistan limited, BOK, JS Bank



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and NIB banks show complete difference in their results. Only two small banks that are Summit bank and Samba bank have achieved composite rating “4” which shows that these banks have a number of serious financial weaknesses and they require close supervisory concentration and a progressive plan of corrective action.

### **Recommendations**

We are proposing few specific recommendations to the State Bank of Pakistan (SBP) and Securities and Exchange Commission of Pakistan (SECP) that can facilitate these prestigious regulatory bodies in the process of policy development and implementation.

We recommend CAMELS rating and ranking system to be used as a regulatory supervisory rating system for the banking industry of Pakistan. Some large banks such as; MCB Bank, ABL, HBL, UBL and NBP avail the services of Moody's, JCR-VIS and PACRA credit rating agencies and pay high cost for it. It is strongly recommended that SBP should try and put some efforts to modify their own regulator's supervisory rating system. A rating system that can effectively estimate the performance of commercial banks and other affiliated financial institutions operating in banking industry of Pakistan. If not possible, then CAMELS Rating system is best. Security and Exchange Commission of Pakistan is required to critically evaluate procedures of national credit rating agencies such as CAMELS Rating, PACRA and JCR-VIS and bring them to the level of international standard.

### **Further research suggestions**

Further research in this field should take into account the following important aspects: Results of international rating agencies such as Standard & Poor's, Moody's and Fitch should also be compared for similarities with CAMELS or with any other supervisory rating systems implemented in different countries. For future research related with CAMELS rating system, it is suggested that it should also be implemented on other financial institutions as well such as investment banks, specialized banks and insurance companies.

The geographical boundaries of the future research should be expanded to four or five countries where CAMELS is the supervisory rating system and results should be compared afterwards. Future researches should also attempt to focus on examining the adoptability of CAMELS rating system in the context of Islamic banking system thereby presenting a very productive addition in research pertaining to domain of banking and finance.

### **References**

Ahmad, S., and Nafees, B., (2012). Profitability of Domestic Pakistan Banks: panel data evidence for the period 2001-2010. *Journal of Business Studies Quarterly*. 4(1), 149.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Atikogullari, (2009). An Analysis of Northern Cyprus banking sector in the post - 2001 period Through the CAMEL approach. *International Research Journal of Finance and Economics*. 32, 212-229.

Babar, H. Z., and Zeb, G., (2011). Does CAMELS system provide similar rating as PACRA system in assessing the performance of banks in Pakistan? Master Thesis, *Umea School of Business*.

Baral, J., (2005). Health Check-up of Commercial Banks in the Framework of CAMEL: A Case Study of Joint Venture Banks in Nepal. *The Journal of Nepalese Business Studies*. II(1).

Barth, M.E., Beaver, W.H., and Landsman, W.R., (1999). Relative valuation roles of equity book value and net income as a function of financial health. *Journal of Accounting and Economics*. 1–34.

Bawa, N. (2017). Comparative Performance Analysis of Nationalized Banks: A CAMEL Model Analysis. *IUP Journal of Bank Management*, 16(4), 34–49.

Cole, R. A., and Gunther, J., (1995). A CAMEL Rating's Shelf Life. Available at SSRN: <http://ssrn.com/abstract=1293504>

Dang, U., (2011). The CAMEL rating system in banking supervision. A case study. *Arcada University of Applied Sciences, International Business*.

Dincer, H., Gencer, G., Orhan, N., and Sahinbas, K., (2011). A Performance Evaluation of the Turkish Banking Sector after the Global Crisis via CAMELS Ratios. *Science Direct. Procedia Social and Behavioral Sciences*. 24, 1530–1545.

Federal Deposit Insurance Corporation. FDIC Law, Regulations, Related Acts. 1997. <http://www.fdic.gov/regulations/laws/federal/UFIR.pdf>

Gerschenkron, A., (1962). *Economic Backwardness in Historical Perspective*. Cambridge:

Gebba, T. K., and Ahmed I. E., (2013). The Performance of Privatized Financial Institutions in Egypt: The Case of Alexandria Bank. *Journal of Applied Finance & Banking*, 3(4), 245-269.

Iqbal, M. J., (2012). Banking sector's performance in Bangladesh-an application of selected CAMELS Ratio. *Asian Institute of Technology School of Management Thailand*.

Kouser, R., Aamir, M., and Mevish, H., (2011). CAMEL Analysis for Islamic and conventional banks: comparative study from Pakistan. *Economics and Finance Review*. 1(10), 55– 64.

Keovongvichith, P., (2012). An Analysis of the Recent Financial Performance of the Laotian Banking Sector during 2005-2010. *International Journal of Economics and Finance*. 4(4).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Mehta A. (2012). Financial Performance of UAE Banking Sector- A Comparison of before and during Crisis Ratios. *International Journal of Trade, Economics and Finance*. 3(5).

Mishra, A. K. Gadhia, J. N. Kar, B. P. Patra, B. and Anand, S. (2013). Are Private Sector Banks More Sound and Efficient than Public Sector Banks? Assessments Based on Camel and Data Envelopment Analysis Approaches. *Research Journal of Recent Sciences*\_\_ ISSN, 2277- 2502.

Nimalathasan, B., (2008). A comparative study of financial performance of banking sector in Bangladesh – An application of CAMELS rating. *Annals of University of Bucharest, Economic and Administrative Series*, 2: 141-152.

Prasad, K., Ravinder G., and Reddy D. M., (2011). A CAMEL model analysis of public & private sector banks in India. *Journal on Banking Financial services & Insurance research*, 1(5).

REDDY, K., (2012). Relative performance of commercial banks in india using camel approach. *International Journal of Multidisciplinary Research*, 2(3).

Roman, A., and Camelia, A., (2013). Analysing the Financial Soundness of the Commercial Banks in Romania: An Approach Based on the Camels Framework. *Science Direct. Procedia Economics and Finance* 6, 703–712.

Sangmi, M., and Nazir. T., (2010). Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model. *Pakistan Journal of Commerce & Social Sciences*. 4(1), 40-55.

Saltzman, S.B., and Salinger, D., (1998). The ACCION CAMEL. Technical Note. <http://www.mixmarket.org/sites/default/files/medialibrary/10011.150/CAMEL.pdf>.

SBP 2006. *Banking System Review*. Financial Stability Department, State Bank of Pakistan. Karachi.

SBP, *Financial Sector Assessment 2006-2009*. Karachi. Retrieved from; <http://www.sbp.org.pk/departments/stats/FSA-2006-09> (F).pdf.

SBP, *Financial Sector Assessment 2008-2012*. Karachi. Retrieved from; <http://www.sbp.org.pk/departments/stats/FSA-2008-12%20.pdf>.

SBP 2012. *Statistics on Scheduled Banks in Pakistan*.

State Bank of Pakistan Annual Report FY01; chapter 6, *Banking System*.

Shaddady, A. and Moore, T. (2019), "Investigation of the effects of financial regulation and supervision on bank stability: The application of CAMELS-DEA to quantile regressions," *Journal of International Financial Markets, Institutions and Money*, Elsevier, vol. 58(C), pages 96-116.

State Bank of Pakistan [(1999), (2000), (2001), (2002), (2003), (2004), (2005)]. *Financial Sector Assessment 1999-2000*. Karachi. retrieved from: <http://www.sbp.org.pk/publications/fsa.htm>.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Suresh, Paul (2010), *Management of Banking and Financial Services*. SECOND EDITION. pg 64-65.

WIRNKAR, A. D., and TANKO, M., (2008). CAMEL(S) and banks performance evaluation: the way forward. *Social Science Research Network*. <http://ssrn.com/abstract=1150968>.

## APENDIX A

### List of sample Banks

Table represents sample banks which are listed at Karachi Stock Exchange (KSE).

Bank Name	Symbol	Branches	Shares (mn)	Year of Listing
Allied Bank Limited	ABL	806	1040.98	2005
Askari Bank Limited	AKBL	205	813.07	1992
Bank Al Falah Limited	BAFL	378	1349.16	2004
Bank Al Habib Limited	BAHL	277	1010.39	1992
Bank Islami Pakistan Ltd	BIPL	102	527.97	2006
Bank of Punjab	BOP	306	528.80	1991
KASB Bank Limited	KASBB	105	1950.86	1995
Bank of Khyber	BOK	50	900.26	2006
Faysal Bank Limited	FABL	225	927.35	1995
Habib Bank Limited	HBL	1459	1333.50	1992
Meezan Bank Limited	MEBL	310	1002.74	2002
National Bank Of Pakistan	NBP	1267	2127.51	2000
Habib Metropolitan Bank	HMB	135	1047.83	2007
MCB Bank Limited	MCB	1132	1011.85	1992
NIB Bank Limited	NIB	178	10302.85	2003
JS Bank Limited	JSBL	126	1072.46	2007
Summit Bank Limited	SMBL	76	1077.98	2008
Samba Bank Limited	SBL	28	808.24	2003
Silk Bank Limited	SILK	85	2671.60	2005
Soneri Bank Limited	SNBL	233	1102.46	1995
Standard Chartered Bank	SCBPL	162	3871.58	2007
United Bank Limited	UBL	1106	1224.18	1992

Source: Securities Exchange Commission of Pakistan (SECP) and State Bank of Pakistan (SBP).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Corporate Governance is Far Away to Rescue Whistle-Blowers: Grand Challenge of 21st Century**

Dr. Tehmina Fiaz Qazi

University of the Punjab, Lahore

Dr. Abdul Aziz Khan Niazi

University of Engineering and Technology, Kala Shah Kaku, Pakistan

Ifra Aziz Khan Niazi

University of Central Punjab, Lahore

*“It still a challenge for the advocates of corporate governance to protect the whistle blowers in true letter and spirit”*

Over years of experience as student, teachers and/or practitioners, we have learnt that whistle blowing (uncovering, disclosing and/or unveiling the wrong doings in/at corporations) is highly desired but an extremely difficult and rare task (Dyck, Morse & Zingales, 2010). The champions of corporate governance continually used to encourage the stakeholders for whistle blowing on wrong doings (Nisar et al., 2019; Nekovee & Pinto, 2019; Nayir & Herzig, 2012). But, their this desire, they want to fulfill without any effective framework for protection of the whistle blowers. The champions of corporate governance persuade the stakeholders to unearth and/or disclose/report all wrong doings and they pretend it as duty/responsibility of the concerned person. But very unfortunately, they press it on one side that is the side of whistle blower and not on the management side to protect the whistle blowers.

By scanning the laws of the land of different countries, one could hardly find any proviso or provision about protection of whistle blowing. The laws, codes, principles or rules and regulations of corporate governance runs into thousand and millions of pages at almost all the four levels that is international, national, sectorial and organizational levels, but hardly any practicable provision can be found for protection of whistle blowers. History speaks that the whistle blowers are victimized in wide variety of ways that could not be even in the back of the minds of the champions of the corporate governance (Regh et al., 2008).

There are several ways of victimization i.e.

Push to resign from the job,

asking to resign,

involving in prosecution,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

asking to prove it at law,

family victimization,

demotion,

not inviting in important jobs/decisions,

denying benefits,

accusation of poor performance,

mocking,

ostracizing,

isolating,

exclusion from meetings or trainings,

reduced salary,

increased working hours,

harassment,

lost opportunities of rehiring,

threats (Marwaha, 2017; Richardson, 2022; Uys, 2022; Dadaboyev & Baek, 2022).

Admittedly, there are certain provisions written in the laws and/or codes of corporate governance for protection of the whistle blowers but remember there is difference between saying, writing in laws as some proviso, possibilities of invocation and actually protecting the whistle blowers (Schultz and Harutyunyan, 2015; Niazi, et al. 2020; Elletta and Terry, 2000; Jill, and Kenneth, 2003). ***It still a challenge for the advocates of corporate governance to protect the whistle blowers in true letter and spirit.*** The contemporary researchers may explore cross sections of law-cum-digitalization (Olesen, 2022).

## References

Dadaboyev, S. M. U., & Baek, Y. (2022). Organizational misbehaviors: construct review and hierarchical reflective model. *Management Research: Journal of the Iberoamerican Academy of Management*, (ahead-of-print).

Dyck, A., Morse, A., & Zingales, L. (2010). Who blows the whistle on corporate fraud? *The Journal of Finance*, 65(6), 2213-2253.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Elletta, S. C. and Terry, M. D. (2000). The state of state whistleblower protection. *American Business Law Journal*, 38(1), 99-175.

Jill, E. F. and Kenneth, M. R. (2003). Lessons from Enron, how did corporate and securities law fail? is there a role for lawyers in preventing future Enrons? *Villanova Law Review*, 48, 1097-1103.

Marwaha, K. (2017). Corporate governance and whistleblowing in India: promises or reality? *International Journal of Law and Management*, 59(3), 430-441.

Nayir, D. Z., & Herzig, C. (2012). Value orientations as determinants of preference for external and anonymous whistleblowing. *Journal of Business Ethics*, 107(2), 197-213.

Nekovee, M., & Pinto, J. (2019). Modeling the impact of organization structure and whistleblowers on intra-organizational corruption contagion. *Physica A: Statistical Mechanics and its Applications*, 522, 339-349.

Niazi, A. A. K., Qazi, T. F., Ali, I., & Ahmad, R. (2020). Prioritizing determinants of effective whistle blowing (WB): Interpretative structural modeling approach. *International Journal of Law and Management*, 62(3), 213-230.

Nisar, T. M., Prabhakar, G., & Torchia, M. (2019). Whistleblowing: When do employees act to ‘blow the whistle’?. *Organizational Dynamics*, 44-49.

Olesen, T. (2022). Whistleblowing in a Time of Digital (in) visibility: Towards a Sociology of ‘grey areas’. *Information, Communication & Society*, 25(2), 295-310.

Regh, M. T., Miceli, M. P., Near, J.P., and van Scotter, J.R. (2008), Antecedents and Outcomes of Retaliation against Whistleblowers: Gender Differences and power relationships, *Organization Science*, 19(2), 221-241.

Richardson, B. K. (2022). “Death Threats don’t Just Affect You, They Affect Your Family”: Investigating the Impact of Whistleblowing on Family Identity. *Management Communication Quarterly*, 08933189221108349.

Schultz, D. and Harutyunyan, K. (2015). Combating corruption: the development of whistleblowing laws in the United States, Europe, and Armenia. *International Comparative Jurisprudence*, 1(2), 87-97.

Uys, T. (2022). What Constitutes Whistleblowing?. In *Whistleblowing and the Sociological Imagination* (pp. 25-47). Palgrave Macmillan, New York.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Investigating the impact of E-Customer Relationship Management (E-CRM) towards customer satisfaction in banking sector of Pakistan**

Dr. Samar Rahi

University of the Punjab, Lahore

Syeda Alina Zahra

University of the Punjab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore

Dr. Talat Islam

University of the Punjab, Lahore

**Abstract**

Nowadays, businesses around the world are striving to stay up with the most recent trend of implementing Information Technology (IT) techniques like Electronic Customer Relationship Management (E-CRM). This study is carried out in Pakistan's banking sector and the main goal of this study is to evaluate the effectiveness of the DeLone and McLean IS Success model in managing E-CRM in the banking sector of Pakistan. This study will help banking sector to develop strategies, introducing customized services, transaction privacy, problem-solving and online feedback which could enhance customer satisfaction. Data will be collected from customers of banks. Data will be examined using structural equation modeling (SEM) through PLS. Data will be collected through Structured questionnaires. This study is significant as it examines the role of DeLone and McLean IS success model and E-CRM, towards customer satisfaction in banking sector of Pakistan.

**Keywords:** DC-MC model, ECRM, customer satisfaction, customized services, transaction privacy, problem-solving, online feedback

**Introduction**

Customers are an integral part of every business, and without them, there would be no business. As a result, the company's success can develop a close relationship with its clients (Cambrá-Fierro, Centeno, Olavarria, & Vazquez-Carrasco, 2017). In numerous investigations, Customer relationship management (CRM) initiatives have a favorable effect on the expansion of the organization, the degree of user satisfaction (Cooil, Keiningham, Aksoy, & Hsu, 2007), system quality (Hsiao-Hui Wang & Chen, 2011), access to knowledge (Subirà Masana, 2017), security and loyalty have been noted. Due to the rapid expansion of Internet-based services and electronic commerce, the Internet now serves as a platform for customer relationship management (CRM) functions to be delivered via e-customer relationship management (E-CRM), which emphasizes customer and company interactions over the internet. E-customer relationship management features make e-commerce successful by offering personalized, value-added services and up-to-date information (Papaioannou, Kariofyllas, Koronios, Kourtesopoulou, & Kriemadis, 2014). An effective instrument for managing online consumer relations is the Internet (Oumar, Mang'Unyi, Govender, Rajkaran, & Society, 2017). The field of research known as electronic customer relationship management (E-CRM), which is still relatively new, and is becoming a recognized



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

component of digital technology started to blur the distinction between data platforms (Abdulfattah, 2012). E-customer relationship management is one of the most potent and successful information system applications because, to produce noticeably higher quality customer assistance and customer maintenance, it includes equipment, programming, techniques, tools, and a dedication to management methods. Online marketing has included e-customer relationship management, which is comparable to traditional customer relationship management software but uses electronic channels and electronic companies to create an organization's e-customer relationship management strategy. E-customer relationship management is regarded as a stimulus since it relates to online technology that offers clients personalized/customized goods and services over the internet or other electronic contact points. Client behavior while implementing E-customer relationship management techniques is considered a response to a customer's satisfaction. Managing e-customer relationship management by carefully analyzing the DeLone and McLean IS success model since it has characteristics that account for the psychological and mental states of the users. E-customer relationship management is a tool for acquiring and retaining clients, upholding a particular and meaningful relationship with customers and the company, and cultivating client loyalty through satisfying interactions and memorable experiences. (Mulyono & Situmorang, 2018). This study utilizes the DeLone and McLean model as its theoretical framework to order to investigate E-customer relationship management components that influence customer satisfaction and ultimately have an impact on the performance of e-customer relationship management (E-CRM).

### **Literature Review**

The explanation of each variable concerning the relationship that exists between them is provided in this portion of the analysis of previous research.

### **Customer Satisfaction and E-Customer Relationship Management**

By using several electronic contact points, including email accounts and internet browsers, firms can create long-lasting, mutually beneficial relationships with their customers online. This is what is meant by the term "e-customer relationship management." (Liu, Chuang, Huang, & Studies, 2012). E-customer relationship management's main target is to assist businesses in becoming more efficient in creating and managing their customer connections, providing better customer services, and keeping consumers to boost profitability (Adlin, Ferdiana, & Fauziati, 2019). This goal is in addition to helping businesses in the marketing industry. The goal of traditional customer relationship management is to find, attract, and keep lucrative customers over time by fostering enduring connections with them. E-customer relationship management is utilized when these activities are provided online (Hendriyani & Raharja, 2018). (Upadhyaya & Reviews, 2020). Customer satisfaction is defined as the "judgment that a product/service feature(s) or the product or service(s) themselves provided (or are giving) a pleasurable level of consumption-related fulfillment, including levels of under-over fulfillment." When customers are pleased with the services their internet companies deliver, the relationship between the two parties is strengthened, which ultimately leads to good word-of-mouth advertising. Consequently, effective e-customer relationship management (E-CRM) service deployment



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

results in customer satisfaction. However, prior research demonstrated a beneficial connection between e-customer relationship management (E-CRM) and customer happiness (Mulyono & Situmorang, 2018). According to the research, there is no relationship between customer satisfaction and e-customer relationship management (E-CRM), but it does influence satisfaction levels. (Tariq, Jamil, Ahmad, Ramayah, & Tecnologia, 2019). Consequently, it is vital to research how customer satisfaction and e-customer relationship management (E-CRM) are related.

**H1:** Customer satisfaction is a positive relationship with e-customer relationship management.

### **Customized Services and Customer Satisfaction**

Customized services have always benefited businesses in their efforts to keep their customers satisfied. Modifying, personalizing, and adapting things to suit individual preferences is the process of customization (Wang, Lin, & Shao, 2022). Individual preferences are met via customized service, which also increases brand affinity and fosters loyalty. Customers are satisfied when they discover that goods or services match or beyond their high expectations (Ladhari, Souiden, Dufour, & Services, 2017). Specifically inspire expectations that they will deliver on their promises, which then influence buying intentions (Taylor & Baker, 1994).

**H2:** Customized services are a positive relationship with customer satisfaction.

### **Transaction Privacy and Customer Satisfaction**

It has been made the case that transaction security or privacy is currently a significant occurrence in this expanding commercial environment (Abdulfattah, 2012). Customers hesitate to conduct business online because they are concerned about becoming a victim of cybercrime, which is becoming more and more of a hazard. Privacy and security of transactions are described as the "level to which the security mechanism protects consumer transactions." Only when consumers feel secure doing so and are confident that their personal information is protected will they engage in electronic transactions. Customers that use E-CRM solutions to accomplish their online transactions might feel more secure. Due to these reasons, website designers must convince customers that doing business online is simple, secure, and dependable (Alhaiou, 2011). Additionally, they generate a strong connection between transaction privacy and client happiness.

**H3:** Transaction privacy is a positive relationship with customer satisfaction.

### **Problem Solving and Customer Satisfaction**

Visual merchandising representatives are frequently educated to respond quickly and truthfully to customer problems, complaints, returns, and exchanges because how they are handled frequently affects how customers perceive the quality of consumer service. As a result of feeling restrained, clients who have unfulfilled quality expectations may also experience anger and even guilt. (Memon, Rizvi, Syed, & Management, 2017) The creation, sharing, and transfer of information are fundamentally dependent on a friendly knowledge culture in Pakistani banks. Such an environment encourages and supports interpersonal interaction to promote knowledge sharing and assist innovative problem-solving. It fosters a direct association between problem-solving and client satisfaction

**H4:** Problem-solving is a positive relationship with Customer Satisfaction.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Online Feedback and Customer Satisfaction**

Through online reviews of goods or services, customers can contact their banks more readily. A customer service agent enables customers to contact their banks online and give feedback on their contacts with the banks, whether they had a good or bad experience. It also offers remedies for any problems that might have arisen during transactions (Khan & Khawaja, 2013). (Abdulfattah, 2012) Online feedback is classified as "the extent to which customers can offer comments on any of the company's goods or services." When banks respect their customers and use their reviews or remarks to improve their services, they gain their loyalty (Mulyono & Situmorang, 2018). Customers can share their thoughts on social media regarding changes to the conditions under which they can use a particular good or service, and banks can provide justifications for those changes (Parusheva, 2017). It establishes a beneficial connection between online reviews and client happiness.

**H5:** Online feedback is a positive relationship with Customer Satisfaction.

### **Information Quality and Customer Satisfaction**

A system that provides users with timely, precise, accurate, and clear information to fulfill tasks is referred to as having high information quality. The degree to which Pakistani internet banking users want to continue using the services is significantly influenced by the information's quality. Prior research has shown a positive correlation between the fineness of the information and consumers' willingness to use online platforms (S. Rahi, Ghani, & Management, 2019). Any business can gain from having high-quality information, but the TQM process, which focuses on the role that quality information systems play in the collection, processing, storage, and transmission of data and information throughout the system, improving process management generally, is particularly crucial (Dhamija & Bag, 2020). And satisfied customers to provide the highest quality information while examining the MC-DC model.

**H6:** Information quality is a positive relationship with Customer Satisfaction.

### **System Quality and Customer Satisfaction**

The second most significant aspect in the DeLone and McLean information success model, system quality, determines whether a system can serve the current task. Performance, effectiveness, interface with other systems, ease, and responsiveness of the system are all included in this functionality (DeLone & McLean, 2003). An individual's assessment of a system's performance is used to gauge its quality. E-learning systems are judged on their quality based on both the technology that users have access to and the many software applications made for those purposes and requirements (Freeze, Alshare, Lane, & Wen, 2010). A perfect system might provide clients with outstanding outcomes and advantages (Manafi, Ghadimi, Ojaroudi, & Farhadi, 2013). (Jaiswal & Dhar, 2015) How well the system's features work depends on the customer's assessment of the system's quality, which is dependent on how they use the system.

**H7:** System quality is a positive relationship with Customer Satisfaction.

### **Service Quality and Customer Satisfaction**

A service is defined as an action performed to assist a customer. In light of this, service quality is defined as the difference between a service's actual performance and its expected performance. A service's level of quality is determined by how closely it lives up to customers' expectations. It





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

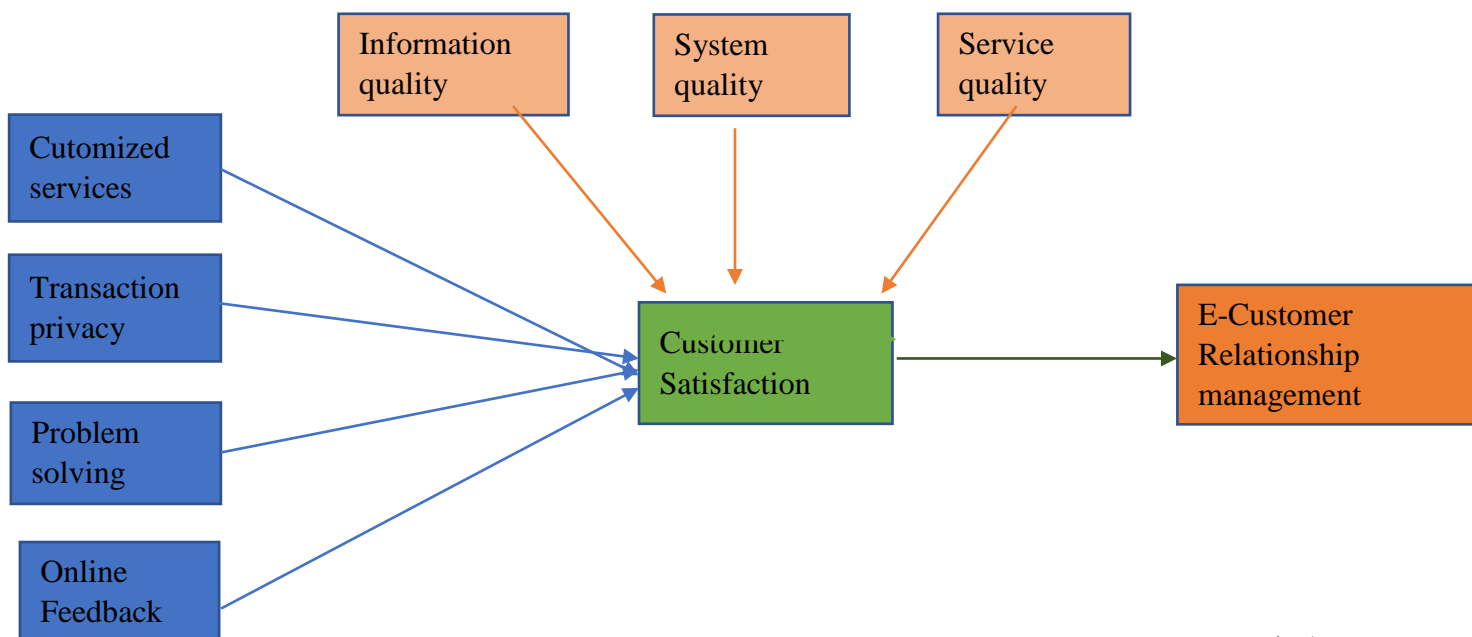
typically determines how a buyer will perceive a particular good or service. The brief descriptions of these dimensions are given below (Alnaser, Ghani, Rahi, Mansour, & Abed, 2017). One of the key factors in client satisfaction is service quality, which is one of the crucial elements that boost a service provider's competitiveness. Numerous studies have already examined the connection between service quality and customer satisfaction, and they have all shown that higher service quality levels are more likely to result in higher levels of customer satisfaction (Pooya, Khorasani, Ghouzhdi, Finance, & Management, 2020). Customer satisfaction and service quality are positively correlated as a result.

H8: Service Quality is a positive relationship with Customer Satisfaction.

**METHODOLOGY**

The paper is based on a primary research survey. The research method used for the study is quantitative, as data will be collected through a questionnaire. The study's target audience is made up of Pakistani customers who used online banking services. The sample size of the study is 200-300 respondents. The data will be analyzed through smart PLS software. For the study's data gathering, a convenient sampling technique was employed. A 10-point scale is used for the data collection procedure, with 1 indicating strongly disagree and 10 indicating strongly agree. the commitments and guidelines that govern strategy and performance in research (S. Rahi, Alghizzawi, et al., 2021). Examples of positivist patterns include the positivist paradigm, interpretative approaches, and the advocate paradigm (S. J. I. J. o. E. Rahi & Sciences, 2017). The positivist pattern, which this study will adhere to, holds that information may be discovered by observation and experimentation (S. Rahi, Abd Ghani, & Proceedings, 2018). Perhaps more effective for social skills is the optimism shape. This study will employ a deductive approach because, Instead of developing a new theory, we will test an existing one that researchers have previously generated. (S. Rahi, Khan, & Alghizzawi, 2021).

**Research Model**





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## CONCLUSION

It has been concluded that in several banking sectors worldwide, there is a considerable correlation between customer satisfaction and e-customer relationship management (E-CRM), but E-customer relationship management tools are rarely used in the banking sector of Pakistan. Survey results show that most customers are satisfied with online banking after researching and investigating customer behavior to determine how much they are satisfied with the E-CRM tool. So, given that the in both private and public banking sectors, we want to encourage our regular customers to engage in online IT activities, develop electronic customer relationship management with banks, and adapt to how they handle them in the implementation of electronic customer relationship management to enhance the performance of the banking sectors.

## References

- Abdulfattah, F. (2012). *The effect of electronic customer relationship on customer satisfaction a study in web banking in Saudi Arabia*. university of huddersfield,
- Adlin, F. N., Ferdiana, R., & Fauziati, S. (2019). *Current trend and literature on electronic CRM adoption review*. Paper presented at the Journal of Physics: Conference Series.
- Alhaiou, T. A. (2011). *A study on the relationship between E-CRM features and e-loyalty: The case in UK*. Brunel University Brunel Business School PhD Theses,
- Alnaser, F., Ghani, M., Rahi, S., Mansour, M., & Abed, H. (2017). Determinants of customer loyalty: the role of service quality, customer satisfaction and bank image of Islamic banks in Palestine. *Int J Econ Manag Sci*, 6(461), 2.
- Cambra-Fierro, J. J., Centeno, E., Olavarria, A., & Vazquez-Carrasco, R. J. J. o. S. M. (2017). Success factors in a CRM strategy: technology is not all. 25(4), 316-333.
- Cooil, B., Keiningham, T. L., Aksoy, L., & Hsu, M. J. J. o. m. (2007). A longitudinal analysis of customer satisfaction and share of wallet: Investigating the moderating effect of customer characteristics. 71(1), 67-83.
- DeLone, W. H., & McLean, E. R. J. J. o. m. i. s. (2003). The DeLone and McLean model of information systems success: a ten-year update. 19(4), 9-30.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Dhamija, P., & Bag, S. J. T. T. J. (2020). Role of artificial intelligence in operations environment: a review and bibliometric analysis.

Freeze, R. D., Alshare, K. A., Lane, P. L., & Wen, H. J. J. J. o. I. s. e. (2010). IS success model in e-learning context based on students' perceptions. *21*(2), 173-184.

Hendriyani, C., & Raharja, S. u. J. (2018). Analysis building customer engagement through e-CRM in the era of digital banking in Indonesia. *International Journal of Economic Policy in Emerging Economies*, *11*(5), 479-486.

Hsiao-Hui Wang, E., & Chen, C.-Y. (2011). System quality, user satisfaction, and perceived net benefits of mobile broadband services.

Jaiswal, N. K., & Dhar, R. L. J. I. j. o. h. m. (2015). Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *51*, 30-41.

Khan, M. B., & Khawaja, K. F. J. M.-E. J. o. S. R. (2013). The relationship of E-CRM, customer satisfaction and customer loyalty. The moderating role of Anxiety. *16*(4), 531-535.

Ladhari, R., Souiden, N., Dufour, B. J. J. o. R., & Services, C. (2017). The role of emotions in utilitarian service settings: The effects of emotional satisfaction on product perception and behavioral intentions. *34*, 10-18.

Liu, C.-C., Chuang, L.-m., Huang, C.-M. J. J. o. E., & Studies, B. (2012). A study of the impact of the E-CRM perspective on customer satisfaction and customer loyalty-exemplified by bank Sinopac. *4*(8), 467-476.

Manafi, H., Ghadimi, N., Ojaroudi, M., & Farhadi, P. J. E. i. E. (2013). Optimal placement of distributed generations in radial distribution systems using various PSO and DE algorithms. *19*(10), 53-57.

Memon, S. B., Rizvi, W. H., Syed, S. J. K., & Management, P. (2017). Operationalization of knowledge management in knowledge-intensive Pakistani banks: a qualitative case study. *1*(1), 36.

Mulyono, H., & Situmorang, S. H. J. A. j. o. E. s. (2018). E-CRM and loyalty: A mediation Effect of Customer Experience and satisfaction in online transportation of Indonesia. *4*(3), 96-105.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Oumar, T. K., Mang'Unyi, E. E., Govender, K. K., Rajkaran, S. J. M., & Society, M. C. f. t. K.

(2017). Exploring the e-CRM–e-customer-e-loyalty nexus: a Kenyan commercial bank case study. *12*(4), 674-696.

Papaoiannou, A., Kariofyllas, C., Koronios, K., Kourtesopoulou, A., & Kriemadis, A. J. J. o. R. S.-E. I. (2014). Exploring E-CRM application: The case of tourism and hospitality industry in greece. *4*(1), 75-84.

Parusheva, S. J. И. и. (2017). Social Media Banking Models: A case study of a practical implementation in banking sector. (3), 125-141.

Pooya, A., Khorasani, M. A., Ghoushdi, S. G. J. I. J. o. I., Finance, M. E., & Management. (2020). Investigating the effect of perceived quality of self-service banking on customer satisfaction.

Rahi, S., Abd Ghani, M. J. E., & Proceedings, S. D. B. o. (2018). Investigating the role of e-service quality and brand image in internet banking acceptance context with structural equation modeling (SEM-PLS). 427-442.

Rahi, S., Alghizzawi, M., Ahmad, S., Khan, M. M., Ngah, A. H. J. I. J. o. E., & Systems. (2021). Does employee readiness to change impact organization change implementation? Empirical evidence from emerging economy.

Rahi, S., Ghani, M. A. J. I. J. o. A., & Management, I. (2019). Integration of DeLone and McLean and self-determination theory in internet banking continuance intention context.

Rahi, S., Khan, M. M., & Alghizzawi, M. J. E. I. S. (2021). Factors influencing the adoption of telemedicine health services during COVID-19 pandemic crisis: an integrative research model. *15*(6), 769-793.

Rahi, S. J. I. J. o. E., & Sciences, M. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *6*(2), 1-5.

Subirà Masana, G. (2017). *Implementing a CRM in a gear reducers manufacturing and assembling company*. Universitat Politècnica de Catalunya,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Tariq, M., Jamil, A., Ahmad, M. S., Ramayah, T. J. R. G., & Tecnologia. (2019). Modeling the effectiveness of electronic customer relationship management (E-CRM) systems: empirical evidence from Pakistan. 77-100.

Taylor, S. A., & Baker, T. L. J. J. o. r. (1994). An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions. 70(2), 163-178.

Upadhyaya, M. J. H., & Reviews, S. S. (2020). Analysis of E-CRM, service quality and brand trust relationship with student satisfaction. 8(1), 227-232.

Wang, X., Lin, X., & Shao, B. J. I. J. o. I. M. (2022). How does artificial intelligence create business agility? Evidence from chatbots. 66, 102535.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Stylo Shoes: A Case Study of its Success through Creativity, Innovation and Quality Control**

Aimun Khawaja

University of Education, Lahore

Dr. Muhammad Bilal Ahmad

University of Education, Lahore

**Abstract**

Today in Pakistan different companies are fulfilling the needs of its customers including men's-footwear, women's-footwear and children's-footwear. In Pakistan, the footwear industry has provided many employment opportunities. This paper highlights the problems faced by the Stylo when they step in footwear industry in 1974 and identified the opportunity of becoming an entrepreneur. The owners of the Stylo worked day and night and currently their 92 shoe stores are operating across the country. This case study has proposed five best management practices for Stylo that can be used to integrate quality initiatives into the strategic management.

**Key words:** Stylo, Strategy, Culture, Management practices

**Introduction**

Today Shoes are sold through shoe stores, but there are different kinds of stores which sell not only shoes but also expanding their business, in related and unrelated market segments. In Pakistan, Stylo is one of the leading shoes retailers selling shoes in the market and enjoying the 23% of market share. Stylo started its journey from a "Phatta (a stall)" occupying a space of 10'x12' square foot in 1974, by Mr. MuhammadAzhar Siddiqui who was a salesman in Anarkali, Lahore, who dreamt of starting in his own business in Lahore. He took an initiative and started his business with just 174 Pakistani rupees in his hands. He started his shop with the name of "BanoChappal Store" in Anarkali. Then, his eldest son Mr. Mazhar Hussain Siddiqui, currently working as Directorof Stylo, joined his father's business to bring some innovation to the business. They wanted to be self-sufficient and worked as an Entrepreneur. In 1984, they changed the name of the shop from "BanoChappal Store" to Stylo where his younger brother Mr. Javed Hussain Siddiqui (COO Stylo) joined the business in 1986, in order to take the business to newer heights, in comparison to their rivals including Ehsan Chappal Store (ECS), Bata & Service. By seeing the marketing activity at Liberty market a shop was opened in the center of the Liberty market which gave a blow to the business. Currently there is only one Headquarter of Stylo located in the center of Quaid-e-Azam Industrial State in Lahore, where there are 92 shoe stores are operating across the country and with the help of more than 350 vendors they are satisfying the needs of its customers. The important factor which contributed in the success of this retail store includes:

Islamic Culture, Norms and Values, Financial Matters dealt on Cash basis, Innovation

Quality Control, Employees Commitment and Dedication, Customer Care, Employees Empowerment



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Islamic Culture**

According to Abeer Khalid who is working at Stylo as “Learning and Development Manager”, the management of Stylo emphasize on Islamic Values to be embedded in their organization as they are raised and being brought up in the same culture at their home. They practice these values at the work place as well. They management staff offer their Juma Prayers together in the mosque being built inside the Head office located in Lahore. Similarly, at the stores branch managers and all the sales personnel’s offered prayers inside the store. Moreover talking about the financial matters and expansion of the business, it has been a success according to the “Learning and Development Manager” as all the transactions have been made on purely cash basis, no interest have taken from the bank as well as the company holds no “saving account” as well. The company has not taken any loan from the bank as they charge “Interest” which is against the teachings of Holy Quran and Sunnah.

### **Innovation**

Mr. Muhammad Azhar Siddiqui had started his business from a “stall” in Anarkali and after passage of time the stall took the shape of a store, then it was opened in ‘Liberty Market’ which is one of the aristocratic markets of Lahore. Today due to its innovative designs they are leading the market with a growth rate of 23% according to Pakistan Footwear Manufacturers Association. The designs they have launched are being copied by their competitors. In order to capture the attention of its customers Stylo with the help of proactive approach prepare the “designs of New Arrivals” before the arrival of season (winters and summers). They encourage employees to take initiative and come up with innovative and novel ideas which add value to the business.

### **Quality Control**

The quality at Stylo has been maintained by all the employees at each department as KPI’s are added in Performance appraisals. Similarly they have supervisory control over the supply chain department by the Quality Control Cell which comprises of Quality Assurance and Quality Control. The former look into the matters related to raw material being used at the warehouses and by the vendors. The detailed inspection of the product took place at each and every step till they get the finished product. The later (Quality Control) deals with vendors of Stylo, as it has more than 350 vendors who worked day and night to deliver the quality product in the market. The supervisory control has been done by the Procurement Department and Quality Control Cell in order to ensure Timely delivery and quality. Quality Control Cell ensures the quality product to be Provided To Its Customers And For This No Compromise Has Been Done By The Company.

### **Employees Commitment And Dedication**

In order to make the employees more committed and dedicated, Stylo provides subsidized food to its employees. Career orientation leading to career progress is also given to employees for this purpose On Job Training has been provided to the employees to make them more skilled. To make the employees more committed to their work Timely promotions have been offered to the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

employees. As it is already mentioned that Stylo emphasize on the propagation of Islamic Values, so in order to comply with the sharia laws, an insurance system has been devised for the employees at the company. Performance appraisal has been done on monthly basis, rewards are being offered to the employees so that they can work with full devotion at work. Increments and promotions are dependent on their performance. The feedback of employees provides them a direction to perform in order to excel in their career. The success factor behind Stylo is not only the dedication of its owners but the devotion of its employees also contributed in order to make the company a big Hit.

### **Employees Empowerment**

Stylo is indulged in retail business; they have more than 1500 employees all over Pakistan. The Human Resource department creates value by engaging the employees in activities that produce the employee behavior that the company needs to achieve its strategic goals. This practice as a result empowers the employees to excel. The record of each employee is maintained on Oracle. Employees are empowered when organizations show trust and delegate authority with the trickledown effect.

### **Customer Care**

A research section is working in the Head office that keeping in view the feedback received from the customers by conducting focus groups across the country generates results. This focus group is based on the basis of membership acquired by the customers from the outlets. The feedback helps the research section to accomplish research goals in making innovative new arrivals for every season using a proactive approach. It is the norm of Stylo to be innovative in order to cater the need of its customers.

### **Present Status**

Today Stylo have 92 outlets across Pakistan with 1500 work force including salesmen working in different branches. The shoe shop which started its journey from a stall in Lahore is now become a brand with the name “Stylo shoes” that deals in women and children’s foot wear , and demonstrated its strong presence in Lahore, Karachi and Islamabad. Today it is present in 30 cities across the country and this excellence has been attained because Stylo has opted the proactive strategy of planning, training the workforce and provided compensation in the form of facilities and fringe benefits; in return, they get the right person for the right job. The dream which the founder of Stylo have seen about 41 years ago to become the most selling shoe outlet in Lahore, then this dream was lead forward by his four sons to make it a success across Pakistan, they want to create a panic in big brothers like leading brand shoe industry BATA. They have adopted the retail-chain strategy which is managed by the branch managers at the outlets. The modern concepts of doing business were applied to a family owned business, which open horizons to make it a success in other parts of the country. The business of Stylo got expansion when Stylo started offering apparels, ladies hand-bags and assorted jewelry to its customer at its outlets.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Management Practices**

Stylo is indulged in retail business; they have more than 1500 employees all over Pakistan. The Human Resource department creates value by engaging the employees in activities that produce the employee behavior that the company needs to achieve its strategic goals and the mission of Stylo is to become a 7 billion company by the year 2016, with 130 outlets across the country, and this can be achieved only by motivating HR and by competitive corporate practices it's all about strategic HR.

### **Owners Work With The Employees**

The vision of the Stylo is to become a first Islamic and Pakistani brand which causes stir across the globe. In order to fulfill this dream the owners of the Stylo worked day and night and developed personal relationship with the employees by showing concern for their people (Employees). They minimize the communication gap between departments and emphasis on increasing the sharing between departments. They are not only concerned with the timely delivery of product in the market. The conflicts of different department within head office and the problems arising at outlets are dealt with the special care as the owners and managers reach to a win-win situation by developing cordial relations with the employees. Special meetings are arranged to resolve the problems which ensures confidence in the minds of employees to work efficiently and effectively.

### **Owners Work Harder Than Employees**

The Stylo began its journey when founder wanted to make its both ends meet at his home. Today he is working day and night, visits all the outlets across country to see the things himself and to set an example for its employees. The owners of the business personally visit all the branches to present an excellent model of good management practices for its workers. The basic purpose behind this hard work is not only to achieve its mission of becoming a 7 billion company with 130 outlets and three International existences with highly competitive and motivated human resource but also the Director, Mr. Mazhar Hussain Siddiqui opines that he joined his father's business to earn their livelihood, today he is responsible for the living of all those 1500 employees working under the roof of Stylo.

### **On Job Training**

Stylo recruit the employees using proper selection process. They trained the employees according to their working environment. They provide compensation and facilities for which Stylo has adopted different policies like: Catering the needs of their employees, Salary structure, Performance management, Training and development plans at Stylo Outlets. Strategic HR planning at Stylo helps in identifying the difference between "Where we are today" and "Where we want to be". This Strategic planning stimulates the critical thinking among employees, in order to increase the working potential among employees. The HR department is solely responsible for hiring and firing of employees. On Job Trainings have been conducted in Stylo so that the employees can participate in developing the mission of the company. Trainings have been provided to make the people so that they can perform their job properly under the supervision of his head. Incentives are being given to the high achievers of the month.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Retention Of Employees Via Motivation**

Employees are the most valuable asset of any business across the world. In order to compete in the market it is very necessary to retain the skilled employee. But the policies and effective monitoring and evaluation program of the Stylo provides an enabling environment by motivating the employees to achieve their goals, which in turn helps in reducing the turnover rate.

In addition, to make their employees more focus and more task oriented they have provided them the facilities and one of which is day care facility at Stylo. Moreover, the critical positions are evaluated on monthly and quarterly basis for instance, Social Media Manager. According to the information provided by Mr. Abeer Khalid “Learning and Development Manager”, incentives and fringe benefits are given to the employees in order to retain the skilled worker. The salesmen at outlets are hired from within the premises of the city i.e. where the outlet is located and is approachable to the salesman from his home.

### **Equal Opportunity Employer**

Equal employment opportunity means to avoid job discrimination complaints. Provide equal opportunities to both genders without any race, color, religion, and culture and ethnicity distinction. At Stylo equal opportunity is available to all of the people when they are hired, compensated, trained or promoted. No differentiation is made on the basis of gender, cast etc. Physically disable persons are also recruited at the head office and outlets, for instance, they have hired disable person as their cashier.

### **Suggested Model For Stylo**

Large Organizations, in contrast, to small organizations use different concepts of strategic planning and strategic management model. There are various reasons behind the non-implementation of these models in small organizations as the small businesses are usually family-owned and they tend to focus on day-to-day operations. Moreover, they do not have much revenue to invest on training of employees. Large organization have specific strategic planning departments, they have more money to spend on different activities including training of their employees. This case study has proposed five best management practices for Stylo that can be used to integrate quality initiatives into the strategic management.

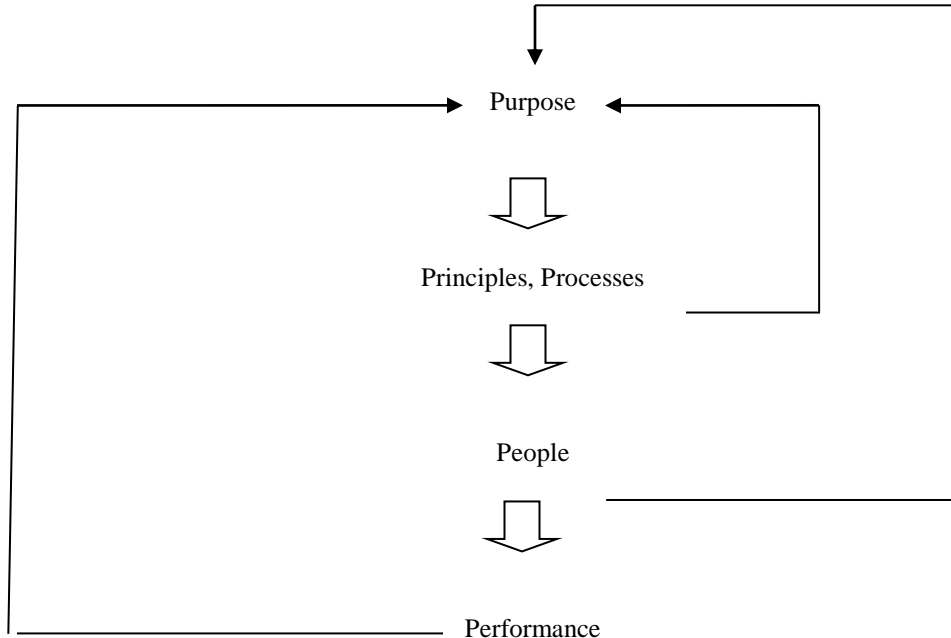
### **Strategic Management Model**

Top management of Stylo should understand and utilize the Strategic management Model presented by Pryor, White and Toombs (1998). The model includes a SWOT analysis based on analyzing the firm’s internal strengths and weaknesses and its external threats and opportunities. It also includes the mission, vision, values, goals and objectives, strategy formulation and its implementation. Moreover it gives a clear insight into the success factors leading towards the competitive advantage.



**5p’s Model**

Leaders of small businesses can use the Strategic management Model for long term basis in order to survive in the market. These five elements can play a crucial role in the organizational success by setting up a direction. These elements include Purpose, Principles, Processes, People, and Performance. The 5P’s Model and their alignment are shown below:



SOURCES: Pryor, M.G., Anderson, D., Toombs, L.A. and Humphreys, J.H., 2007

The arrows in the figure demonstrate the link between Purpose with the Principles and Processes. The former deals with the internal structures whereas the later with external structures. The third arrow shows the impact of people’s behavior on performance. Whereas the arrow from Performance to Purpose represents the feedback mechanism in order to guide and set the direction for accomplishment of organizational goals which ultimately lead it towards long-term survival.

**Purpose**

The purpose of any organization depicts the strategic intentions of an organization. The organization’s mission, vision, goals, and objectives constitute these intentions.

Stylo have established the strategic direction in order to attain its goals. The driving force behind the structure of small business is its strategies Chandler (1962). The Processes and Principles should support the Purpose of the objective being set by the organization.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Principles**

In order to conduct a business there are escorting philosophies, assumptions and attitudes. The employees when hired it is necessary for them to acquire those ethics and core values which are being practiced at the work place, in order to demonstrate their commitment to the organization. At Stylo these core values provide the basic building block for its employees. The employer i.e. the CEO, COO and the Director himself show keen interest in resolving the issue of employees.

### **Processes**

Organizations provide their goods and services in the market when they go through the transition phase of “Process” based on organizational structures, systems and procedures. At Stylo, the top management makes it certain that all the processes should get documented with the help of maps, flow-charts and checklists on departmental level. Operations management manages the processes, people and resources in order to provide good quality products at low cost (Johnston, 2001).

### **People**

In order to achieve the purpose of the organization, the employees work individually and in groups to align the Principles and Processes to achieve organizational objectives. Before making the people (employees behavior) effective for organizational success, the three pillars of the 5P’s Model namely Purpose, Principles & Processes should be prepared beforehand. The ongoing control of people and resources can be acquired through Operations management where the power of decision making is not concerted at the upper echelons of the organization as suggested by Cavenaghi (2001) and Rodrigues and Oliveira (2008).

The leaders of Stylo have understood the concept and all the departments have aligned the Purpose, Principles and Processes, as a result of which the People (employees) can attain Performance excellence which leads towards the accomplishment of organizational goals.

### **Performance**

The status of any organization can be gauged by the Performance measurements and expected results. The performance measure criteria can be used for decision making at organizational level. This feedback provides a means for control. The top management of Stylo in order to attain long term survival and to generate profits should set-up a mechanism of feedback that may help in setting up future directions of Stylo.

### **Application And Strength Of 5p’s Model**

Thus in order to achieve organizational efficiency and effectiveness, the elements of 5P’s Model must be synchronized with each other. The model can be implemented in different areas including:

Strategic management,  
Quality management,  
Operations management,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Organizational Development &  
Change Management

Stylo can utilize the 5P's Model in order to maintain the quality of their product, to be innovative so that the needs and wants of the customers should be satisfied. They must in corporate Strategic management Model in order to assess, manage and improve Stylo's working. They should eliminate the underutilization of resources and produce the products at a very fast pace to compete in the market.

### **Strength Of 5p's Model**

The main strength of the Stylo is the Research and Development department of the Stylo whose main focus is on the proactive approach that prepare the “designs of New Arrivals” before the arrival of winter or summer season. At Stylo the supervisors encourage and motivate the employees to take initiative and come up with innovative and novel ideas which add value to the business.

The aforesaid model can be implemented in this organization as it can be applied to any business organization independent of its size and type, by choosing the appropriate management and leadership style.

### **Limitation Of 5p's Model**

In order to implement the 5P's Model the top management of any organization including Stylo must have the ability to comprehend the concepts of Strategic management, Operations management, Quality management, Organizational Development and Change Management. They must be aware of best management practices and leadership styles.

### **Conclusion**

Stylo one of the leading footwear brand which started its business 41 years ago from a stall has now become the choice of every female of Pakistan. The main reason behind the success of Stylo is not only the commitment and dedication of its owners but also the employees of the companies. The company provides an equal opportunity to each and every employee to give his input via a feedback from if they want a change in the organization in a constructive manner. The innovative and cutting edge shoes produced by the company have become a benchmark for its competitors. Walk with confidence is the tag line of the brand which defines the company's identity. The brand is focusing on the fashion based on the Eastern Culture. According to the head of marketing department that keeping in view the Islamic Culture they go for 'object-based' marketing in which the face of the model has not been displayed. They use shoes, bags, rainbows flowers, Dupattas and kites in order to make the advertisements attractive.

### **Recommendations**

Stylo should take initiative in implementing Strategic management Model and 5P's Model in order to survive in order to retain its current position in the cut throat competition prevailing in



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

the footwear industry among different footwear brands. Moreover in addition to the management models, Stylo should also implement the quality standards presented by the International Organization for Standardization including ISO 9000 and ISO 14000.

The former standard elaborates how to focus on quality whereas the later deals with the concerns to environment. These standards will help the Stylo to improve its operations, when top management demonstrate a keen interest in re-shaping its strategic perspective that in turn ensure long term feasibility & profitability. Today due to fast changing fashion trends, males have also shown their inclination towards these trends so there is a gap which Stylo can fulfill. They should take initiative and step in the men's footwear in order to cater the needs of male population of Pakistan. They can also manufacture orthopedic and sports shoes. Stylo should make a concerted effort in exporting its products (Shoes/Bags) to Middle East. They should implement the product focus strategy and launch a premium brand like Insignia and Fabrizio that encompasses all the international standards.

## References

- Cavenaghi, V., 2001. *Gestão do desempenho empresarial: A contribuição da área de manufatura*. São Paulo.
- Chandler, A.D., 1962. *Strategy and structure: Chapters in the history of the American enterprise*. Massachusetts Institute of Technology Cambridge.
- Johnston, R., 2001. Linking complaint management to profit. *International Journal of Service Industry Management*, 12(1), pp.60-69.
- Pryor, M.G., Anderson, D., Toombs, L.A. and Humphreys, J.H., 2007. Strategic implementation as a core competency: The 5P's model. *Journal of management Research*, 7(1), p.3.
- De Oliveira, O.J. and Rodrigues, P.C.C., 2008. A study of management of intermediate inventory in the manufacture of paper products in brazilian companies. In *Proceedings of POMS 19th Annual Conference*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Does corporate social responsibility (CSR) influence consumer repurchase intention?  
Evidence from developing country**

Dr.Samar Rahi

University of the Punjab, Lahore

Iqra Atique

University of the Punjab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore

Dr.Talat Islam

University of the Punjab, Lahore

### **Abstract**

It is important for organizations to engage customer in CSR activities for sustainability. Although companies are making continuous efforts to engage customers in such activities however managing CSR is critical. Researchers suggest that engaging customer in CSR activities is very important for its reputation, identity and image. The main objective of the research is to investigate CSR activities that help organizations to build their good reputation in the market. This research discloses that CSR activities create positive words-of-mouth for the company. The quantitative research approach is applied to collect data. The population of the study is customers who buy and engage with retail companies and stores that are engage in CSR activities. Convenience sampling approach will be applied to collect data form about 250-300 respondents through questionnaire. The data will be analyzed through Smart PLS software. This research paper will enhance awareness of customers and organizations about CSR activities.

**Keywords:** Ethical CSR, Relational CSR, Discretionary CSR, Economic CSR, Environmental CSR, Social CSR, Firm Reputation, Repurchase Intention, Word of Mouth

### **Introduction**

Now a days corporate social activities are being discussed extensively by researcher and managers across many discipline like Marketing, human resource management, communication and finance (Lindgreen, Swaen, & Maon, 2009). CSR has grown in prominence and importance since the late 1900s, when it was first brought to the attention of policymakers around the world (Crane, Matten, Glozer, & Spence, 2019). It appears that academics and practitioners have maintained their focus on CSR over the last ten years (Korhonen, Nuur, Feldmann, & Birkie, 2018). Research shows that customers are the primary reason for CSR's evolution over time. Consumers are wary of purchasing products from companies that engage in unethical or harmful practices (Green, Sinclair, & Tinson, 2016). Brand CSR is defined as the things that make people believe in the brand and, as a result, alter their RI (Chen & Chang, 2012). Customers' trust in a brand, brand loyalty, and customer retention all go up when there's more competition in the market (Kumar & Pansari, 2016). It has been shown that CSR and consumer responses can be theoretically linked. When consumers respond positively to CSR initiatives, they make more





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

responsible purchasing decisions, which in turn leads to more prudent waste management. Brands that don't do CSR often fall behind in the fierce global competition. Customers, on the other hand, are more responsive to multinational corporations that engage in extensive CSR activities (Crane, Henriques, Husted, & Matten, 2016). CSR, branding and brand management have long been regarded as management preferences and strategic business objectives by corporations (Dolbec & Chebat, 2013). As, world is changing day by day and customers are more aware about sustainability and push organizations toward sustainability development and adopt corporate social activities. In Pakistan, development of corporate social activities is in their initial stage, like removal of plastic bags. Companies are moving toward corporate social activities like they involve in charity activities, participate in economic development, try to work ethically i.e. they compete ethically with competitors etc. but organizations are facing difficulty to move customers toward CSR activities and develop those marketing activities that will help them to provide information about these activities. The primary objective of the research is to help organizations which are engage in CSR activities to enhance firm reputation that will create intention among individuals to repurchase organizations product. The objective of the research is to create good reputation of organization through good words-of-mouth, that will push individuals to purchase company product again and again. The paper will help organizations to develop those activities that will push organizations toward sustainability development. And sustainability help organization to enhance its reputation in market.

## LITERATURE REVIEW

### Corporate Social Responsibility (CSR)

There are various definitions and interpretations of CSR with inside the literature, ranging from agencies donating cash to charity to businesses repositioning themselves with inside the social realm (Jeurissen, 2010). CSR refers to a corporation's non-monetary endeavors to make the world a higher place (Khojastehpour & Johns, 2014). Social responsibility, typically referred to as CSR, refers to all of the efforts made through agencies to improve the international (Sprinkle & Maines, 2010). In reality, company social responsibility (CSR) contains a huge array of environmental, social, and moral concerns. In the literature, it's been described in lots of ways over the years (Polonsky & Jevons, 2009).

### Discretionary CSR

Now a day's sustainability is growing so organizations are making investment in CSR activities for sustainability development. It is the social responsibility of organization to engage in such activities. organizations are engaging in activities such as charities and philanthropy (Cornelissen, 2020). Some organizations ignore discretionary stakeholders interest by claiming there is no direct impact on financial results. Becoming the member of organization that makes the organization extra seen for public inspection (Bouchikhi, 2007), permitting the organization to place its company identification primarily based totally on stakeholder expectations. Discretionary CSR activities help organizations to enhance their reputation. So, the study hypothesis is;



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**H1:** Discretionary CSR positively influence on firm reputation.

### **Ethical CSR**

Ethics and morality are interchangeable terms that differentiate between right and wrong. It is mandatory for any business to follow the ethical standards for several reason such as ensuring mutual commitments, respecting property rights and fulfill the promises(Jackson, 2004).It is mandatory for all organizations to follow the ethical rules and regulation.

**H2:** Ethical CSR positively enhance firm reputation.

### **Relational CSR**

The success of an organization depends on its capacity to manage interactions with various stakeholders, including consumers, employees, suppliers, politicians, and owners (Ihlen, 2008). Stakeholder views necessary for companies because their interests are continually at risk (Freeman & Phillips, 2002). Customers who directly affect a company's financial line are no longer seen as entertainment by businesses. Building relationships with the multiple stakeholders who are essential to a company's success is the actual challenge. In particular, a business must create interactions of mutual benefit that show relationships at the corporate level (Balmer & Greyser, 2003).

**H3:** Relational CSR positively related to the firm repute.

### **Environmental CSR**

Environmental CSR is defined as climate change and natural resource utilization. In 21<sup>st</sup> century climate change is the most difficult issue that the world is facing(O'Brien & Leichenko, 2000). According to previous research (Halldórsson & Kovács, 2010),different stakeholder are more incline towards climate change and consumption of energy from natural resources. Companies use variety of method to deal with climate issues such as resource use, supply chain difficulties. (Kolk & Pinkse, 2007). Due to its potential strategic implications on corporate decisions, climate change is a global environmental concern that is gaining more and more attention from the business community (Kolk & Pinkse, 2004). Business environment have effect on organization performance in which the firm is operating(Werther Jr & Chandler, 2005). Therefore, businesses are required to be accountable to the communities in which they operate (Werther Jr & Chandler, 2005). Social and political forces push organization to act in a responsible way. Customers demand organizations to act responsibly and make products which are environmental friendly and address environmental issues. Water pollution, air pollution and greenhouse effect are the main environmental issues, the world is facing (Heslin & Ochoa, 2008).

**H4:** Environmental CSR positively enhance firm repute.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Economic CSR**

Companies have initiatives to engage in sustainable practices and production process by making recyclable green products to reduce waste and become successful as well as fulfill their economic responsibility. A fundamental duty of organization is economic performance. The requirement for consistent and sustainable growth in corporate value and profitability to support shareholder economic interests is essential. Economic responsibility, according to (Carroll, 1979), includes the creation of jobs, fair compensation for employees, the development of new products, and services. According to this perspective, a corporation is the economic organization that exists inside society. This includes fair compensation for employees, the development of new products, and services.

**H5:** Economic CSR positively related to firm repute.

### **Firm Reputation**

Firm Reputation is define as a common perspective of the organization's past activity and beliefs about its future activities (Newbury, Deephouse, & Gardberg, 2019). Furthermore, (Gopi & Ramayah, 2007) show that FRP is the organization's future marketing strategy that will influence both internal and external investors. CR is a reputation that fosters consumer and vendor loyalty and trust. Firms are becoming more and more worried about their reputations in the twenty-first century due to new problems including a more unpredictable firm's environment, huge competition, rise in the demand for transparency, and a rise in the importance of social responsibility. In terms of how CSR affects a company's reputation, signaling theory provides a variety of explanations (Walker, 2010). We can better understand how CSR have an effect on firm's reputation by using the concept of signaling. Buyers and sellers look for signs that show which companies are trustworthy and which are not when they have less information than they would like. **H6:** Firm repute positively create repurchase intention.

### **Word of Mouth (WOM)**

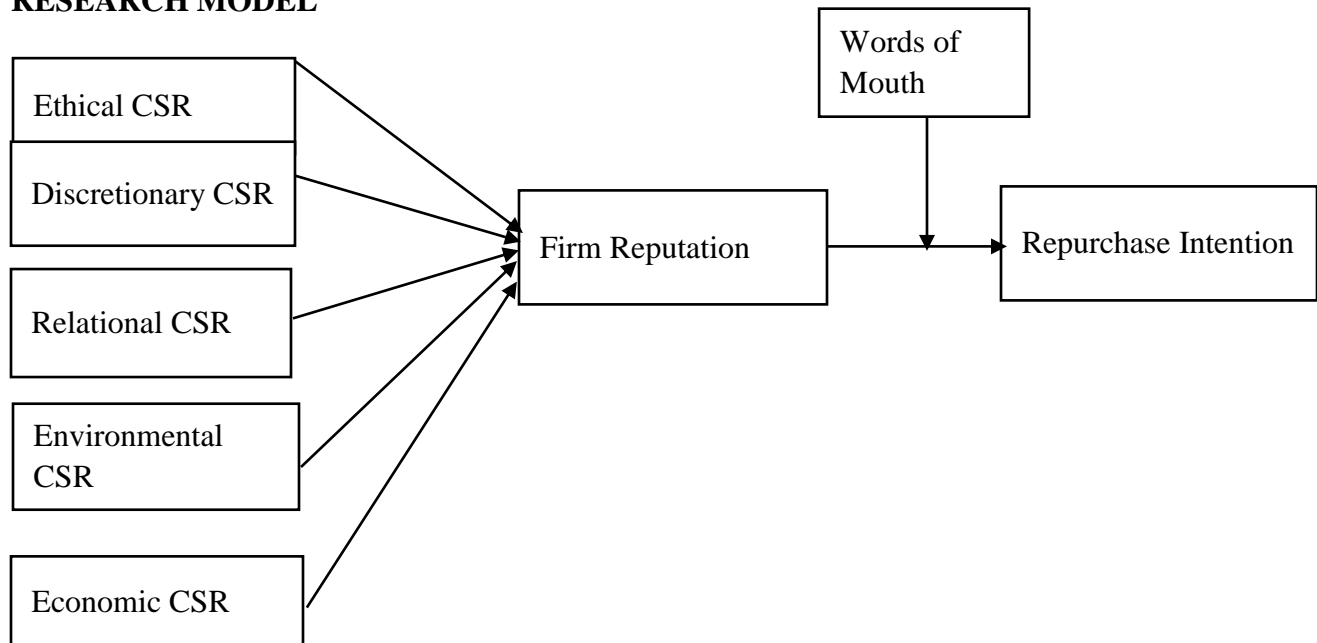
WOM marketing is described in term of the verbal behavior of people relating to a particular brand, product, or service. According to research word-of-mouth, or online word-of-mouth, might also be used to describe transmission of information and communication over the internet. (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004) noted that the development of the Internet allowed users to access web pages to gather product information and comments. Customers are encouraged to offer their personal insights, viewpoints, and related information regarding a certain subject in order to spread information electronically. **H7:** Positive WOM moderates the relationship between the firm repute and repurchase intention.

### **Repurchase intention (RIN)**

RIN is the customer's intense desire to repurchase a specific product regardless of other product (Kuo, Wu, & Deng, 2009). When a customer has a good experience with a good or service, repurchase intention is viewed as an emotional and behavioral response (Kuo et al., 2009). It is essential to have "information about the client group to be served, their needs and wants, and the resources to do it." Based on the value of their relationships, customers assess the value of their

future purchases and transactions (Beldad, De Jong, & Steehouder, 2010). Most experts believed that "behavioral intents" and "repurchase intention" were interchangeable terms. The term "repurchase intention" indicates the probability that a customer would make another purchase from a specific retailer (Wang, Chen, & Jiang, 2009).

### RESEARCH MODEL



### Methodology

Positivist paradigm is used for the study which is also supported by previous researchers (Rahi, 2017). The paper is based on deductive paradigm rather than inductive, because the paper is based on exploring the existing theory rather than introducing the new one (Rahi, Khan, & Alghizzawi, 2021). The study is based on quantitative research design, carried out with survey technique in which data is collected through questionnaire (Rahi & Ghani, 2019). The population of the study are customers who buy products from retail outlets and people related to the retail industry of Pakistan. Convenience sampling technique is used for data collection in the study (Rahi, 2017). The sample size selected for the research are 250-300 respondents, customers and workers of retail industry of Pakistan. Smart PLS software will be used to analyze data. The study uses close ended questions for demographic information of customers, while 7-point scale will be used for evaluation, in which 1 denotes to strongly disagree and 7 denotes to strongly agree.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Conclusion**

After studying the literature, it is concluded that CSR activities enhance firm reputation. The organization which are engaging in the CSR activities are considered to be very effective and it builds the firm reputation. Customers are willing to purchase products from that type of organization which are engaging in CSR activities.

If organization become successful creating positive reputation of the firm among customer this will create intention among customer to repurchase company product. Customers are more likely to shop again if they were satisfied with their past experience. Good firm reputation creates the positive word of mouth. Word of mouth act as a moderator between firm reputation and repurchase intention.

The paper helps the organization and management to create good reputation of organization and enhance their repurchasing capability of company product.

### **References**

- Balmer, J., & Greyser, S. (2003). *Revealing the corporation: Perspectives on identity, image, reputation, corporate branding and corporate level marketing*: Routledge.
- Beldad, A., De Jong, M., & Stehouder, M. (2010). How shall I trust the faceless and the intangible? A literature review on the antecedents of online trust. *Computers in Human Behavior*, 26(5), 857-869.
- Bouchikhi, H. (2007). *Soul Of The Corporation: How To Manage The Identity Of Your Company*: Pearson Education India.
- Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *Academy of management review*, 4(4), 497-505.
- Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*.
- Cornelissen, J. P. (2020). Corporate communication: A guide to theory and practice. *Corporate Communication*, 1-336.
- Crane, A., Henriques, I., Husted, B. W., & Matten, D. (2016). What constitutes a theoretical contribution in the business and society field? *Business & Society*, 55(6), 783-791.
- Crane, A., Matten, D., Glozer, S., & Spence, L. J. (2019). *Business ethics: Managing corporate citizenship and sustainability in the age of globalization*: Oxford University Press, USA.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Dolbec, P.-Y., & Chebat, J.-C. (2013). The impact of a flagship vs. a brand store on brand attitude, brand attachment and brand equity. *Journal of retailing*, 89(4), 460-466.

Freeman, R. E., & Phillips, R. A. (2002). Stakeholder theory: A libertarian defense. *Business ethics quarterly*, 12(3), 331-349.

Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country. *International Journal of Emerging Markets*.

Green, T., Sinclair, G., & Tinson, J. (2016). Do they know it's CSR at all? An exploration of socially responsible music consumption. *Journal of Business Ethics*, 138(2), 231-246.

Halldórsson, Á., & Kovács, G. (2010). The sustainable agenda and energy efficiency: Logistics solutions and supply chains in times of climate change. *International Journal of Physical Distribution & Logistics Management*.

Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet? *Journal of interactive marketing*, 18(1), 38-52.

Heslin, P. A., & Ochoa, J. D. (2008). Understanding and developing strategic corporate social responsibility. *Organizational Dynamics*, 37, 125-144.

Ihlen, Ø. (2008). Mapping the environment for corporate social responsibility: Stakeholders, publics and the public sphere. *Corporate Communications: An International Journal*.

Jackson, K. T. (2004). *Building reputational capital: Strategies for integrity and fair play that improve the bottom line*: Oxford University Press.

Jeurissen, A. (2010). The glass ceiling of corporate social responsibility: Consequences of a business case approach towards CSR. *International Journal of Sociology and Social Policy*, 30(11/12), 618-631.

Khojastehpour, M., & Johns, R. (2014). The effect of environmental CSR issues on corporate/brand reputation and corporate profitability. *European Business Review*.

Kolk, A., & Pinkse, J. (2004). Market strategies for climate change. *European management journal*, 22(3), 304-314.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Kolk, A., & Pinkse, J. (2007). Towards strategic stakeholder management? Integrating perspectives on sustainability challenges such as corporate responses to climate change. *Corporate Governance: The international journal of business in society*.

Korhonen, J., Nuur, C., Feldmann, A., & Birkie, S. E. (2018). Circular economy as an essentially contested concept. *Journal of cleaner production*, 175, 544-552.

Kumar, V., & Pansari, A. (2016). Competitive advantage through engagement. *Journal of marketing research*, 53(4), 497-514.

Kuo, Y.-F., Wu, C.-M., & Deng, W.-J. (2009). The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services. *Computers in Human Behavior*, 25(4), 887-896.

Lindgreen, A., Swaen, V., & Maon, F. (2009). Introduction: Corporate social responsibility implementation. *Journal of Business Ethics*, 85(2), 251-256.

Newbury, W., Deephouse, D. L., & Gardberg, N. A. (2019). Global aspects of reputation and strategic management *Global aspects of reputation and strategic management*: Emerald Publishing Limited.

O'Brien, K. L., & Leichenko, R. M. (2000). Double exposure: assessing the impacts of climate change within the context of economic globalization. *Global environmental change*, 10(3), 221-232.

Polonsky, M., & Jevons, C. (2009). Global branding and strategic CSR: an overview of three types of complexity. *International marketing review*.

Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5.

Rahi, S., & Ghani, M. A. (2019). Integration of DeLone and McLean and self-determination theory in internet banking continuance intention context. *International Journal of Accounting & Information Management*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Rahi, S., Khan, M. M., & Alghizzawi, M. (2021). Factors influencing the adoption of telemedicine health services during COVID-19 pandemic crisis: an integrative research model. *Enterprise Information Systems*, 15(6), 769-793.

Sprinkle, G. B., & Maines, L. A. (2010). The benefits and costs of corporate social responsibility. *Business Horizons*, 53(5), 445-453.

Walker, K. (2010). A systematic review of the corporate reputation literature: Definition, measurement, and theory. *Corporate reputation review*, 12(4), 357-387.

Werther Jr, W. B., & Chandler, D. (2005). Strategic corporate social responsibility as global brand insurance. *Business Horizons*, 48(4), 317-324.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Board Characteristics, Industry Competition and Investment Efficiency in Pakistani Listed Firms**

Ayesha Sattar

University of Veterinary & Animal Sciences, Lahore

Dr. Raheel Safdar

University of Veterinary & Animal Sciences, Lahore

### **Abstract**

This study examines how board characteristics, i.e. Board gender diversity, Board independence, and Board size, affect investment efficiency in Pakistani listed companies considering industry competition. In Pakistani markets where corporate governance is weaker than other developing countries and empirical evidence related to the role of board characteristics in investment efficiency in Pakistani listed firms is absent, this study fills the gap by studying the role of board characteristics in investment efficiency in Pakistani listed firms. The secondary data is collected from financial statement of 122 non-financial listed firms on Pakistan stock exchange from the period 2012-2021. The result shows that Board gender diversity improve investment efficiency while board independence and Board Size have no effect on investment efficiency. Market competition do moderate the relationship between Board characteristics and investment efficiency. Board Size in competitive industry have a better impact on investment efficiency as bigger board have diverse skills, knowledge, competency and experience. This research will help in understanding the role of competitive environment while making investment decisions. This study will help firms to understand the role of female directors, independent director in making investment decisions.

**Keywords:** Industry competition- Board gender diversity- Board independence- Board size - Investment efficiency- Agency problem- Moral hazard.

### **Introduction**

#### **Investment Efficiency**

Investment is crucial to a company's long-term success in the marketplace and the creation of new value for its shareholders. Economic conditions, monetary and fiscal policy, the capital market, and the activities of enterprises all have an impact on investment decisions (Ullah, Zeb, Khan, & Xiao, 2020). If a company takes on initiatives with a positive net present value (NPV) in the absence of market frictions like adverse selection or agency fees, we conceptually characterize that firm as investing efficiently. The goal of investment efficiency is to guarantee that every dollar invested by shareholders produces the best return possible (Nor et al 2017). For an efficient corporate governance structure, creating an effective board of directors continues to be an important and practical choice. It's critical to recognize the properties of a board that make it more effective than another. Board gender diversity, board independence, and board size were chosen as three board characteristics to investigate the effect of board characteristics on investment efficiency.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Board Gender Diversity**

The promotion of women to corporate boards has gotten a lot of attention around the world, and it's become one of the most frequently discussed topics in corporate governance. Women are underrepresented on corporate boards. According to (Adams & Ferreira, 2009), female directors account for 8.7%, 10.6%, 0.4 percent, and 8.0 percent of directors in Australia, Canada, Japan, and Europe, respectively. Many governance reform initiatives emphasize the necessity of gender diversity in the boardroom. Having a female on a board has a massive influence on governance. Companies with more women in senior management have been found to be more profitable and have greater stock returns following initial public offerings than companies with fewer women in management. According to some studies, Female directors are more independent than male directors, and firms with more female board presence have better performance (Shin, Chang, Jeon, & Kim, 2020). Despite the vast literature on gender diversity and company performance, little research on the influence of gender diversity on investment efficiency has been conducted in Pakistan. We are filling this gap by investigating the influence of gender diversity on the investment efficiency of Pakistani-listed companies.

### **Board Independence:**

An independent non-executive director is someone who does not have any executive tasks or obligations and is unaffiliated with the organization in any way, either directly or indirectly. Independent directors play a crucial role in good corporate governance by monitoring firm operations because they have no personal or financial interests in the company or ties to the management (Nor et al., 2017). According to Bravo et al. (2017), an independent director should have "no significant link" with the listed business, either directly or as a partner, shareholder, or official of an entity with a relationship with the organization. Independent directors have been shown to have a positive impact on corporate decisions and financial performance in the literature. Higher board independence improves board quality, resulting in more efficient strategic choices and increased company value. Because shareholders regard independent directors as watchdogs to mitigate agency concerns, board independence leads to increased cash holdings. However, no research has been done on the impact of independent directors on investment efficiency in Pakistan. Our research focuses on the influence of independent directors on the investment efficiency of listed companies in Pakistan.

### **Board Size**

The size of the board is one major component that is thought to affect its ability to work efficiently. Previous research has found a link between board size and business performance. According to (Kiel & Nicholson, 2003) larger board can efficiently allocate resources and perform better than a smaller board which increases the company's value. According to (Góis, 2009), the larger the board, the greater the board's competency and ability to supervise management. A larger board actively and effectively monitors company management. The established data shows the effect of board size on performance and monitoring skills but there is no literature available on the relationship of board size with investment efficiency in Pakistani listed firms and this study attempt to fulfill this gap. According to (Nor et al., 2017), board size





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and accounting quality have a favorable link, which determines the relationship with investment level. Because they organize numerous monitoring committees, assign specific tasks, and have more directors with relevant financial reporting knowledge, larger boards lessen information asymmetry (Ji, 2016).

### **Industry competition**

The competitive industry acts as a moderator between independent (board gender diversity, board independence, board size) and dependent variables (investment efficiency). One of the external governance mechanisms that have a multi-faceted impact on firm performance is competition. Although research on the impact of competition on other aspects of corporate finance has been limited, this topic has recently received increased attention (Huang & Lee, 2013). Competition decreases managerial slack and enhances monitoring; hence strengthening the convergence of managers' and shareholders' interests (Dalton, Daily, Johnson, & Ellstrand, 1999). Firms in non-competitive industries, whose management lacks discipline due to a lack of competitive pressure, should gain more from effective governance (Giroud & Mueller, 2011).

### **Literature Review and Hypothesis development:**

Investment is crucial to a company's long-term success in the market and the creation of new wealth for shareholders. The decision to invest is based on the benefits and interest that can be expected from investments, such as future growth and product demand. The positive net present value (NPV) of an investment project undertaken by an organization under a predictable scenario, devoid of market imperfections such as moral hazard or agency cost, is referred to as investment efficiency. Developing effective corporate governance systems is suggested as a way to improve investment effectiveness by preventing well-governed organizations from inefficiency.

The presence of women on the board of directors is known as gender diversity. Women are seen to be more risk averse, which has an impact on the kind of investments they make, whereas men are thought to be more confident with money (Krishnan and Parsons 2008). Board gender diversity has attracted a lot of attention, and more study has been done to see how it affects corporate governance and firm performance. Previous research suggests that the decision-making and performance of a company are influenced by Gender diversity which is a critical governance mechanism, according to (Adams & Ferreira, 2009). The majority of these research show that having a female on the board improves governance procedures. According to Kılıç & Kuzey, (2016) Gender diversity is one of the most essential corporate governance measures for organizations. Women are un-likely than men to engage in illegal workplace behavior for monetary gain. Women in senior management are seen to be higher profitable and have higher stock returns following initial public offerings than males in senior management. Gender diversity on a board can be a tool for lowering the expenses associated with agency issues. These discussions suggest that gender diversity lead to higher investment efficiency by reducing agency problem and information asymmetry. Accordingly, we hypothesize:

**H<sub>1</sub>: Board gender diversity is positively associated investment efficiency of Pakistani listed firms.**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Strong governance should assist firms in noncompetitive industries that are not subject to competitive pressure (Giroud & Mueller, 2011). Economists have long believed that management flexibility is primarily a problem for enterprises in non-competitive industries, way back to Adam Smith (Giroud & Mueller, 2011). Managerial performance may be better assessed in the presence of competitive enterprises that serve as a standard, according to this perspective. Intense competition also lowers management slack, driving a manager to increase the efficiency of his or her company (Dhaliwal, Huang, Khurana, & Pereira, 2014). As a result, companies examine the participation of women on their boards when making strategic decisions in competitive contexts, because a diverse board can provide a wider range of strategic alternatives for dealing with rivals (Mirza et al., 2020). There is limited study on how having a female board of director's affects investment efficiency, especially in a competitive business. However, based on the preceding debate and the presence of female gender elements on the board of directors of a corporation, we propose the following hypothesis:

**H<sub>2</sub>: Higher Industry competition strengthens the proposed positive relationship between board gender diversity and investment efficiency.**

A successful board can minimize information asymmetry, allowing a company to raise capital from outside sources, implying a negative relationship between board effectiveness and cash holdings (Chen & Chuang, 2009). An independent director is someone who has no executive functions or responsibilities and has no commercial or other ties to the organization, either directly or indirectly. Independent directors are seen to be better at monitoring management since they are not, or are less, liable to the basic agency problem, which is highlighted in both academic and practitioner work (Nguyen & Nielsen, 2010). The goal of independent directors on the board, according to (Med bechir and Jouirou 2021), is to ensure an effective control system. This means that a higher share of independent directors can urge the board to be more efficient in monitoring corporate governance processes, particularly investment efficiency. Independent directors, according to previous research, are effective regulators of corporate governance standards since they have no financial or personal interest in the company. Independent directors on boards have been shown to have a favorable impact on corporate choices and performance in previous research. Firms with a lot of investment prospects have a strong motivation to keep cash on hand in order to stay competitive. An effective board, on the other hand, can provide stronger shareholder protection. Research has indicated that an organization with a high percentage of independent non-executive directors can alleviate results management by reducing accounting and financial fraud, allowing for better capital allocation and preventing managers from seizing financial resources, lowering the efficiency of the investments made. The hypothesis is as follows:

**H<sub>3</sub>: Board Independence is positively associated with investment efficiency of Pakistan listed firms.**

Companies in highly competitive businesses should have fewer outside directors, whereas those in less competitive industries should have more. We suggest that board independence is less significant, if not irrelevant, in highly competitive businesses when the corporation is already "monitored" by a competitive product market (Randøy and Jenssen 2004). The conflict between principal and agent may be less intense in highly competitive organizations. A higher level of



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

board independence benefits companies that compete in highly competitive industries. Independent directors, according to previous research, are effective regulators of corporate governance standards since they have no personal or financial stake in the firm. An independent director is also in a better position to objectively confront management since he or she has no familial links to the organization's leadership. According to an empirical research, a corporation with a high percentage of independent directors is better able to monitor earnings, decrease accounting fraud, and prevent managers from exploiting and manipulating organizational resources for personal gain (Nor, Nawawi, & Salin, 2017). Based on this debate, we may conclude that board independence benefits management in a variety of ways, but there is no evidence that it raises or reduces investment efficiency in a competitive context. We hypothesize that:

**H<sub>4</sub>: Higher Industry competition strengthens the proposed positive relationship between board independence and investment efficiency.**

The number of members on the board of directors is referred to as board size. The size of a company's board of directors is linked to its capacity to extract vital resources from the environment, such as budget, external investment, and leverage (*Dalton et al. 1999*). Large boards with a wide range of experience might improve the board's interaction. The capacity of larger boards to share the task to many persons has a substantial positive relationship with board monitoring. The available literature on the impact of board size on investment efficiency has failed to reach a consensus. Board size tend to establish multiple monitoring committees, assign specialized duties, and have more directors with appropriate skills in the financial reporting process, larger boards are more likely to promote information clarity (*Randøy and Jenssen 2004*). According to this viewpoint, board size may be a measure of an organization's capacity to develop environmental ties in order to protect important resources. In industry competition larger board will perform better than smaller board as they can handle any situation most effectively and timely respond.

According to some study, the size of the board of directors and the management quality has a favorable association, which creates a bond with the amount of investment. According to a recent study, larger boards have a favorable impact on firms' investment efficiency, supporting the premise that board size enhances ideas by providing additional suggestions and recommendations on the firm's future strategy (*Nor et al. 2017*). There is vast literature on board size effect firm performance with mixed results. But there has been almost no research on the influence of board size on investment efficiency in industry competition. By studying these above mentioned literature we can assume that if larger board improve firm performance then it might improve investment decisions as larger the board the better their decision which improve efficiency of investment and firm value and in industry competition they perform even more better. Thus these arguments can lead to the formulation of the following hypothesis:

**H<sub>5</sub>: Larger board size improves investment efficiency of Pakistan listed firms.**

**H<sub>6</sub>: Higher Industry competition strengthens the proposed positive relationship between board size and investment efficiency**

## **Methodology**

### **Research Philosophy**

The positivist research philosophy is applied in this study. It frequently entails the application of current theory to the development of hypotheses that are investigated during the research process. Positivist researchers like to utilize a highly structured research approach so that the same study may be replicated in the future.

### **Research approach**

The research method used in this study is a deductive one. It is most closely related with scientific research. The researcher looks at what the others have researched, reviews existing hypotheses about whatever phenomenon they're examining, and then puts those theories to the test.

### **Population and Sample**

There is total 36 in which 8 sectors are financial and 28 are non-financial. This study's sample includes 173 companies from the ten non-financial sectors, based on their market capitalization as they show 77% of market capitalization. Financial sector are excluded from this sample because of differences in regulatory requirements and company nature, finance businesses, companies listed on marketplaces other than the main market, and companies with insufficient data, etc. Due to missing data 51 listed companies from the ten non-financial sectors are dropped and the analysis is conducted on total 122 firms. For the year 2012 to 2021, data are gathered from financial statements available on the official websites of the firms.

**Table no: 3.1**

	Sector Name	Number of Listed firms
1	Oil and Gas Exploration	4
2	Food and Personal Care Product	24
3	Cement	20
4	Fertilizer	6
5	Chemical	26
6	Tobacco	3
7	Automobile Assemble	11
8	Textile Composite	51
9	Pharmaceutical	15
10	Technology and communication	13
	Total	173

### Source of data

There are total 36 sectors in which 28 are non-financial and the remaining are financial we have collected data from top 10 sectors on market capitalization bases as it shows 70% of the market. The data is gathered from secondary sources only. Data is collected financial statement of the listed firms on Pakistan stock exchange from the period 2012-2021.

### Research Technique

Descriptive statistics such as mean, maximum, minimum, and standard deviation are employed in the analysis, as well as Pearson's coefficient of correlation and regression analysis. After that, we utilize ordinary least square regression after gathering descriptive and correlation data (OLS). The firm's report the p-value from the OLS results

### Model and estimation technique

To test H1: Board gender diversity is positively associated investment efficiency of Pakistani listed firms. We use:

$$\text{Investment efficiency} = \beta_0 + \beta_1 \text{Board independence}_{i,t} + \varphi_j \text{Control Variables} + \varepsilon_{i,t}$$

To test H2: Higher Industry competition strengthens the proposed positive relationship between board independence and investment efficiency. We use:

$$\text{Investment Efficiency}_{i,t} = \beta_0 + \beta_1 \text{Board independence}_{i,t} + \beta_2 \text{Industry Competition}_{i,t} + \beta_3 \text{Board Independence} * \text{Industry Competition} + \varphi_j \text{Control Variables} + \varepsilon_{i,t}$$

To test H3: Board gender diversity is positively associated investment efficiency of Pakistan listed firms. **The formula will be use:**

$$\text{Investment Efficiency}_{i,t} = \beta_0 + \beta_1 \text{Board independence}_{i,t} + \beta_2 \text{Board gender diversity}_{i,t} + \varphi_j \text{Control Variables} + \varepsilon_{i,t}$$

To test H4: Higher Industry competition strengthens the proposed positive relationship between board gender diversity and investment efficiency. We use:

$$\text{Investment Efficiency}_{i,t} = \beta_0 + \beta_1 \text{Board independence}_{i,t} + \beta_2 \text{Board gender diversity}_{i,t} + \beta_3 \text{Industry Competition}_{i,t} + \beta_4 \text{Board gender diversity} * \text{Industry Competition} + \varphi_j \text{Control Variables} + \varepsilon_{i,t}$$

To test H5: Larger board size improves investment efficiency of Pakistan listed firms. We use:

$$\text{Investment Efficiency}_{i,t} = \beta_0 + \beta_1 \text{Board independence}_{i,t} + \beta_2 \text{Board gender diversity}_{i,t} + \beta_3 \text{Board Size} + \varphi_j \text{Control Variables} + \varepsilon_{i,t}$$

To test H6: Higher Industry competition strengthens the proposed positive relationship between board size and investment efficiency. We use:

$$\text{Investment Efficiency}_{i,t} = \beta_0 + \beta_1 \text{Board independence}_{i,t} + \beta_2 \text{Board gender diversity}_{i,t} + \beta_3 \text{Board size}_{i,t} + \beta_4 \text{Industry Competition}_{i,t} + \beta_5 \text{Board Size} * \text{Industry Competition} + \varphi_j \text{Control Variables} + \varepsilon_{i,t}$$



**Table no: 3.2 Proxy measures**

Variable Type	Variable name	Proxy measures
Dependent Variable	Investment Efficiency	$investment\ efficiency$ $= \alpha_0 + \alpha_1 NEG_{it-1}$ $+ \alpha_2 SalesGrowth_{it-1}$ $+ \alpha_3 NEG * SalesGrowth_{it-1}$ $+ \epsilon_{it}$
Independent Variable	Board Gender Diversity	No of female director on corporate Board/Total no of director in board
	Board Independence	No of independent director/Total no of director in board
	Board Size	No of board director
Moderator	Industry Competition	HHI (Herfindahl-Hirschman index)
Control Variable	Leverage	Short term debt+long term debt/ total assets
	Firm Size	Logarithm of total assets
	Firm Age	No of years since establishment
	PPE	Plant, Property, and Equipment

**Results and analysis****Descriptive analysis**

The results of the descriptive statistics shown in table 4.1 for the dependent variable investment efficiency has mean value -0.06 and standard deviation is 0.10. Independent variables indicate that, the average of Board gender diversity is 12% and average of board independence is 22%. In term of Board size, the average value of independent directors is 8 for all 10 years. The industry competition has average value 0.18. For the control variable PPE, leverage, firm size, and firm age have average value 1.18, 0.21, 15 and 3.

Table 4.1-Descriptive Statistics:

**Correlation analysis**

A correlation test is performed to analyze if there exists correlation among the variables that are used in this study shown in table 4.2. The level of significance specifies whether it can be implicit that the perceived result may or may not happen by chance. The lower the significance score the more reliable the relationship is. The correlation coefficient between HHI (Industry competition) and investment efficiency is 0.088\*\*\* which implies that in competitive industry the investment will be more efficient relative to the non-competitive industries. The correlation results show that there is in-significant and positive relationship of Board gender diversity and with investment efficiency at 0.009 which is contrary to the result of *Mirza et al. 2020*. Board independence has negative and insignificant impact on investment efficiency at -0.018. Board

Variable	Obs.	Mean	Std. Devi	Min	Max
Investment efficiency	960	-0.06	0.10	-1.96	0
Board gender diversity	960	0.12	0.13	0	0.71
Board Independence	960	0.22	0.18	0	0.90
Board Size	960	8.03	1.56	5	15
HHI	960	0.18	0.12	0.06	0.68
Leverage	960	0.21	0.20	0	1.69
Firm Size	960	15.95	1.70	11.32	20.67
Firm Age	960	3.62	0.50	1.79	5.08
PPE	960	1.18	2.58	0	2.34

Size have in-significant and positive relationship with investment efficiency at 0.00 which is contrary to the result of (Nor, Nawawi, & Salin, 2017).

**Regression Analysis**

F-Statistics and R-square values shows that our result are reliable and support of hypothesis. Simple linear regression analysis is conducted to test the hypothesis. In the regression analysis table there are total 3 models are used in first model dependent and independent variable with control variable are entered. In 2<sup>nd</sup> model dependent, independent, moderator and control variables are tested. In last model dependent, independent, moderator, control variables and interaction terms are included. The regression result of model 3 are shown in the below table 4.3 shows the main finding of analysis. Model 1 and 2 indicate negative and insignificant relation but in model 3 Board gender diversity become positive and significant because of competition effect. The coefficient value is 0.050\*\* between gender diversity and investment efficiency which indicate that firms with more female director are able to manage better investment decisions and make investment efficiently as they are risk averse and carefully take decisions. The second hypothesis results is represented by an interaction term in table 4.3 and have negative coefficient value -0.119 because they need a long time to make judgments and require numerous meetings and information sources. As a result, competitors could take advantage of favorable investment possibilities. The result of third hypothesis have negative coefficient value -0.024 which implies that independent directors have no relation with investment efficiency. As they play significant role in monitoring company function and do not impact company investment

decisions. The fourth hypothesis is industry competition strengthens the relationship between Board independence and investment efficiency. As shown in model 3 their interaction term coefficient value is positive but insignificant 0.118 which implies that independent director does not affect investment decisions in high industry competition. As the firm is already "monitored" by a competitive market, board independence is less important or perhaps unnecessary in highly competitive industries. The next hypothesis fifth is larger board size improves investment efficiency. This has negative coefficient value -0.006 because agency problem and communication/coordination issues are more common with larger boards (Cheng, S., 2008). The last hypothesis is industry competition positively moderates the relationship between Board size and investment efficiency. As result shown in model 3 it is supported our hypothesis. Their interaction value is 0.017\* which means that in high competition firms with larger board size invest more efficiently.

### Regression analysis

Investment efficiency	M 1	M 2	M 3
Board gender diversity	.0289 (1.2)	0.033 (1.39)	0.051** (2)
Board Independence	-.009 (-0.55)	-0.006 (-0.39)	-0.024 (-1.06)
Board Size	-.001 (-0.35)	-0.002 (-0.58)	-0.006 (-1.14)
HHI		0.062*** (4.14)	-0.087 (-1)
Board gender diversity*HHI			-0.120 (-1.13)
Board Independence*HHI			0.118 (1.59)
Board Size*HHI			0.017* (1.77)
Leverage	-.040* (-1.73)	-0.031 (-1.28)	-0.032 (-1.31)
Firm Size	.006*** (2.38)	0.006** (2.31)	0.005** (2.29)
Firm Age	.0009 (0.19)	0.002 (0.41)	0.001 (0.28)
PPE	-0.000 (-1.18)	-0.000 (-1.39)	-0.000* (-1.75)
Intercept	-.143*** (-3.57)	-0.152*** (-3.78)	-0.113** (-2.28)
Number of observation	960	960	960
F Statistics	1.72	2.12	1.76
Prob> F	0.100	0.032	0.058
R-squared	0.013	0.018	0.020

Note: \*\*\*, \*\*, \* represents significance at 1%, 5%, 10% respectively.

Table no. 4.3

The first control variable is leverage which is negatively associated at -0.032, which shows that with the increase in leverage, investment efficiency will decrease. The second control variable is firm size which has positive and significant value 0.005\*\*. As larger firm size are likely to make investment efficiently. Third control variable is firm age has positive coefficient value 0.001 and fourth control variable is PPE with coefficient value -0.000\*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Discussion and Conclusion**

There is no previous research available which has studied the impact of Board characteristics (Gender diversity, Board independence, Board Size) on investment efficiency in Pakistan. Almost all available studies are on the role of board characteristics in firm performance. But some researchers (*Ain et al. 2020; Mirza et al. 2020; Nor et al. 2017*) studied board characteristics impact on investment efficiency in different countries. The aim of this research is to check the impact of Board characteristics on investment efficiency in competitive industry of Pakistani listed firms. Our research's empirical findings enabled us to explore the connections between corporate governance and investment efficiency measures. We estimated this using a panel data model on a sample of 120 Pakistani listed firms between the years of 2012 to 2021. Before doing a correlation analysis to demonstrate the direction and degree of the relationship between board characteristics and investment efficiency, descriptive statistics were first employed to describe the data. After that, ordinary least square regression was used to do the regression analysis. Our empirical results shed light on how specific governance approaches like gender diversity, board independence, and board size relate to moderating industry competition and investment efficiency measures. To determine if board qualities impact firm financial performance, six hypotheses are derived. Through the result we discovered a positively and statistically significant link between board gender diversity and investment efficiency which support our first hypothesis that board gender diversity is positively and significantly associated investment efficiency, supported by (*Mirza et al. 2020*) that female directors are risk averse and make decisions carefully which improve company governance and investment efficiency. But in the industry competition we found negative and insignificant relation of Board gender diversity and investment efficiency because bias exists in Pakistan's workforce for women. The percentage of women on the board is normal and not noteworthy (*Kamran, et al.2022*). Therefore, it can be concluded that because of their low ratio in board they hesitate to openly share their ideas and not play role in investment decisions during competition. The second independent variable have negative and insignificant relation with investment efficiency contrary to our hypothesis H3 supported by (*Nor et al. 2017*) since they tend to serve an effective function in monitoring companies by ensuring the company does not over or under invest, they have no influence on investment decisions. In view of this, it may be said that a board's inclusion of an independent director is necessary for good board oversight of a firm's investment. In the presence of competition, board independence doesn't play any role in making investment efficient contrary to our hypothesis H4. Because the firm is already "monitored" by a competitive market, board independence is less important or perhaps unnecessary in highly competitive industries (*Randøy, T. and Jenssen, J.I., 2004*). In contrast to businesses operating in less competitive industries, we propose that businesses in highly competitive industries should have fewer outside board members. The fifth hypothesis indicate positive and significant relation between Board size and investment efficiency but we found negative and insignificant relationship between board size and investment efficiency. Contrary to the finding of (*Amy E. Ji, 2016*) that by reducing the information asymmetry between management and outside capital providers, larger boards seem to increase investment efficiency. Our findings might suggest that a firm shouldn't have too many directors at the top levels of decision-making because this will slow down the decision-making process and make it difficult to oversee the organization (*Nor et al. 2017*). The last hypothesis is higher industry competition strengthen the relation between Board size and investment. We found that in the presence of competition board size is positive and significant relate to investment efficiency which support H6 that





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

bigger board size can better deal with competitive industries. According to (Nor et al. 2017) larger boards tend to have more directors with relevant knowledge and expertise in financial reporting, so they can better deal with competitive industries. We have made an effort to explain and clarify the significance of specific governance characteristics and how they affect the degree of investment in Pakistani listed firms. Rarely has recent research looked at how restrictions on corporate governance affect the factors that influence investment efficiency. Our research opens up a new line of inquiry to determine whether there are additional factors that affect investment efficiency and whether there are additional governance systems that might affect the efficiency of investments made by Pakistani listed firms. This research is conducted on Pakistani listed firm; future studies can conduct the same research on Pakistan non-listed firms. The larger sample size may be used for future study. We follow Chen et al, 2011 methodology for the research, it can be explore by adopting different model of different researcher to get different and better results. The corporate governance is a huge concept we only conduct research on 3 Board characteristics, other variables can also be included or the research can be conducted with different board characteristics.

## References

- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *JOFE*, 94(2), 291-309.
- Armstrong, C. S., Core, J. E., & Guay, W. R. (2014). Do independent directors cause improvements in firm transparency? *JOFE*, 113(3), 383-403.
- Ain, Q. U., Yuan, X., Javaid, H. M., Usman, M., & Haris, M. (2020). Female directors and agency costs: evidence from Chinese listed firms. *IJOEM*.
- Allen, F., & Gale, D. (2001). Comparative financial systems: a survey: Wharton School Center for Financial Institutions, University of Pennsylvania.
- Alzoubi, E. S. S. (2014). Board characteristics and financial reporting quality: evidence from Jordan. *Corporate Ownership and Control*, 11(3), 8-29.
- Benkraiem, R., Hamrouni, A., Lakhel, F., & Toumi, N. (2017). Board independence, gender diversity and CEO compensation. *Corporate Governance: TIJOBIS*
- Bhuiyan, M., Ullah, H., & Biswas, P. K. (2007). Corporate governance and reporting: An empirical study of the listed companies in Bangladesh. *Corporate Governance and Reporting: An Empirical Study of the Listed Companies in Bangladesh*. Dhaka University *JOBS*, 28(1).
- Biddle, G. C., Hilary, G., & Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency? *JOAAE*, 48(2-3), 112-131. Bonazzi, L., & Islam, S. M. (2007). Agency theory



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
and corporate governance: A study of the effectiveness of board in their monitoring of the CEO.

*JOMIM*.

Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial review*, 38(1), 33-53.

Chen, Y.-R., & Chuang, W.-T. (2009). Alignment or entrenchment? Corporate governance and cash holdings in growing firms. *JOBR*, 62(11), 1200-1206.

Cheng S. 2008. Board size and the variability of corporate performance. *JOFE*. 87(1): 157-176.

Cheng, M., Dhaliwal, D., & Zhang, Y. (2013). Does investment efficiency improve after the disclosure of material weaknesses in internal control over financial reporting? *JOAAE*, 56(1), 1-18.

Chou, H.-I., Li, H., & Yin, X. (2010). The effects of financial distress and capital structure on the work effort of outside directors. *JOEF*, 17(3), 300-312.

Davis, J. H., Schoorman, F. D., & Donaldson, L. (2018). Toward a stewardship theory of management Business ethics and strategy (pp. 473-500): *Routledge*.

Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *AOMJ*, 42(6), 674-686.

Dhaliwal, D., Huang, S., Khurana, I. K., & Pereira, R. (2014). Product market competition and conditional conservatism. *Review of Accounting Studies*, 19(4), 1309-1345.

Eisenberg T, Sundgren S, Wells MT. 1998. Larger board size and decreasing firm value in small firms. *JOFE*. 48(1): 35-54.

Faccio, M., Marchica, M.-T., & Mura, R. (2016). CEO gender, corporate risk-taking, and the efficiency of capital allocation. *JOCF*, 39, 193-209.

Giroud, X., & Mueller, H. M. (2011). Corporate governance, product market competition, and equity prices. *TJOF*, 66(2), 563-600.

Gul, F. A., Srinidhi, B., & Ng, A. C. (2011). Does board gender diversity improve the informativeness of stock prices? *JOAE*, 51(3), 314-338.

Guest, P. M. (2009). The impact of board size on firm performance: evidence from the UK. *TEJOF*, 15(4), 385-404.

Hayashi, F. (1982). Tobin's marginal q and average q: A neoclassical interpretation.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
Econometrica: *JOTES*, 213-224.

Holmstrom, B. (1982). Moral hazard in teams. *TBJOE*, 324-340.

Huang, H.-H., & Lee, H.-H. (2013). Product market competition and credit risk. *JOBAF*, 37(2), 324-340.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *JOFE*, 3(4), 305-360.

Ji, Amy E. (2016). The Impact of Board Size on Firm-Level Capital Investment Efficiency. *IJOEAF*

Kılıç, M., & Kuzey, C. (2016). The effect of board gender diversity on firm performance: evidence from Turkey. *Gender in management: AIJ*.

Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate governance: an international review*, 11(3), 189-205.

Krishnan, G. V. (2003). Does Big 6 auditor industry expertise constrain earnings management? *Accounting horizons*, 17, 1-16.

Mahadeo, J. D., Soobaroyen, T., & Hanuman, V. O. (2012). Board composition and financial performance: Uncovering the effects of diversity in an emerging economy. *JOBE*, 105(3), 375-388.

Mak YT, Kusnadi Y. 2005. Size really matters: Further evidence on the negative relationship between board size and firm value. *PBFJ*. 13(3): 301-318.

McNichols MF, Stubben SR. 2008. Does earnings management affect firms' investment decisions? *TAR*. 83(6): 1571-1603.

Med bechir C, Jouirou M. 2021. Investment efficiency and corporate governance: evidence from Asian listed firms. *JOSFAI*. 1-23.

Mirza, S. S., Majeed, M. A., & Ahsan, T. (2020). Board gender diversity, competitive pressure and investment efficiency in Chinese private firms. *Eurasian Business Review*, 10(3), 417-440.

Mohy-Ud-Din, K., Ahmad, R., Ishaq, H.M. and Akram, M., 2022. Moderating role of investment efficiency between board diversity and dividend policy: Evidence from Pakistan. *iRASD Journal of Management*, 4(2), pp.286-298.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Nguyen, B. D., & Nielsen, K. M. (2010). The value of independent directors: Evidence from sudden deaths. *JOFE*, 98(3), 550-567.

Nor, N., Nawawi, A., & Salin, A. (2017). The influence of board independence, board size and managerial ownership on firm investment efficiency. *PJOSSAH*, 25(3), 1039-1058.

Nielsen, S., & Huse, M. (2010). Women directors' contribution to board decision-making and strategic involvement: The role of equality perception. *EMR*, 7(1), 16-29.

Randøy, T., & Jenssen, J. I. (2004). Board independence and product market competition in Swedish firms (Vol. 12, pp. 281-289): *WOL*.

Reguera-Alvarado, N., & Bravo, F. (2017). The effect of independent directors' characteristics on firm performance: Tenure and multiple directorships. *RIIBAF*, 41, 590-599.

Richardson, S. (2006). Over-investment of free cash flow. *Review of accounting studies*, 11(2), 159-189.

Salin, A., Nor, N. H. M., & Nawawi, A. (2018). Corporate Governance and Investment Efficiency: Malaysian Evidence. Paper presented at the Proceeding of *INSIGHT 2018 1<sup>st</sup> International Conference on Religion, Social Sciences and Technological Education*.

Shin, Y. Z., Chang, J.-Y., Jeon, K., & Kim, H. (2020). Female directors on the board and investment efficiency: evidence from Korea. *Asian Business & Management*, 19(4), 438-479.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *TJOF*, 52(2), 737-783.

Stoughton, N. M., Wong, K. P., & Yi, L. (2017). Investment efficiency and product market competition. *JOFAQA*, 52(6), 2611-2642.

Topal, Y., & Dogan, M. (2014). Impact of board size on financial performance: The case of BIST manufacturing industry. *IJOBMAER*, 5(4), 74-79.

Tran, Q. T. (2019). Independent directors and corporate investment: evidence from an emerging market. *JOEAD*.

Ullah I, Zeb A, Khan MA, Xiao W. 2020. Board diversity and investment efficiency: evidence from China. *Corporate Governance: The International Journal of Business in Society*.

Weisbach, M. S. (1988). Outside directors and CEO turnover. *JOFE*, 20, 431-460.

Xiao, G. (2013). Legal shareholder protection and corporate R&D investment. *JOCF*, 23, 240-266.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Investigating Consumer Behavior towards Green Purchasing with Mediating Role of Consumer Pro-Environmental Behavior and Moderating Effect of Availability of Green Products**

Dr. Samar Rahi

University of the Punjab, Lahore

Takreem Fatima

University of the Punjab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore

Dr. Talat Islam

University of the Punjab, Lahore

Fiza Mubbsher

Kaizen High School

### **Abstract**

Environmental degradation has gained the wide attention of academic researchers and policymakers in the last few years. Although citizens are now worried about environmental degradation and showing concerns about purchasing green products however adoption of green products is still in its early stages. Therefore, this study investigates the impact of green marketing on consumer green purchase behaviour. Examining consumer purchase behaviour is a complex phenomenon and therefore moderating and mediating factors are included in the research model. The current study has conceptualised the mediating role of consumer pro-environmental behaviour between green marketing and green purchasing. In addition to that, the moderating role of the availability of green products is studied in the relationship between green marketing and green purchasing. The questionnaire research approach will be used to gather data from Pakistani citizens. For analysis, structural equation modelling (SEM) will be used. This study explores how Pakistan's businesses, government, and green marketing strategies influence consumer behaviour to purchase green products and promote environment-friendly products.

**Keywords:** Green marketing; Green purchasing; consumer behaviour; sustainable consumption; pro-environmental behaviour; Availability of green products; sustainable development

### **Introduction**

As time passes, developed and developing countries are increasingly concerned about climate change and environmental deterioration. Numerous objectives and agendas have been developed to safeguard the earth and keep it safe for all species. One of them is the sustainable development goal, unveiled on September 25, 2015, during the sustainable development summit. Sustainable development guarantees a bright future and a world free from pollution. By adopting the 2030 Agenda for Sustainable Development, based on the 17 SDGs, member states of the UN hope to reduce poverty, promote peace and justice, and combat climate change by that year. Besides, Goal 12 of the 2030 Agenda for Sustainable Development highlights the need to raise people's understanding of sustainable development (Chaudhuri, 2001)





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Despite these efforts, in recent years, there has been a significant increase in environmental problems, such as environmental contamination (of the air, water, and land resources), climate change, and resource depletion. The newly popular idea of “green marketing” or “sustainable marketing,” which greatly impacts sustainable development, can influence consumer buying behaviour. “Green marketing” is a term coined by the American Marketing Association to describe the process through which products that are deemed to be friendly to the environment are developed and marketed to consumers, designed to minimise negative impacts on the physical environment and improve its quality. Efforts to produce, market, package, and repurpose items in a manner that is considerate of or responsive to ecological issues may also be referred to by this phrase. Other names for green marketing include social marketing, ecological marketing, sustainability marketing, and environmental marketing. It is a significant concept with three key elements: It is a branch of marketing that evaluates both positive and negative behaviours and numerous environmental issues. There are numerous conceptual definitions for green marketing; a few such conceptualisations include (Zhu & Sarkis, 2016):

- Organisational commitments to provide environmentally sustainable goods and services (Kinoti, 2011).
- Using the four P’s (product, pricing, venue, and promotion) to avoid harming the environment (Dibb, 2005).
- Managing marketing in a way that is lucrative and sustainable while meeting customer and societal needs (Peattie, 2001).

The potential for marketers to persuade consumers is developing due to consumers’ growing knowledge of product origins and their worry about the coming global environmental crisis. Green marketing is essential for educating consumers about green products and influencing their pro-environmental behaviour, which can ultimately lead to sustainable purchasing. However, the availability of green products, which is also the focus of this study, affects sustainable purchasing. The existing literature focuses mainly on the individual effects of green marketing and consumer behaviour on green purchasing behaviour. However, there is still no comprehensive model to explain the combined effects of the two on green purchasing behaviour, with the availability of green products as a moderating factor. Additionally, most of the research done to examine how GM and GPB affect sustainability has taken place in the industrialised world. By looking into the GM and GPB in Pakistan, this study aims to fill these gaps. A framework that outlines the foundations of green marketing, green purchase, consumer pro-environmental behaviour, and availability of green products has been incorporated into the current study. Green consumption, sustainable purchase, and ecological buying are interchangeably used in the given paper.

### **Problem statement**

World Bank analysis states that industrial operations boost fuel consumption, increasing CO<sub>2</sub> emissions by up to 20 billion tonnes (Bank, 2015). According to a global air pollution and health conference, PM<sub>2.5</sub>, PM<sub>10</sub>, and ambient fine particulate matter cause around 7 million deaths worldwide (organisation, 2018). In metropolitan areas, the air about 90% of the city has become concentrated and polluted (Zhang *et al.*, 2021). In such a condition, to achieve sustainable development, nations worldwide must embark on a technological revolution, undergo a green transformation to slow and stop



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

ecological deterioration and promote green products to influence consumer perception and purchase behaviour.

Environmental importance and the effects of production and consumption on the depletion of natural resources are now well recognised in developed nations. In contrast, the drive toward the consumption of green products is still in its early stages in many growing nations like Pakistan (Ali *et al.*, 2011). A bulk of research is present on the impact of green marketing to achieve sustainable development goals and how consumer behaviour impacts sustainable development. Still, there is a lack of research on how green marketing can shape consumer behaviour or lead the behaviour in a pro-environmental manner for sustainable consumption and how even the consumer who has intention and motivation for green purchase got affected by the availability of green products. This study, especially, aims to analyse the relationship and possible gaps between consumer pro-environmental behaviour and green purchasing, using Fishbein and Ajzen's TPB (theory of planned behaviour) and theory of reason action (TRA), with an impact of green marketing independently or availability of green products as a moderating factor in Pakistan.

### **Significance of the study**

This research will aid various stakeholders. This study is significant because it will clarify students' concepts and knowledge. By clarifying the topic, students will be able to understand the relationship between the marketing or consumer pro-environmental behaviour and the impact of these two on green purchases with moderating role of the availability of green products. For the researchers, this research would provide new horizons and dimensions of green marketing and consumer pro-environmental behaviour. This research would act as empirical evidence when making policies or developing sustainability and sustainable consumption strategies. The determinants discussed in the research can be helpful in decision-making, or managers can analyse the situation better and develop strategies and then implement them according to the study. Management will be able to access the flaws in the previous strategies being used and then be able to formulate new ones. Awareness will be created in consumers regarding green products and green consumption so they can make a better selection while choosing products.

### **Research questions**

When analysing the literature, research gaps were found, which were used to determine the research topics and, where appropriate, future research agendas. The following are the research questions:

1. What is the impact of green marketing on green purchasing? Positive or negative or no impact?
2. What green marketing strategies and tools can shape consumer pro-environmental behaviour?
3. How does green marketing lead the consumers' intention for green purchasing towards actual green purchasing behaviour?
4. How does the availability of green products impact green purchasing?



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Research objectives**

The main objectives of this study include the following:

- To gain comprehensive knowledge about green marketing or consumer pro-environmental behaviour.
- The purpose of this study is to incorporate or adopt marketing strategies that will lead towards sustainable consumer consumption habits.
- To see the positive or negative impact of green marketing on green purchases with mediating role of consumer pro-environmental behaviour and moderating role of availability of green products.
- To find out how green marketing affects consumer behaviour and create awareness about green products and sustainable development.

### **Contribution to the practice and literature**

In several ways, the current effort could advance the body of literature. First, this investigation adds to the knowledge of green purchasing, green marketing, and pro-environmental consumer behaviour. Most of the currently available material has looked into using green marketing to further organisational and development goals for sustainability. The research is just recently beginning to address the connection between green marketing and consumer pro-environmental behaviour or the availability of green products and their effects on sustainable consumption (green consumption). According to this analysis, consumer pro-environment behaviour is crucial to achieving environmental sustainability because consumers are the primary enablers for reducing a company's ecological footprint. Second, it is not clear from the available research how green marketing shapes consumer pro-environmental behaviour and affects consumer choices about green products. There is some research on the subject in the literature. Still, most of these studies have been done in northern nations internationally, and globally southern nations have not gotten the attention they deserve in this context. According to this approach, industrialised and developing countries are not comparable because they have different resources, organisational structures, policies, and capabilities. Thus, it is impossible to generalise how developed economies affect developing ones. Third, the hypothesised relationship's inclusion of customer pro-environmental behaviour as a mediating variable and the availability of green products as a moderating variable is a significant addition to the body of knowledge on green marketing and green buying behaviour. The theoretical framework and the literature review are included in the next section. The methodology section covers the sampling procedure, tools, and data collection approach. The discussion and conclusion are in the last section.

### **Literature review**

#### **Green marketing**

Green Marketing has been made the popular slogan of the present time. Marketing strategies are being implemented to spread awareness about the depleting environment and about everything that is a cause of concern for sustainability, i.e. noise pollution, air pollution, and water pollution (Bhalerao & Deshmukh, 2015). The green movement has been spread around the globe, and marketers take the responsibility to make things easy to achieve the goal of sustainable consumption. The promotion of green products and consumer awareness drives the market to create more eco-friendly products, which ultimately leads towards green purchasing, "Green" marketing has evolved from a fad to a way of doing business, and companies who (a) understand the value of becoming green, (b) include this concept into



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

their marketing plans, and (c) pass this mindset on to their clients are succeeding (Pandley, 2021). Through Fisk's Theory of Responsible Consumption, Kardash's concept of the Ecologically Concerned Consumer, and Henion and Kinnear's Ecological Marketing, sustainable consumption first appeared in marketing. Initially, the focus of the research was energy use and issues related to environmental pollution caused by a rapid increase in the industrial sector like oil, automobile and chemical industries. Recycling, energy saving and how the consumer responds towards advertising and labelling of green products is the main subject of Sustainable Consumption behaviours (Peattie, 2010)

Marketers utilise a variety of environment-friendly tactics, like using easily recyclable green raw materials for manufacturing, green product packaging, or other techniques that don't hurt the environment. Due to their increased awareness of environmental protection, even consumers are now turning to green consumers. Because there are a finite number of natural resources and infinite human demands, marketers need to use natural resources effectively and without wasting them. Therefore, marketers must adopt a green marketing strategy for their companies (Singh & Sharma, 2020).

Green marketing aids marketers in identifying a variety of environment-friendly company practices. Today's fiercely competitive business environment makes green marketing essential for all marketers. Green marketing is the process of organising, carrying out, and managing the creation, assessment, and distribution of products in a way that complies with the following three standards: (1) Customer demands are satisfied, (2) organisational objectives are addressed, and (3) the process is eco-friendly. The 4 Ps of the marketing mix should be tried to be incorporated into green marketing by business houses, i.e. Green products, green place, green promotion, and green price (Bhalerao & Deshmukh, 2015). Eco-advertising, eco-labels, and eco-brands are examples of green marketing methods that can help people understand the benefits of eco-friendly products and raise their awareness. As a result, this will encourage people to buy ecologically friendly goods. By putting these policy measures into practice, consumers' purchasing habits can be changed to favour environment-friendly products, reducing the harmful effects of artificial products on the environment (FuiYeng & Yazdanifard, 2015).

#### **Pro-environmental behaviour as a mediator**

The adoption of environmentally conscious behaviours is one of the fundamental components that must be accomplished to achieve sustainability. Green behaviours often go hand in hand with green consumption, which may be defined as the act of purchasing goods that do not pollute or harm the environment, as well as behaving in a manner that is socially responsible and understands its place in the world. Included are considerations on the continuity of resource availability for succeeding generations. By choosing recyclable products with high durability, high quality, and ecological labels, excessive consumption can be avoided. This also helps reduce the number of resources and energy used (do Paço *et al.*, 2019). Pro-Environmental Behaviours (PEB) are actions that harm the environment as little as possible. There are direct and indirect ways to act ecologically friendly, allowing for individual and/or group environmental improvements.(Mansoor & Wijaksana, 2021)

Sustainable consumption promotes the purchasing of environment-friendly products or the purchase, use and disposal of such products, which minimises the negative effect on the environment (Yue *et al.*, 2020). Theories used to describe consumer behaviour, i.e. theory of reasoned action (TRA) and theory of planned behaviour (TPB), refer to the intention and motivation required to perform any action. Several studies proved that the intention to buy green products, which is described as motivation, leads towards green purchasing behaviour (Sheng *et al.*, 2019). Green consumption encourages consumers to





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

live in order or harmony with nature and society and makes them accountable and responsible for both. Consumer actions directly impact the biosphere or ecosystem; sustainable consumption behaviour may lower the negative impact of using energy and material on a large scale. Thus, sustainable consumption behaviour includes activities but is not limited to those the use of organic products, buying of energy-efficient appliances, home insulation, smart grids, devices to save water, minimise the use of plastic-made things, use of public transport, reduction of fossil fuel usage, repairing of appliances, and reduction of wastage or recycling (Tripathi & Singh, 2016).

The current study adds information about pro-environmental behaviour and marketing strategies to influence environmental behaviour. Using disposable cups, public transportation, a bike, or even walking, printing on both sides of the page to reduce paper usage, conserving water (e.g., limiting the amount of water used when taking a shower or washing your hands), recycling (such as plastic, glass, reusing paper, and containers), and saving electricity (such as turning off lights when not in use) are just a few examples of actions that can have an impact on pro-environmental behaviour (e.g., disposable cups). Sociodemographics like gender, age, or place of residence, as well as political stance, values, and life beliefs, can also impact pro-environmental behaviour (Yusliza *et al.*, 2020).

#### **Availability of green products as a moderator**

The accessibility of green products is crucial when examining green consumer behaviour. Most studies revealed that the main obstacles to buying environment-friendly products were limited availability and accessibility issues. Conversely, the simplicity of obtaining green goods positively impacted green purchasing habits. Consumers appreciate products that are simple to find and don't like to spend a lot of time looking for green options. Additionally, when making purchases, buyers typically strive for convenience and steer clear of actions that involve more work. Therefore, it can be argued that barriers to purchasing green goods include their limited availability and difficulty obtaining them, which widens the gap between consumers' intentions and behaviour (Joshi & Rahman, 2015).

On the other hand, according to a poll performed by a researcher (Ali *et al.*, 2011), Pakistani customers are very worried about the environment. They would be open to purchasing green products as long as the cost and quality are comparable to those of their conventional counterparts. Price sensitivity, brand awareness, product availability, and benefits significantly impact customers' propensity to purchase "green" goods (Walia *et al.*, 2020). Customers frequently desire to buy green items; their lack of availability prevents them from taking action (Iris Vermeir, 2006; Vermeir & Verbeke, 2006). The lack of availability and poor marketing of green products, according to Mainieri *et al.* (1997), is one of the key causes of consumers' trailing environmental consciousness behind pre-environmental behaviour. Researchers also concur that, in addition to having more environmentally and socially responsible corporations, making green products accessible to customers is a key strategy for converting them to environment-friendly consumers (Kaufmann *et al.*, 2012).



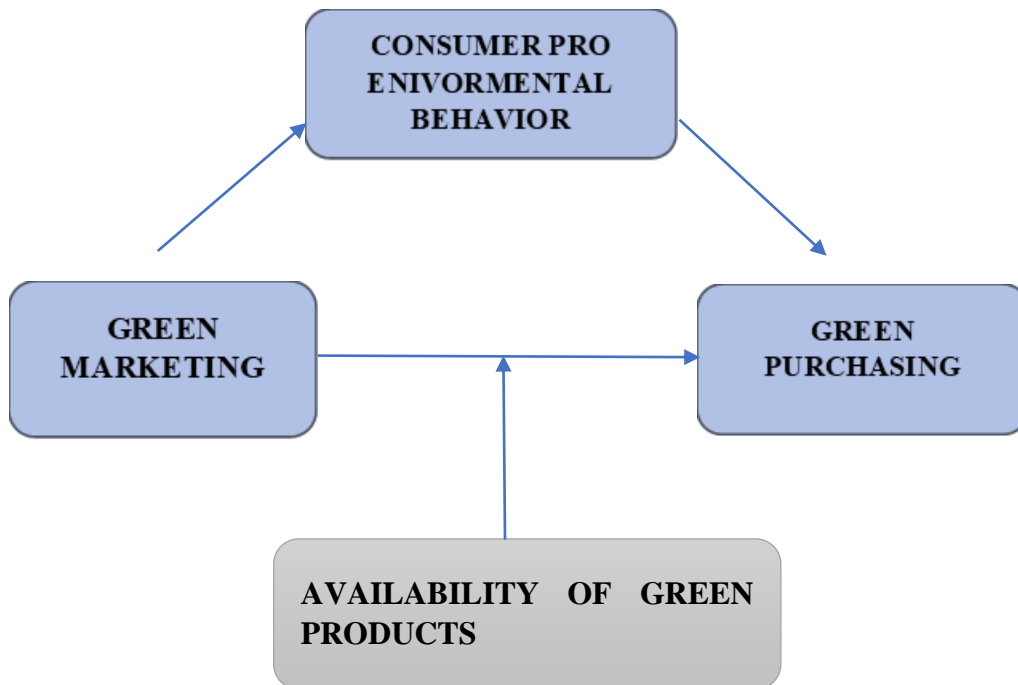
### Proposed Study Hypotheses

**H1:** There is a positive and significant association between green marketing and green purchasing.

**H2:** There is a positive and significant association between green marketing and consumer pro-environmental behaviour.

**H3:** Consumer pro-environmental behaviour mediates the relationship between GM and GP.

**H4:** Availability of green products moderates the relationship between GM and GP.



### Research model

#### Methodology

Primary data will be gathered first and then analysed to assess the study interests (Rahi, Alghizzawi, Ahmad, *et al.*, 2022; Rahi, Alghizzawi, & Ngah, 2022). The first stage of the study involves conducting a thorough search on the Internet and in research databases for publications, reports, and technical information about eco-marketing strategies and eco-consumer studies in general (Rahi, 2022a, 2022b; Rahi & Abd. Ghani, 2019b; Rahi, Khan, *et al.*, 2021a). The compilation, evaluation, and interpretation of primary data in the overall context will be made easier with the help of the secondary data analysis, i.e. publications and reports were also consistent with prior studies (Rahi, Khan, *et al.*, 2021b; Rahi, Othman Mansour, *et al.*, 2021). The goal of the current study is to clarify the relationship between green marketing, pro-environmental behaviour, the availability of green goods, and green purchasing (Rahi & Abd Ghani, 2021; Rahi, Khan, *et al.*, 2021b; Rahi, Othman Mansour Majeed, *et al.*, 2019). A questionnaire-style survey instrument and measurement scales will be created to test the study model



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

(Rahi & Abd. Ghani, 2019c; Rahi & Abd. Ghani, 2019; Rahi, Abd. Ghani, *et al.*, 2019; Rahi, Alnaser, *et al.*, 2019). The proposed hypothesis will be tested using the finalised version of the questionnaire using a convenient sampling technique (Rahi & Abd. Ghani, 2019a; Rahi & Ghani, 2018). SEM software will assess the study interests (Rahi *et al.*, 2018).

### **Conclusion**

Customer demand and environmental authorities create the pressure required to ensure a cleaner environment, especially given Pakistan's rapid rate of industrial sector growth and the very detrimental consequences on the environment. According to this study, there is a gap between market values, consumer green behaviour, and the availability of green goods. This study looked at various customer pro-environment behaviours and demonstrated how green marketing strategies would influence consumers' preferences for greener products. Where views and convictions have been appropriately defined, green conduct is aligned with individual customer preferences, and product characteristics are desirable, pro-environmental principles are more likely to result in environmental friendliness. The lack of green items on the market is a significant barrier to purchasing green products. Pakistani producers still need to find a green market, but due to ineffective marketing, consumers are unaware of it. However, Pakistani businesses will break out of this vicious cycle by adopting the sustainability agenda, participating in green projects, and raising customer awareness. Marketers who work for consumer organisations that support the environment under-utilise the Pakistani market for eco-friendly products. According to this study, marketing strategies are more effective in promoting green products and influencing consumers' pro-environmental behaviour.

### **References**

- Ali, A., Khan, A. A., Ahmed, I., & Shahzad, W. (2011). Determinants of Pakistani consumers' green purchase behaviour: Some insights from a developing country. *International Journal of Business and Social Science*, 2(3), 217-226.
- Bank, W. (2015). "World Bank. 2015. World Development Indicators 2015. <https://www.worldbank.org/en/home>
- Bhalerao, V. R., & Deshmukh, A. (2015). Green marketing: Greening the 4 Ps of marketing. *International journal of knowledge and research in management & E-commerce*, 5(2), 5-8.
- Chaudhuri, A. a. H., M.B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty". *Journal of marketing*, Vol. 65 No. 62, pp. 81-93.
- Dibb, S. S., Lyndon; Pride, William M. and Ferrell, O.C. (2005). (2005). *Marketing: Concepts and Strategies*. 5th Edition. <http://www.dibbmarketing.com/info.htm>
- do Paço, A., Shiel, C., & Alves, H. (2019). A new model for testing green consumer behaviour. *Journal of cleaner production*, 207, 998-1006.
- FuiYeng, W., & Yazdanifard, R. (2015). Green marketing: A study of consumers' buying behaviour in relation to green products. *Global Journal of Management and Business Research: E Marketing*, 15(5), 16-23.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Iris Vermeir, W. V. (2006). Sustainable Food Consumption: Exploring the Consumer “Attitude – Behavioural Intention” Gap. *Journal of Agricultural and Environmental ethics*.
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic management review*, 3(1-2), 128-143.
- Kaufmann, H. R., Panni, M. F. A. K., & Orphanidou, Y. (2012). Factors affecting consumers’ green purchasing behaviour: An integrated conceptual framework. *Amfiteatru Economic Journal*, 14(31), 50-69.
- Kinoti, M. W. (2011). Green marketing intervention strategies and sustainable development: A conceptual paper. *International Journal of Business and Social Science*, 2(23).
- Mainieri, T., Barnett, E. G., Valdero, T. R., Unipan, J. B., & Oskamp, S. (1997). Green buying: The influence of environmental concern on consumer behaviour. *The Journal of social psychology*, 137(2), 189-204.
- Mansoor, M., & Wijaksana, T. I. (2021). Predictors of pro-environmental behaviour: Moderating role of knowledge sharing and mediatory role of perceived environmental responsibility. *Journal of Environmental Planning and Management*, 1-19.
- organiztaion, w. H. (2018). *First Global Conference on Air Pollution and Health*.
- Pandley, R. (2021). Green Marketing Awareness and Its Effect on Consumer Buying Behaviour. *Int. J. Multidiscip. Innov. Res*, 1, 31-37.
- Peattie, K. (2001). Towards sustainability: the third age of green marketing. *The marketing review*, 2(2), 129-146.
- Peattie, K. (2010). Green consumption: behaviour and norms. *Annual review of environment and resources*, 35(1), 195-228.
- Rahi, S. (2022a). Assessing individual behaviour towards adoption of telemedicine application during COVID-19 pandemic: evidence from emerging market. *Library Hi Tech*, 40(2), 394-420. <https://doi.org/10.1108/lht-01-2021-0030>
- Rahi, S. (2022b). Investigating the role of employee psychological well-being and psychological empowerment with relation to work engagement and sustainable employability. *International Journal of Ethics and Systems*, 38(2), 266-285. <https://doi.org/10.1108/ijoes-12-2020-0200>
- Rahi, S., & Abd Ghani, M. (2021). Examining internet banking user’s continuance intention through the lens of technology continuance theory and task technology fit model. *Digital Policy, Regulation and Governance*, 23(5), 456-474. <https://doi.org/10.1108/dprg-11-2020-0168>
- Rahi, S., & Abd. Ghani, M. (2019a). Does gamified elements influence on user’s intention to adopt and intention to recommend internet banking? *International Journal of Information and Learning Technology*, 36(1), 2-20. <https://doi.org/doi:10.1108/IJILT-05-2018-0045>
- Rahi, S., & Abd. Ghani, M. (2019b). Integration of expectation confirmation theory and self-determination theory in internet banking continuance intention. *Journal of Science and Technology Policy Management*, 10(3), 533-550. <https://doi.org/10.1108/jstpm-06-2018-0057>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Rahi, S., & Abd. Ghani, M. (2019c). Investigating the role of UTAUT and e-service quality in internet banking adoption setting. *The TQM Journal*, 31(3), 491-506.

Rahi, S., & Abd. Ghani, M. (2019). Integration of DeLone and McLean and self-determination theory in internet banking continuance intention context. *International Journal of Accounting & Information Management*, 27(3), 512-528. <https://doi.org/10.1108/ijaim-07-2018-0077>

Rahi, S., Abd. Ghani, M., & Hafaz Ngah, A. (2019). Integration of unified theory of acceptance and use of technology in internet banking adoption setting: Evidence from Pakistan. *Technology in Society*, 58, 101120. <https://doi.org/https://doi.org/10.1016/j.techsoc.2019.03.003>

Rahi, S., Alghizzawi, M., Ahmad, S., Munawar Khan, M., & Ngah, A. H. (2022). Does employee readiness to change impact organisation change implementation? Empirical evidence from emerging economy. *International Journal of Ethics and Systems*, 38(2), 235-253. <https://doi.org/10.1108/ijoes-06-2021-0137>

Rahi, S., Alghizzawi, M., & Ngah, A. H. (2022). Factors influence user's intention to continue use of e-banking during COVID-19 pandemic: the nexus between self-determination and expectation confirmation model. *EuroMed Journal of Business*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/emjb-12-2021-0194>

Rahi, S., Alnaser, F. M., & Ghani, M. A. (2019). Designing Survey Research: Recommendation for Questionnaire Development, Calculating Sample Size and Selecting Research Paradigms. *Economic and Social Development: Book of Proceedings*, 1157-1169.

Rahi, S., Ghani, M., & Ngah, A. (2018). A structural equation model for evaluating user's intention to adopt internet banking and intention to recommend technology. *Accounting*, 4(4), 139-152.

Rahi, S., & Ghani, M. A. (2018). A Structural Equation Modeling (SEM-AMOS) for Investigating Brand Loyalty and Customer's Intention towards Adoption of Internet Banking *Economic and Social Development (Book of Proceedings)*, 29th International Scientific Conference on Economic and Social,

Rahi, S., Khan, M. M., & Alghizzawi, M. (2021a). Extension of technology continuance theory (TCT) with task technology fit (TTF) in the context of Internet banking user continuance intention. *International Journal of Quality & Reliability Management*, 38(4), 986-1004. <https://doi.org/10.1108/ijqrm-03-2020-0074>

Rahi, S., Khan, M. M., & Alghizzawi, M. (2021b). Factors influencing the adoption of telemedicine health services during COVID-19 pandemic crisis: an integrative research model. *Enterprise Information Systems*, 15(6), 769-793. <https://doi.org/10.1080/17517575.2020.1850872>

Rahi, S., Othman Mansour Majeed, M., Alghizzawi, M., & Alnaser Feras, M. (2019). Integration of UTAUT model in internet banking adoption context: The mediating role of performance expectancy and effort expectancy. *Journal of Research in Interactive Marketing*, 13(3), 411-435. <https://doi.org/10.1108/jrim-02-2018-0032>

Rahi, S., Othman Mansour, M. M., Alharafsheh, M., & Alghizzawi, M. (2021). The post-adoption behaviour of internet banking users through the eyes of self-determination theory and expectation



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

confirmation model. *Journal of Enterprise Information Management*, 34(6), 1874-1892.

<https://doi.org/10.1108/jeim-04-2020-0156>

Sheng, G., Xie, F., Gong, S., & Pan, H. (2019). The role of cultural values in green purchasing intention: Empirical evidence from Chinese consumers. *International journal of consumer studies*, 43(3), 315-326.

Singh, D. H., & Sharma, A. (2020). Green Marketing: A Conceptual Study on Initiatives and Start-ups Taken By Industries for Making Green India. *Studies in Indian Place Names*, 40(56), 1086-1092.

Tripathi, A., & Singh, M. P. (2016). Determinants of sustainable/green consumption: a review. *International Journal of Environmental Technology and Management*, 19(3-4), 316-358.

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer “attitude–behavioural intention” gap. *Journal of Agricultural and Environmental ethics*, 19(2), 169-194.

Walia, S. B., Kumar, H., & Negi, N. (2020). Impact of brand consciousness, perceived quality of products, price sensitivity and product availability on purchase intention towards ‘green’ products. *International Journal of technology management & sustainable development*, 19(1), 107-118.

Yue, B., Sheng, G., She, S., & Xu, J. (2020). Impact of consumer environmental responsibility on green consumption behaviour in China: The role of environmental concern and price sensitivity. *Sustainability*, 12(5), 2074.

Yusliza, M. Y., Amirudin, A., Rahadi, R. A., Nik Sarah Athirah, N. A., Ramayah, T., Muhammad, Z., Dal Mas, F., Massaro, M., Saputra, J., & Mokhlis, S. (2020). An investigation of pro-environmental behaviour and sustainable development in Malaysia. *Sustainability*, 12(17), 7083.

Zhang, J., Lu, G., Skitmore, M., & Ballesteros-Pérez, P. (2021). A critical review of the current research mainstreams and the influencing factors of green total factor productivity. *Environmental Science and Pollution Research*, 28(27), 35392-35405.

Zhu, Q., & Sarkis, J. (2016). Green marketing and consumerism as social change in China: Analysing the literature. *International Journal of Production Economics*, 181, 289-302.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Exploring Factors which Influence Customer Behaviour to Use Drone-Based Innovative Food Serving Restaurants**

Dr. Samar Rahi

University of the Punjab, Lahore

Fazeela Shabir

University of the Punjab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore

Dr. Talat Islam

University of the Punjab, Lahore

Fiza Mubbasher

Kaizen High School

**Abstract**

The purpose of this study is to examine factors that influence consumer attitude and behavioural intention to use drone-based food serving restaurants. It is expected that attitude influences customer behavioural intentions positively backing by perceived innovativeness and consumer motivation. The sample size of this study is 300 individual. These individual will be approached while their visit to different restaurants. For data analysis all factors like perceived innovativeness, consumer motivation functional, hedonic and cognitive motivation will be calculated with structural equation modelling. Aside of direct relationship the moderating impact of image will be tested between user attitude and behavioural intention of customer. This study is significant as it discuss innovative trends in food industry and examines consumer attitude towards acceptance and use of innovate based restaurants.

**Introduction**

From the past ten years, technological advancements have significantly improved the layout of retail supply chains. Adopting new technology has shown to be an effective way to get a substantial competitive edge in the hospitality business. The commercial use of drone like in food deliver services has attained great attraction. Customers nowadays are drawn to the novelty of meal delivery services. Mobile applications, tablet computers, self-service approaches, and service robotics are just a few aspects of how new services and systems are actively being implemented. Drones have become more popular throughout the fourth industrial revolution. A consumer's perception of a product or service's innovation is a key component in determining attitude and behavioural intention. In the restaurant industry, perceived innovativeness has been identified as a crucial element of successful services. The primary factors influencing customer attitude and behaviour with regard to the desire to purchase new technology services are considered to be the functional, hedonic, cognitive, and social facets of motivation. Functional motivation has been proposed as a key predictor of attitude in this setting, increasing customers' behavioural intentions toward a certain technology. People employ new technology to arouse their senses and hedonic motivation drives consumer to use new services for fun and excitement. After weighing all of the benefits and drawbacks of a new technological product or service, individuals with high levels of cognitive motivation are more likely to use it. When consumer



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

wants to be socially unique he/she prefer to use new technological products and services. It is incredibly popular in research to construct the research framework supporting theory. Theory of planned behaviour, a widely accepted social psychology theory, has been utilized to explain attitude and behavioural intentions in the context of contemporary technology.

Recent technological improvements have impacted food delivery methods, as well as customer attitudes. The ideas of perceived innovation and consumer motivation are used to address consumer attitudes and behavioural intentions concerning drone base services and the moderating role of image of drone base restaurants. According to studies on drone restaurants, there aren't many work-related drone base restaurants in developed countries there aren't many work-related drone base restaurants in developing countries, according to studies on drone restaurants. This study is going to investigate the factors that affect the customer attitude and behaviour intention towards droned base food serving restaurants. This research will advance understanding of the following topics: the alliance between consumer attitudes and behavioural intentions to patronize novel drone base restaurants; the correlation between those intentions and attitudes of consumers; and the moderating impact of drone base restaurants' perceptions. The existing literature fills a gap in the body of literature crucial data to experts in the food delivery service sector through into the process of the study and its findings.

## **Literature Review**

### **Perceived innovativeness**

There has been ongoing research on perceived innovation within the framework of modern innovation (Chauhan et al., 2019). In academic studies pertaining to the use of a new technology, perceived innovativeness has gained great attention (Frank et al., 2015). Perceived innovativeness has been recognized as an important component of effective services in the restaurant sector, according to recent studies. Perceived innovativeness has been acknowledged as a variable of substantial relevance by professionals in the travel and restaurant sectors (Jin et al., 2016; Wang et al., 2018). The perceived level of innovation and progress above present possibilities was defined as perceived innovativeness (Lowe & Alpert, 2015). Consumer perceived innovativeness is also described as the propensity to purchase novel goods as opposed to sticking to established consumption habits (Rašković et al., 2016). Innovativeness is one of the key indicators of a technical product or service's ability to stand out from the competition (Lowe & Alpert, 2015). Therefore, it may be concluded that people's attitudes are significantly influenced by how inventive they are considered to be. These associations in the consumer acceptability of technology are supported by the available studies (Mamun & Kim, 2018; Shams et al., 2015).

Hypothesis1. Perceive innovativeness positively effect to attitude.

### **Functional Motivation**

Functional demands are what motivate people to look for items that address consumption-related issues, Several studies indicate practical factors for utilizing a product, including (Ozturk et al., 2016). In other words, functional motivation incorporates useful and task-specific features (Hwang, Lee, et al., 2019). Functional motivation emphasizes improved quality and timely accomplishment of work and is driven by the functional capabilities of innovations (Choe et al., 2021; Hwang, Kim, et al., 2021). It suggests



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

that when selecting new technical goods or services, consumers who are highly functionally motivated are more likely to give comfort, time savings, and dependability careful consideration (Stock et al., 2015). Buyers who value convenience and improved efficiency when selecting new technological products or services are therefore those who have significant concentrations of functionally motivated innovation (Ozturk et al., 2016). To encourage customers to adopt an attitude toward novel goods and services, professionals should first concentrate on the functional motivation of consumers. Functional Motivation influence consumer behaviour towards new technological products and services (Hwang, Choe, et al., 2021). A considerable improvement in attitude was seen with functional motivation (Ozturk et al., 2016). Accordingly, customers are more likely to see using drone-delivered meals favourably if they believe the services are effective. The functional aspect's significance has been emphasized in technological research.

Hypothesis2. Functional motivation positively effect to attitude

### **Hedonic Motivation**

The idea of hedonic motivation is associated with sensory behaviour (Han et al., 2018). The most significant theoretical innovation is thought to be hedonic motivation hedonic motivation, which is the enjoyment or pleasure gained from using technology, is a key factor in determining whether or not a person will embrace and use that technology (Alalwan, 2018; Baabdullah et al., 2019). Consumers who are particularly focused on the emotional aspect of things, including experience, pride, enjoyment, social standing, feelings, and social representations, engage in hedonistic motivation (Mufarrohah & Yuniati, 2016). If a customer has a high degree of hedonic motivation, then when choosing a new technological product or service, he or she is more likely to priorities fun and excitement (Reinhardt & Gurtner, 2015). It was demonstrated that there was a substantial connection between hedonic motivation and attitude. Using the principle of technology adoption and utilization (Baabdullah, 2018). Hedonic incentives have clarified why users adopted certain technologies in connection to enjoyment (Hamari & Keronen, 2016). Fun and pleasure play an important role to use new technological services when people believe that services are more enjoyable they are open minded towards use it (Kapsler & Abdelrahman, 2020). This is explained by the fact that people are motivated by an incredible time and fun when using technology services. Consumers' attitude to employ drone delivery services will grow in response to positive hedonic motivation. A few elements support hedonic motivation that is favourable, First, many considered drone delivery services to be an environmentally sustainable choice because they might potentially minimize greenhouse gas emissions and energy use per shipment (Choe et al., 2021). Hedonic motivation also boosts people's confidence in using a certain type of information technology, when people are highly driven by hedonic motives; they develop trust in the use of technology (Alalwan et al., 2015).

Hypothesis3. Hedonic motivation positively effect to attitude.

### **Cognitive Motivation**

Cognitive motivation is an element of user innovation that's also motivated by an ability to discover and understand things (Caricati & Raimondi, 2015). Consumers Motivated by the desire for intellectual stimulating is called cognitive (Hwang, Kim, et al., 2019). The reality is that people accept new technology more when they have a high drive for cognitive motivation (Hwang, Kim, et al., 2019).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

People who have high cognitive motivation are significantly more likely to try a modern technological product or service after weighing its advantages and disadvantages (Hwang, Lee, et al., 2019). Consumers' attitudes are influenced by their cognitive motivation. While selecting to use, they will first study a variety of features of the service and rationally weigh the benefits and drawbacks of doing so (Kasper & Abdelrahman, 2020).

Hypothesis 4. Cognitive motivation positively effect to attitude.

### **Social Motivation**

The intersection of social influence and social recognition can be used to define social motivation (Wu & Chen, 2017). It is usually used to anticipate an individual's social uniqueness to have leadership, symbolism, or prominence, a component of consumer motivation that is driven by the need to distinguish out is referred to as social motivation (Caricati & Raimondi, 2015). The consumer aim to enhance their reputation by acquiring innovative goods and services, social motivation is seen as a crucial component of doing so (Hwang & Lyu, 2018). In addition to influencing interest in usage social motivation certainly plays a significant part in forming attitudes toward utilizing new technical items and services (Hwang, Kim, et al., 2021). Additionally, empirical research have emphasized the significance of SMO in implementing a new technology product or service, socially motivated create favourable attitude towards use of innovative products and services (Hwang, Kim, et al., 2019). This indicates that customers are often more inclined to consider the services favourably if they think that when using drone food delivery services can maybe catch many others (Reinhardt & Gurtner, 2015). Consumer attitudes toward using drone food delivery services will be influenced by the social motive behind the technology. For instance, adopters of drone technology attract attention from others, distinguish themselves from the crowd, and/or develop into public intellectuals in their industry (Kasper & Abdelrahman, 2020). Businesses that provide food services highlight that by implementing drone delivery services they may differentiate themselves from others, which lead positive attitude towards drone base restaurant (Hwang, Cho, et al., 2019).

Hypothesis5. Social motivation positively effect to attitude.

### **Theory of Planned Behaviour**

Widely used social psychology theory known as the TPB has been used to explain behavioural intentions in the setting of modern technology (Yu et al., 2018). The theory of planned behaviour is an expansion of the theory of reasoned action, and it contends that behaviour is influenced by perceived behavioural control (PBC) and subjective norms (SBN). A widely used model of attitude-behaviour interactions using expectancy-value is the theory of planned behaviour (TPB) it has been somewhat successful at foreseeing a range of behaviours (Ajzen, 2002). Normative beliefs that are subject to societal expectations to embrace or oppose technology are known as subjective norms (Young & Kent, 1985). An individual is assumed to perceive a higher level of the subjective norm whenever they experience a societal compulsion to perform a particular activity (Ajzen, 1985). Researchers regularly utilize the TPB to explore how customers use technology like social robots, e-services, and drones for food delivery in addition to using it to examine and define consumers' behaviour intentions (Giger & Piçarra, 2017). Prior research on technology-based services Support subjective norm as a key factor in how often services are used (Sykes et al., 2009). Empirical research has repeatedly argued that **SBN**





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

plays a key influence in predicting behaviour intentions (Han & Hyun, 2017).

Hypothesis6. Subjective norms positively effect to attitude.

Hypothesis7. Perceive behavioural control positively effect to attitude.

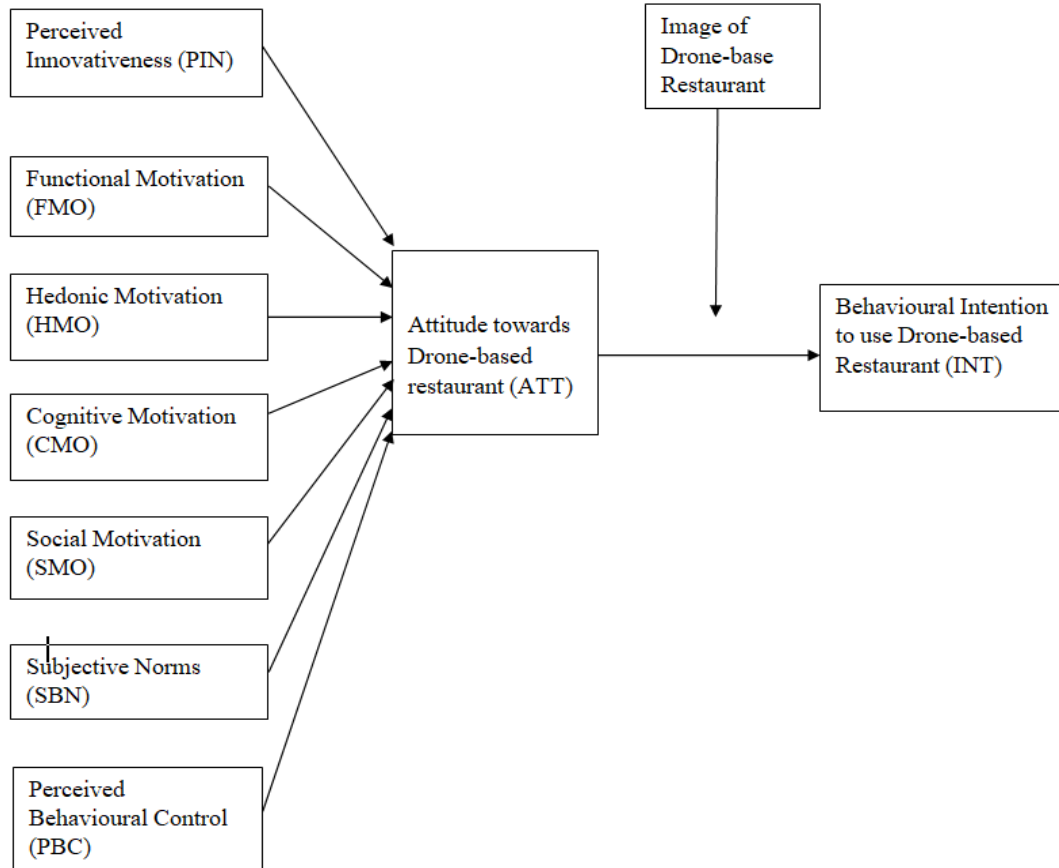
### **Behavioural Intention to use Drone-based Restaurant**

The intention is the level of personal readiness to engage in a specific behaviour now or not (Hwang, Kim, et al., 2019). Research demonstrated that customers are more likely to have strong behavioural intentions when they have a positive attitude when doing online purchasing (Wu & Ke, 2015). Customers' sentiments and their behavioural intentions to use hotel self-service technologies were discovered to be strongly linked analyzed public opinion on the topic of potential robotic employment and kept track of the expanding use of robotics in the hospitality sector (Kaushik et al., 2015). Their research, which was based on 260 responses, confirmed the idea that attitudes significantly influenced users' behavioural intentions (Ivanov et al., 2018). (Ivanov & Webster, 2019) highlighted the very unique nature of current drone-based food delivery services and looked into how consumers' behavioural intentions were formed. Integrated the theory of planned behaviour to comprehend people's behavioural intentions to adopt drone food delivery service (Kim & Hwang, 2020). The previous research has discovered that attitude has a favourable impact on behavioural intention, for instance, attitude influences behavioural intent to buy green items in a constructive way(Paul et al., 2016). Similar conclusions about the usage of drones for food delivery were reached during COVID-19 when studies say that attitude had a positive influence on behavioural intention (Kim et al., 2021). Hypothesis8. Attitude towards Drone base food delivery positively effect to behavioural intention.

### **Image of Drone-base Restaurant**

Technology-based advances in the hotel sector improve the field of service efficiency, which includes service automation (Hwang, Kim, et al., 2019). For the hotel industry, service artificial intelligence and automation offer a huge chance to increase efficiency and profitability, provide dependable customer satisfaction, and give customers some influence over the process of providing services (Mathew, 2015). Self-service techniques, robotic systems, tablet devices, smart phone apps, and other tech-enabled products and procedures are all just a few instances of how they are currently getting proactively utilized (Ivanov et al., 2017). Drones were initially created for military use, but they have subsequently become modified and employed for a variety of applications. Drones are now more frequently used as operational tools in recent years (Choe et al., 2021). Unmanned aircraft that can fly on their own in both natural and artificial environments are known as drones (Floreano & Wood, 2015). Drone use has received a lot of attention due to its huge potential in a variety of fields, including agriculture, control monitoring, disaster relief, environmental protection, and transportation (Frachtenberg, 2019). Hypothesis9. Image of Drone-base Restaurant has moderating role on attitude and behavioural intention.







Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Research Methodology**

Although there are many other categories for research methodologies, quantitative and qualitative methods predominate (Rahi, 2017). A qualitative approach is employed to gather comprehensive data on a particular topic. The quantitative research approach assumes that one person represents the emotions and thoughts of the community and exempts society's thoughts and emotions, which are equally crucial to comprehend. The explanatory culture frequently employs this strategy (Rahi, 2017). A scientific methodology, the quantitative method has its roots in the positivist worldview (Grinnell Jr & Unrau, 2010). To gather and improve knowledge for problem-solving in quantitative research, rational, feasible, logical, analytical, and rigorous procedures are used (Burns & Grove, 2005). Its styles, which may be exploratory or not, are focused on obtaining accurate and reliable measurements (Rahman, 2020). This study uses a quantitative approach because it deals with an existing theory and examines it using statistical methods rather than developing a new theory with the reference of (Rahi, 2017).

In survey questionnaires, Likert scale questions are often used to evaluate findings and attitudes (Buttle, 1996). Likert point scales range from 5 to 9 points, however 5 and 7 point scales are most frequently employed in research surveys (Rahi, 2017). (Rahman, 2020) have claimed that five to seven-point Likert scales can be used to properly assess the components, even though the study's primary objective is to examine people's behaviour. A 7 point Likert scale was used in this study for more accurate results, citing all the references.

Sampling refers to the process of choosing a subset of the population for research out of all the individuals or objects that one would like to understand generally (Rahi, 2017). Population of this study is consumer of hotel industry. Target to services industry specially hospitality industry. The primary focus is on the drone base hotel industry. Data collection from the entire population is not feasible due to time and budgetary restrictions, that's why using convenience sampling approach. Consumers of restaurants received questionnaires for the actual survey. 500 people received an email invitation, and 300 responded to the survey.

The data is evaluated systematically using the structural model. It is useful to know if the hypothesis conveyed by the structural model is supported by facts (Urbach & Ahlemann, 2010). Measurement model can be tested by testing internal consistency, indicator reliability, convergent validity and discriminant validity of the data.

## **Conclusion and recommendations**

The goal of this study was to determine how perceived innovativeness and consumer motivation affected customers' attitudes toward drone base restaurants and their intentions to use such restaurants. Additionally, the image of the drone base restaurants was assessed for its moderating influence. The findings highlight several aspects that the restaurant and food service industries should think about when deciding whether to use drone technology. The analysis' findings showed that perceptions of innovation were a significant factor in determining how consumers felt about services that used drones to deliver food. This finding is in agreement with earlier research (Hwang, Lee, et al., 2019), that provided unbiased approval for the significant impact of perceived innovativeness on consumer attitudes toward the adoption of novel technologies. The most striking observation was that functional motivation plays a larger role in forming a favourable opinion of drone-delivered foods. It has



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

been discovered that functional motivation significantly affects attitude, meaning that if participants believed that drone food delivery is efficient, appropriate, and helpful in order to save time that assessment motivated them to have a favourable attitude toward drone food delivery services Consumers increasingly want thrills, pleasure, and entertaining when they buy a service. Similar to this, testing out new technologies such as using drones to deliver food has valuable benefits. The results of this study showed that hedonic motivation is significant when using drone delivery services for food (Hwang, Choe, et al., 2021). It has recently been suggested that individuals are more likely to be enthusiastic about using modern innovation services if they are cognitively motivated by those services. Related to this, there is a favourable correlation between cognitive motivation and attitude. Recently, researchers found a significant connection among cognitive motivation and attitude in the setting of drone food delivery services (Hwang, Kim, et al., 2019). Study revealed that people who are socially motivated are more likely to feel favourably about foods delivered by drone (Hwang, Kim, et al., 2019). The respondents' attitudes toward drone food delivery services are positively associated with their intention to utilize them (Kim & Hwang, 2020). The moderating role of image of drone base restaurant has positive effect.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## References

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action control* (pp. 11-39). Springer.
- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior 1. *Journal of applied social psychology*, 32(4), 665-683.
- Alalwan, A. A. (2018). Investigating the impact of social media advertising features on customer purchase intention. *International Journal of Information Management*, 42, 65-77.
- Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., Lal, B., & Williams, M. D. (2015). Consumer adoption of Internet banking in Jordan: Examining the role of hedonic motivation, habit, self-efficacy and trust. *Journal of Financial Services Marketing*, 20(2), 145-157.
- Baabdullah, A. M. (2018). Consumer adoption of Mobile Social Network Games (M-SNGs) in Saudi Arabia: The role of social influence, hedonic motivation and trust. *Technology in society*, 53, 91-102.
- Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Kizgin, H., & Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 44, 38-52.
- Burns, N. A., & Grove, S. K. (2005). *Study guide for the practice of nursing research: conduct, critique, and utilization*. WB Saunders Company.
- Buttle, F. (1996). SERVQUAL: review, critique, research agenda. *European Journal of marketing*.
- Caricati, L., & Raimondi, M. (2015). THE MOTIVATED CONSUMER INNOVATIVENESS SCALE: INITIAL ITALIAN VALIDATION. *TPM: Testing, Psychometrics, Methodology in Applied Psychology*, 22(3).
- Chauhan, V., Yadav, R., & Choudhary, V. (2019). Analyzing the impact of consumer innovativeness and perceived risk in internet banking adoption: A study of Indian consumers. *International Journal of Bank Marketing*.
- Choe, J. Y., Kim, J. J., & Hwang, J. (2021). Innovative marketing strategies for the successful construction of drone food delivery services: Merging TAM with TPB. *Journal of Travel & Tourism Marketing*, 38(1), 16-30.
- Floreano, D., & Wood, R. J. (2015). Science, technology and the future of small autonomous drones. *nature*, 521(7553), 460-466.
- Frachtenberg, E. (2019). Practical drone delivery. *Computer*, 52(12), 53-57.
- Frank, B., Enkawa, T., Schvaneveldt, S. J., & Torrico, B. H. (2015). Antecedents and consequences of innate willingness to pay for innovations: Understanding motivations and consumer preferences of prospective early adopters. *Technological Forecasting and Social Change*, 99, 252-266.
- Giger, J.-C., & Piçarra, N. (2017). Who wants to work with social robots? Using the theory of reasoned action and the theory of planned behavior to predict intention to work with social robots. Book of Proceedings,



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Grinnell Jr, R. M., & Unrau, Y. A. (2010). *Social work research and evaluation: Foundations of evidence-based practice*. Oxford University Press.

Hamari, J., & Keronen, L. (2016). Why do people buy virtual goods? A literature review. 2016 49th Hawaii International Conference on System Sciences (HICSS),

Han, H., & Hyun, S. S. (2017). Drivers of customer decision to visit an environmentally responsible museum: Merging the theory of planned behavior and norm activation theory. *Journal of Travel & Tourism Marketing*, 34(9), 1155-1168.

Han, H., Lee, M. J., & Kim, W. (2018). Role of shopping quality, hedonic/utilitarian shopping experiences, trust, satisfaction and perceived barriers in triggering customer post-purchase intentions at airports. *International Journal of Contemporary Hospitality Management*.

Hwang, J., Cho, S.-B., & Kim, W. (2019). Consequences of psychological benefits of using eco-friendly services in the context of drone food delivery services. *Journal of Travel & Tourism Marketing*, 36(7), 835-846.

Hwang, J., Choe, J. Y., Choi, Y. G., & Kim, J. J. (2021). A comparative study on the motivated consumer innovativeness of drone food delivery services before and after the outbreak of COVID-19. *Journal of Travel & Tourism Marketing*, 38(4), 368-382.

Hwang, J., Kim, H., & Kim, W. (2019). Investigating motivated consumer innovativeness in the context of drone food delivery services. *Journal of Hospitality and Tourism Management*, 38, 102-110.

Hwang, J., Kim, J. J., & Lee, K.-W. (2021). Investigating consumer innovativeness in the context of drone food delivery services: Its impact on attitude and behavioral intentions. *Technological Forecasting and Social Change*, 163, 120433.

Hwang, J., Lee, J.-S., & Kim, H. (2019). Perceived innovativeness of drone food delivery services and its impacts on attitude and behavioral intentions: The moderating role of gender and age. *International Journal of Hospitality Management*, 81, 94-103.

Hwang, J., & Lyu, S. O. (2018). Understanding first-class passengers' luxury value perceptions in the US airline industry. *Tourism Management Perspectives*, 28, 29-40.

Ivanov, S., & Webster, C. (2019). Perceived appropriateness and intention to use service robots in tourism. In *Information and communication technologies in tourism 2019* (pp. 237-248). Springer.

Ivanov, S., Webster, C., & Garenko, A. (2018). Young Russian adults' attitudes towards the potential use of robots in hotels. *Technology in society*, 55, 24-32.

Ivanov, S. H., Webster, C., & Berezina, K. (2017). Adoption of robots and service automation by tourism and hospitality companies. *Revista Turismo & Desenvolvimento*, 27(28), 1501-1517.

Jin, N., Line, N. D., & Merkebu, J. (2016). Examining the impact of consumer innovativeness and innovative restaurant image in upscale restaurants. *Cornell Hospitality Quarterly*, 57(3), 268-281.

Kapser, S., & Abdelrahman, M. (2020). Acceptance of autonomous delivery vehicles for last-mile delivery in Germany—Extending UTAUT2 with risk perceptions. *Transportation Research Part C: Emerging Technologies*, 111, 210-225.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Kaushik, A. K., Agrawal, A. K., & Rahman, Z. (2015). Tourist behaviour towards self-service hotel technology adoption: Trust and subjective norm as key antecedents. *Tourism Management Perspectives*, 16, 278-289.

Kim, J. J., & Hwang, J. (2020). Merging the norm activation model and the theory of planned behavior in the context of drone food delivery services: Does the level of product knowledge really matter? *Journal of Hospitality and Tourism Management*, 42, 1-11.

Kim, J. J., Kim, I., & Hwang, J. (2021). A change of perceived innovativeness for contactless food delivery services using drones after the outbreak of COVID-19. *International Journal of Hospitality Management*, 93, 102758.

Lowe, B., & Alpert, F. (2015). Forecasting consumer perception of innovativeness. *Technovation*, 45, 1-14.

Lyu, J., Sadachar, A., & Hahn, K. (2017). Does consumer innovativeness matter? An examination of multi-dimensional consumer innovativeness motivation on intention to adopt 3D printed fashion products. *International Textile and Apparel Association Annual Conference Proceedings*,

Mamun, M. R. A., & Kim, D. (2018). The effect of perceived innovativeness of student response systems (SRSS) on classroom engagement.

Mathew, B. (2015). A study on changing trends in online shopping of Indian consumers in apparel segment. *International Journal of Applied Research*, 1(9), 207-214.

Mufarrohah, U., & Yuniati, T. (2016). Pengaruh atribut produk, motif hedonic dan motif utilitarian terhadap keputusan pembelian. *Jurnal Ilmu dan Riset Manajemen (JIRM)*, 5(2).

Ozturk, A. B., Bilgihan, A., Nusair, K., & Okumus, F. (2016). What keeps the mobile hotel booking users loyal? Investigating the roles of self-efficacy, compatibility, perceived ease of use, and perceived convenience. *International Journal of Information Management*, 36(6), 1350-1359.

Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of retailing and consumer services*, 29, 123-134.

Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5.

Rahman, M. S. (2020). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review.

Rašković, M., Ding, Z., Škare, V., Došen, Đ. O., & Žabkar, V. (2016). Comparing consumer innovativeness and ethnocentrism of young-adult consumers. *Journal of business research*, 69(9), 3682-3686.

Reinhardt, R., & Gurtner, S. (2015). Differences between early adopters of disruptive and sustaining innovations. *Journal of business research*, 68(1), 137-145.

Shams, R., Alpert, F., & Brown, M. (2015). Consumer perceived brand innovativeness: Conceptualization and operationalization. *European Journal of marketing*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Stock, R. M., Oliveira, P., & von Hippel, E. (2015). Impacts of hedonic and utilitarian user motives on the innovativeness of user-developed solutions. *Journal of Product Innovation Management*, 32(3), 389-403.

Sykes, T. A., Venkatesh, V., & Gosain, S. (2009). Model of acceptance with peer support: A social network perspective to understand employees' system use. *MIS quarterly*, 371-393.

Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application (JITTA)*, 11(2), 2.

Wang, W., Cole, S. T., & Chen, J. S. (2018). Tourist innovation in Air travel. *Journal of Travel Research*, 57(2), 164-177.

Wu, B., & Chen, X. (2017). Continuance intention to use MOOCs: Integrating the technology acceptance model (TAM) and task technology fit (TTF) model. *Computers in human behavior*, 67, 221-232.

Wu, W.-Y., & Ke, C.-C. (2015). An online shopping behavior model integrating personality traits, perceived risk, and technology acceptance. *Social Behavior and Personality: an international journal*, 43(1), 85-97.

Young, R. A., & Kent, A. T. (1985). Using the theory of reasoned action to improve the understanding of recreation behavior. *Journal of Leisure Research*, 17(2), 90-106.

Yu, Y., Yi, W., Feng, Y., & Liu, J. (2018). Understanding the intention to use commercial bike-sharing systems: An integration of TAM and TPB. Proceedings of the 51st Hawaii International Conference on System Sciences,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **A Theoretical Framework to Protect Whistleblowers from Retaliation**

Dr. Tehmina Fiaz Qazi

University of the Punjab, Lahore

Dr. Abdul Aziz Khan Niazi

University of Engineering and Technology, Kala Shah Kaku

Hira Tanweer Butt

University of Engineering and Technology, Lahore

Noor-e-Zainab

University of Engineering and Technology, Lahore

Shanza Farhat

University of Engineering and Technology, Lahore

Muhammad Ibrahim

University of Engineering and Technology, Lahore

#### **Abstract**

As the World is progressing, people are becoming more aware of the unethical practices and also whistleblowing about it but this is also causing huge retaliation against them.

The aim of the study is to protect whistleblowers from retaliation and to urge organizations and law enforcement agencies to make regulations accordingly. In this paper, we have proposed a theoretical framework that includes protection factors for internal and external both whistleblowers. The results proved that ethical climate, unbiased top management and protection laws can protect whistleblowers from retaliation. This paper discusses a theoretical framework that will help in protecting whistleblowers from retaliation whether the whistleblowing is internal or external and provides a framework that will help whistleblowers from the potential threats that may result in reprisal. Ethical Climate, Un-biased top management and Protection laws awareness can help the whistleblower to protect himself from retaliation.

**Keywords:** Whistleblowing, Retaliation, Threats, Whistleblower, Protection, Wrongdoing, Corporate Sector, Protection laws, Laws awareness, Unbiased management, Ethical Climate, Victimization

#### **Introduction**

The number of whistleblowing activities has been increased worldwide. The reports of wrongdoings are not restricted now just to a single country, but the whistleblowers from all over the world are uncovering these wrongdoings to their management or to the government responsibly. Retaliation against whistleblowers is taking serious turns as the cases of whistleblowing is increasing. Laws and regulations can help whistleblowers to save themselves from reprisal. If whistleblowing is not taken seriously, organizations can face serious repercussions in the form of financial loss, goodwill damage etc. Organizations sometimes take whistleblowing against them. They state the fact that when an employee reports wrongdoing outside the organization, they become disloyal to the organization because being an employee of that organization their primary responsibility and duty is to protect the organizational perspective (Chordiya, 2019). This idea of loyalty sometimes cost much to whistleblower as this idea



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

makes a whistleblower, the culprit. Also, if everyone tried to be true to this concept of loyalty, nobody will report wrongdoing and it will not be beneficial for the organization and can even cause huge problems for the organization. As many studies proved that loyalty of an employee to an organization means that they have to stay loyal to its mission, vision and values. Anything against these, is against the organization and anything or act that can harm these, can harm the organization. So, if they report any wrongdoing, it does not make them disloyal or traitor, but in fact, they, are protecting the organization and its values to which they need to be true. So, protecting the whistleblowers is the responsibility of organization and law.

## Background

Whistleblowing is a phenomenon which is considered as a universal truth to counter each illegal practice in professional and social aspect within the organization. It has been defined as a declaration from employees of an organization for their colleagues to the top management regarding unethical proceedings, immoral conduct and unlawful acts. It is important for the organization to protect whistleblowers as this will help the organization to encourage the whistleblowers about wrongdoings and the avoidance of health and safety catastrophes, which prompted governments and organizations to implement whistleblower protection legislation. Managers may use employee views of the organization's protection of internal whistleblowers as a valuable tool for assessing the effectiveness of the organization's efforts to foster such environment.

For the behavior of public personnel, legality is a significant source of legitimacy. "The rule of law" indicates that properly published principles and policies establish the ground for the lawful exercise of administrative power. The legal environment provides discretion and judgement to public personnel. The efficacy of whistleblowers will be enhanced if formal whistleblowing processes are institutionalized inside enterprises in response to statutory obligations. An ethical climate substantially influences workers' whistleblowing intentions, but it is also crucial to enable successful whistleblowing. Ethical climates may impact the actions of both whistleblowers and those who are receiving information. These environmental signals will boost favorable perceptions of that the organization is in support of ethical behavior like whistleblowing when they are combined.

The moral and ethical character lies at the heart of ethical leadership. Openness, reliability, and equity traits show integrity of leadership. An ethical leader is the one who not only exemplifies the qualities of an excellent leader but also makes significant contributions to the organization and community, also willing to make such decisions that necessitate a lot of courage to achieve a high level of ethical leadership. By increasing the moral consciousness of their followers or raising awareness in their society, they also contribute. As well as role modelling, leaders may utilize their personal and positional influence to establish and execute institutional ethics, management requirements, including ethical training and uplifting the ethical standards. Ethics management practices such as ethical training and published code of ethics may be used to promote ethical principles and achieve ethical objectives from ethical leadership.

Researches have been conducted for the protection laws of whistleblowers but no framework talks about strategies such as ethical climate or top management etc. for internal and external whistleblowing together, that can play an important role in the protection of whistleblowers. Organizations are making





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

policies for the protection of whistleblowers and Government has made different laws but there is no such law enforcement agency that can make sure the implementation of these and organizations also do not have the right organizational strategies for this. Government has made laws for the protection of the employees, but if the organizations provide support to whistleblowers through their strategies, it will be more helpful as most of the employees try to go for external whistleblowing which can cost the organization more than the internal whistleblowing that employees opt only if they are sure about the protection from the Organization.

In the next chapter, we will discuss about the previous studies and theories that provide support to the framework. After literature review, we will discuss about the theoretical framework that we have given for the protection of whistleblowers. The third chapter will discuss the methodology and overall research design. The fourth chapter will discuss about the results, analysis and implications of this research in different fields. The last chapter of this study will discuss about the conclusion drawn on the basis of chosen research design.

Organizations are working on regulations and policies that can urge and protect whistleblowers but retaliation against whistleblowers is taking a serious turn due to an unethical climate and detached top management. If retaliation against whistleblowers is not controlled, organizations can face worse situations as whistleblowing helps organizations in identifying the wrongdoings that can cost organizations much.

Research objectives of this study are: (1) To provide a framework for the protection of whistleblowers (2) To save whistleblowers from being victimized (3) To protect whistleblowers from counter-attack

The research questions that arise from the above research objectives are: (1) How an ethical climate of organization can enhance whistleblower's protection? (2) What role top management can play in protecting whistleblowers from retaliation? (3) How laws and regulations can save a whistleblower from victimization?

### **Literature Review**

Many scholars have attempted to provide a framework for whistleblower's protection. The framework explains internal and external whistleblowing protection. The factors we choose for this paper are Whistleblowing Protection, Ethical Climate, Protection Law's Awareness, and Unbiased Top Management. This article reviews prior studies on the impact of organizational factors on whistleblowing protection. For this reason, that the prior studies mostly talk about the internal and external whistleblower's protection separately, but in this framework we discuss internal and external whistleblower's protection accumulatively. Because if protection is not provided on both ends i.e. internal and external, then whistleblower retaliation can exist in other ways. We have organized the review variable wise. Literature will firstly talk about the dependent variable and then the independent variables. After that we will discuss about prior studies and theories accordingly.

Whistleblowing is a strategy adopted by people to expose any kind of misconduct in an organization. It is crucial to protect employees and other individuals that may expose such practices. Sometimes whistleblowers are reluctant to blow the whistle because they have fear of their safety, losing their jobs, counter-attacks, etc. Protection of whistleblowers is important because this way wrongdoings can be minimized. We can protect whistleblowers by making laws, providing them assurance that reporting will not pose a risk to their career, social life, legal protections and rewards. This way they will be motivated





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and a peaceful environment can be maintained in the organization.

Wrongoings are consistently seen on account of moral negligent exercises concerning two or three individuals. In many cases, there has been a creating arrangement that affiliations are responsible for their laborers' immoral practices. Around thirty years earlier, Victor and Cullen (1988) introduced the possibility of ethical environment to see the impact that a definitive environment can have on (un) ethical rehearses. Ethical climate as a winning impression of ordinary legitimate practices and strategy that have an ethical substance. Moral conditions are classified into three types named as Principled, Liberal and Prideful. The fundamental idea for principled moral climate is the application and interpretation of rules or guidelines. The narrow-minded conditions are for the most part stressed over moral obligation.

Researchers have applied the social data handling way to deal with a feature that an organization's moral environment affects a person's (un)ethical work conduct. The social data handling approach sees people as versatile creatures who adjust mentalities, practices, and convictions to their social setting and the truth of their own over a significant time span conduct and circumstance. Salancik and Pfeffer (1978) recommended that social surroundings give instructive signals that influence their perspectives and insights regarding the organization. People are influenced by their social (for this situation, authoritative) settings through plain articulations made by collaborators regarding their workplaces. Also, the social influences of colleagues and managers can influence people's assumptions from the workplace and make specific parts of the environment pretty much remarkable. For example, the criticism from colleagues and bosses about the signature appended to moral conduct will emphatically influence a person's assumptions regarding hierarchical help for ethical behavior.

Regarding whistleblowing, observational exploration demonstrates that not exclusively does a ethical environment affect worker's whistleblowing expectations yet; it also is fundamentally critical to guarantee effective whistleblowing. When eyewitnesses of lousy behavior are defied with moral boundaries, moral climates may influence about the suitability of whistleblowing, subsequently affecting the choices of the two whistleblowers and those getting the report (Near and Miceli 1995; Victor and Cullen 1988). This way, expanding on the social information handling approach, it is recommended that morals arranged environment could support moral thinking in light of rules or regulations (for example, conscientious environments) and thought of others (for example, warm climates). These joined variables will go about as natural signals that improve positive understandings about an organization's help and assurance for moral practices, such as whistleblowing.

Lawfulness is one of the vital wellsprings of authenticity for the lead of public workers. In open administration, law and order imply that properly proclaimed composed standards and approaches are the reason for the authentic exercises of administrative power. Moreover, public workers infer their discretion and judgment from the lawful climate. Therefore, complying with law and order is viewed as the underpinning of public administration (Hill and Lynn 2015). Accordingly, this study considers legitimate mindfulness as a specific and critical component that straightforwardly influences representative's apparent authoritative insurance for whistleblowers. Close and Miceli (1995) contended that the regulation of formal whistleblowing techniques inside organizations because of legitimate commands would expand the effectiveness of whistleblowers. Therefore, we expect mindfulness about standardized honest help for whistleblower's security will upgrade worker's apparent hierarchical protection for whistleblowers.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

In the United States, the significance of whistleblowing and the need to safeguard whistleblowers was legitimately perceived in the arrangements of the Civil Service Reforms Act (CSRA) of 1978. This way, the securities for whistleblowers were additionally reinforced under government resolutions to be specific Whistleblowers Protection Act in 1989, the Sarbanes-Oxley Act of 2002, the Dodd-Frank Act of 2010, and the Whistleblower Protection Enhancement Act (WPEA) of 2012, as well as under different state-level rules.

Whistleblowers assurance rules give a legitimate establishment to whistleblowers insurances and whistleblowing is intended to empower and boost exposure of bad behavior and dispose of dread as a negative element, which may cease people from whistleblowing. These rules give both preventive and corrective measures to shield whistleblowers from the counter (Agency Against Corruption 2017; Malaysian Anti-Corruption Commission 2017; Ministry of Justice 2018). Consequently, we expect that inside the organization, when top management know about legitimate securities for whistleblowers, they will show more authoritative assurance for whistleblowers.

The exploration on unbiased top management has expanded how we might interpret the effective initiative it has on moral practices, including whistleblowing. Ethical top management are legitimate, mindful, and principled people who settle on fair and adjusted choices. Ethical top management additionally habitually speak with their workers about morals, set clear moral norms, and use incentives and disciplines to see that those guidelines are adhered to. Such a conceptualization of moral initiative perspectives a moral chief as a 'ethical individual' (a legit, mindful, and principled individual settling on fair and adjusted choices) as well as a functioning 'moral supervisor' (who sets clear moral norms and utilizations prizes and disciplines to guarantee perception of those norms). Point of view, Van Wart (2014) contended that the management's profound quality and trustworthiness is the center of moral initiative. Genuineness, dependability, and reasonableness represent a leader's trustworthiness. Van Wart (2014) recognized great and profoundly Ethical top management. While great Ethical top management perceive moral issues, reflect on issues that present conflicting values, and settle on suitable choices in light of aggregate great, exceptionally moral or praiseworthy leaders are recognizable as they not just show qualities of a decent moral leader yet in addition make significant commitments to their organization or local area and, will settle on remarkable sacrifices and choices requiring extraordinary standards. Van Wart (2014) described profoundly Ethical top management as excellent leaders. Excellent leaders make a significant commitment by their diligent effort, tirelessness, and commitment of numerous partners in the accomplishment of a specific undertaking or great work. They additionally contribute by raising the ethical attention to supporters or mindfulness locally.

Leaders are engaged extraordinarily inside organizations because of their allocated jobs, status, and capacity to influence practices and results. Hence, leaders can demonstrate representative's moral techniques through assumptions regarding ethical practices and legitimate results. Notwithstanding, to be considered to be effective good examples, leaders should lay out their validity and authenticity through continuous methods. All in all, leaders ought to be seen as Ethical top management by their supporters. Subsequently, ethical leaders can demonstrate devotee's honest practices through social learning. Also, in this cycle, leaders are relied upon to display ethical rules. They are also expected to satisfactorily emphasize a moral message for its remarkable quality, which hangs out in a traditional setting.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Regarding moral practices specific to whistleblowing, ethical management transport affects representative's choices to report lousy behavior. Existing exploration shows that the absence of help from authority (bosses and top administration) raise the probability of reprisal for whistleblowers. Accordingly, the shortfall of moral initiative or unethical conduct of management can make negative insights about whistleblowers securities, deter inward whistleblowing. Notwithstanding, moral utilization of positional and individual power could decidedly affect the ethical practices of representatives as well as the general honorable conditions. Subsequently, we recommend that the moral administration of ranking directors will emphatically affect apparent authoritative security for whistleblowers.

Victor and Cullen (1988), who fostered the moral environment hypothesis, clarified that the idea differs along with two aspects - a moral methodology aspect and a moral referent aspect. The primary aspect - a moral methodology aspect, takes a glance at the emotional cycles to be specific: (a) pride or augmenting personal responsibility; (b) generosity or boosting joint interests; and (c) rule. In a word, assuming the moral methodology aspect of the organization has a proud measure; workers would consider their dynamic circumstances while confronting a moral dilemma. In a ethical sort of organization, representatives would generally feel the government assistance of others in addressing their moral choices. In contrast, where the organization has a familiar environment, workers think about utilizing rules, standards, and regulations to settle on their ethical decisions. The subsequent aspect - moral referent aspect is addressed by: (a) individual, (b) nearby, and (c) international referents. Assuming the locus of examination is individual, the reason for the person's moral dynamic comes from inside one's very own ethical conviction; neighborhood locus of investigation alludes to the assumption that comes from inside the organization like the organization's code of conduct; and international community suggested to the moral dynamic that is outer to the individual and organizations, for example, a set of principles laid out in proficient affiliations.

It is stated that the number of ethical environment aspects that exist in a specific organization are illustrative of each element. Concerning whistleblowing, the authoritative ethical environment hypothesis can be utilized to show how revealing expectations are affected by the organization's environment. Rothwell and Baldwin's (2006) study was the solitary review that researched the connections between moral background and whistleblowing conduct. They inferred that ethical environments may have limited ability to influence whistleblowing acts because of the details and responsive qualities related to such demonstration. They recognized that their review didn't control socially helpful reactions, and their respondents were also not mainly presented to work unfortunate environment activities. Moreover, how their examples were drawn from workers in open organizations could have made the moral environment hypothesis less generalizable to such an organization. By and large, guaranteed that natural environments couldn't anticipate people's whistleblowing expectations. Regardless of the outcomes, Rothwell and Baldwin (2006) had proposed that future investigations should be led in private organizations.

Another study recommends the three essential models of moral judgment: self-absorbed, kindhearted, and guideline. As expressed already, an environment described as pride can be anticipated to elevate the hierarchical part to think about their circumstance. Selfish environment signs to inner reviewers that the organization is supporting and embracing self-intrigued practices, even to the detriment of others. In such an environment, it is conjectured that inward inspectors will be more averse to whistle blow. The



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

second kind of environment - consideration is described by the assumption that authoritative individuals are worried about the prosperity of others both inside and outside the organization. As a result of this advancement of capital, it is conjectured that inner reviewers will be bound to whistle blow in consideration sort of the environment. The last climate - rule depends on the conviction that there are all-inclusive standards of good and evil, and moral choices depend on the application or translation of laws, regulations, and norms. On the off chance that the organization or its individuals are taking part in dishonest conduct, one more part would probably feel constrained to disagree. This way, in this kind of environment, interior examiners will be bound to whistle blow.

Whistleblowing is broadly accepted to assume a significant part in uncovering government and corporate wrongdoing. Consequently, numerous global organizations have become solid backers for regulations that shield whistleblowers from the counter. A few noticeable models incorporate Transparency International, which has distributed a bunch of "suggested draft standards for whistleblowing regulation," and the Council of Europe, which has called upon part states to give "a standardizing and legal structure to safeguard people who whistle blow against damage to the public interest. "In a similar situation, a significant Australian examination project on whistleblowing called for reinforcing assurances, taking note of that the findings of the undertaking "highlight a requirement for additional change and more grounded oversight in the public area, and particularly confirm that for the private and not-for-profit areas, an all-around informed administrative redesign is late."

This paper examines whether whistleblowers regulations that shield private workers from reprisal are an effective approach apparatus for discouraging corporate extortion. Such regulations stand out in the United States right after the various bookkeeping outrages of ongoing years. The activities of organizations like Enron, WorldCom, and HealthSouth have made financial backers lose billions of dollars and have shaken financial backer confidence in financial explanations and reviewers. Notwithstanding the significant job of autonomous examiners in supporting admirably working capital business sectors, not many purviews force an obligation on reviewers to report wrongdoing to administrative authorities. Whistleblower regulations hold the possibility to supplement the hindrance effect of outside reviews by empowering representatives to uncover misrepresentation and different types of corporate misconduct.

We foster exact proof on the connection between whistleblower's safety and corporate misconduct, utilizing information from the United States. This information is appropriate to such an endeavor due to the multi-jurisdictional parts of the U.S. overall set of laws. Although government rules safeguard whistleblowers in the public area, particular states are allowed to institute their whistleblowers regulations, given that these regulations don't conflict with administrative law. Most conditions seem to see whistleblowers against counter-measures as a critical instrument for hindering bad behavior. Generally, fifty states have some whistleblowers regulation set up. Be that as it may, the specifics of these regulations, for example, the sort of whistleblowers secured, the suitable divulgence beneficiary, and solutions for the counter, show wide variation across states.

Our proportion of corporate misrepresentation is developed utilizing data aggregated from the Executive Office for the U.S. Lawyers (EOUSA) by the Transactional Records Access Clearinghouse (TRAC) at Syracuse University. The TRAC information base records the number of corporate misrepresentation arrangements filed and the number of corporate extortion convictions by state legal region starting with 2003. We total the legal region information to get a proportion of corporate misconduct at the state level





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and gap by the quantity of non-ranch representatives in the state to get a conviction rate. We lead the investigation involving conviction information for the years 2003-2015. The exploration configuration is explicit. We gauge cross-segment relapses of the state-level conviction rates for corporate misrepresentation on the three factors examined above and incorporate a cooperation variable to consider the likelihood that the effect of the counter reprisal arrangements of whistleblowers regulations differs across states with high and low mindfulness. The relapse proof is predictable with our theory regarding the obstacle effect. Specifically, we find that greater attention to whistleblowers regulations is related to a lower conviction rate for corporate extortion for states whose whistleblowers regulations have arrangements that safeguard private representatives. This proof is robust to the utilization of an assortment of control factors. We likewise consider the effect of state qui TAM regulations; however, find little evidence of a hindrance effect as for corporate fraud. This finding isn't really to be expected, taking into account the restricted extent of such regulations. Our outcomes on the impediment effect of whistleblowers regulations supplement the new findings, who researches the effect of whistleblowing by workers of U.S. partnerships on the conduct of these enterprises in resulting time-frames. His investigation recommends that charges raised by whistleblowers have an impediment effect on both financial distorting and charge aggressiveness and that this effect can be noticed for somewhere around two years after the year in which the claim was made. Our examination is entirely predictable with this finding and proposes that reinforcing state-level whistleblowers regulations is an effective way for the U.S.

This study will discuss Ethical Climate, Protection law awareness and Unbiased top management as the factors that can affect the whistleblower protection and can also help the organizations to regulations accordingly. We have discussed these factors as these are one of the most important factors in this matter. Because these are the factors that can target internal and external whistleblowers both. For the current research we have explored Jstor, Taylor and Francis, Wiley Online, Springer, and Emerald. For the purpose of research on this we have studied more than 100 research papers. This study is focusing the corporate sector. The papers we have studied were from the health sector, the education sector, and the corporate sector. The papers that were purely related to the corporate sector were included in this research and related to other sectors were not included as those sectors were not the target ones. With the passage of time whistleblowing is increasing that is causing retaliation against whistleblowers more frequently. Different researchers are trying to make different frameworks for the protection of whistleblowers, some frameworks for internal whistleblower's protection and some frameworks for external whistleblower's protection. Our wider topic of research is protection of whistleblower. In this topic we discussed how different variables affect internal and external whistleblower's protection, i.e. Ethical Climate, Protection Law's Awareness and Unbiased Top Management. Different factors affect the whistleblower's protection like Ethical climate, Protection Law's Awareness, and Unbiased Top Management. In this literature different theories are also discussed like Ethical Climate Theory and Law for protection of whistleblowers. In this literature we have discussed the wrongdoings faced with moral dilemmas, ethical climates may also impact perspectives of whistle blowing. Protecting whistleblowers will improve the perceived organizational protection of whistleblowers by employees, and if top management is unbiased than it will have a positive impact on organizational protection for whistleblowers. In Ethical climate theory two dimensions are discussed, i.e. ethical approach dimension and ethical reference dimension, and different laws are also discussed for the protection of





Proceedings

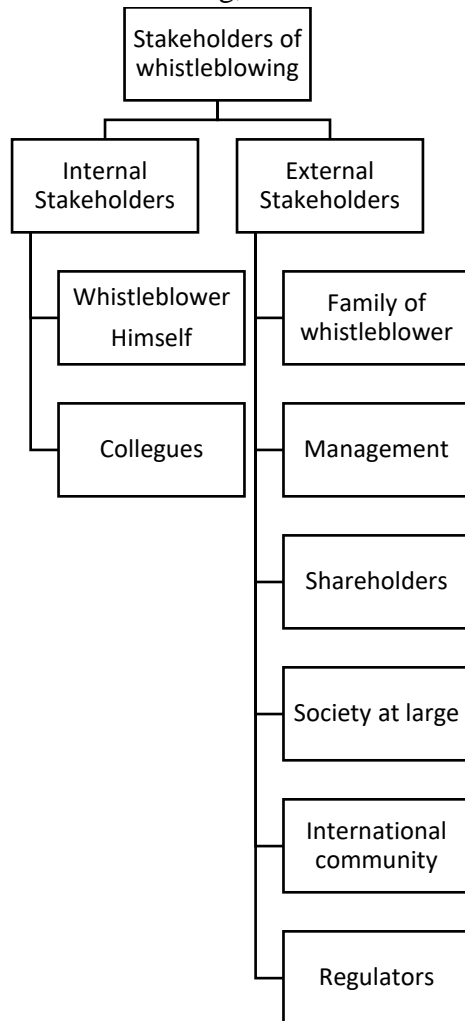
ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

whistleblowers. Researches are conducted for the protection laws of whistleblowers but no framework talks about strategies such as ethical climate or top management etc. For internal and external whistleblowing together, that can play an important role in the protection of whistleblowers. Organizations are making policies for the protection of whistleblowers and Government has made different laws but there is no such law enforcement agency that can make sure the implementation of these and organizations also do not have the right organizational strategies for this purpose. Government has made laws for the protection of the employees but if the organizations provide support to whistleblowers through their strategies, it will be more helpful as most of the employees, try to go for external whistleblowing which can cost the organization more than the internal whistleblowing that employees opt only if they are sure about the protection from the organization. We have presented a framework for internal and external whistleblowing together, that can play an important role in the protection of whistleblowers. In this research we have discussed three variables for whistleblower's protection. For future, researchers should study further factors that can affect whistleblower's protection. Moreover, as each variable has its own dimensions, these dimension should also be studied.

### **Theoretical Framework**

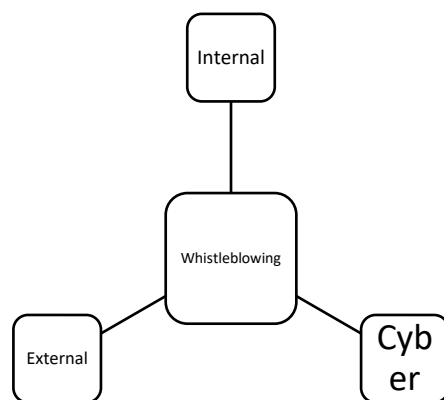
The concept of wrongdoing has been central to whistleblowing research, a catch-all term that encompasses everything from petty incivility to multibillion-pound malfeasance (Berman, 2013). It is defined as acts by insiders within a firm to expose internal or external incidents which are illegal, inappropriate, or suspected to be so. Within every particular organization, there are a variety of wrongdoings for which an individual may feel compelled to report. Although the current investigation focuses on issues of the safety of whistleblower, it is worth considering how different types of wrongdoings will affect whistleblowing. The majority of whistleblower research has focused on financial misconduct, such as fraud and corruption, when a definitive judicial judgement is required to determine whether or not wrongdoing happened (Chordiya, Sabharwal, & Paul Battaglio, 2018) According to the theoretical framework employed in this study, communicating to employees that whistleblowers are properly protected in the organization requires a multi-pronged strategy. Previous research has shown that a multi-dimensional strategy is essential for accomplishing public goals and ensuring organizational effectiveness. The theoretical model proposes that ethical climate, un-biased top management and protection laws awareness can help to foster perceived organizational protection for whistleblowers. The role of each of these criteria in achieving stronger perceived organizational protection for whistleblowers is discussed in the following sections. This framework is based on Chordiya, Sabharwal, Relly & Berman (2020) with some changes i.e. Ethical Climate, Unbiased & Impartial Top Management and Protection Law Awareness. Klijn (2015) described ethical climate as environment or atmosphere of the organization that promotes or encourage ethical practices. When organization top management accept the whistle blower report of wrong doing, it is said to be unbiased and impartial. After the identification it should be ensured to keep the process unbiased at all level specially at top management. Whistle blower should know about protection of whistle blower law, so that he/she cannot be pressurized in the name of law.



**Figure 1. Stakeholders of Whistleblowing**

In *figure 1*, we discuss different stakeholders of whistleblowing. There are two types of stakeholders: Internal stakeholders and external stakeholder. When we talk about internal stakeholders it includes whistleblower himself and their colleagues. If organization take action against whistleblower, they will be firstly affected or harmed. There are high chances that they will be fired from the job. If whistleblower has close relationship with their colleagues, they will be affected because every person in the organization will think that they both are involve in whistleblowing and organization will take action against both of them on the other hand if some colleagues are not in the favor of whistleblowers they will support organization against whistleblower. External stakeholders involve the family of whistleblowers, management, shareholders, society at large, international community and regulators. Whistleblower's family get affected at first when they report wrongdoing in the organization. This

retaliation can be in the form of threat or any harm to family. If the management is also involved in wrongdoing, then actions can be taken against management of that organization due to which they also get affected by the whistleblowing. If any person blows the whistle against any organization than that organization can get defamed and shareholders have shares in the company that can lose its goodwill. Society will get affected by whistleblowing as it is the right of society that no organization harms it with its unethical practices. Regulators have an important role in this all. If they are not paying attention on the organizations that whether the rules and regulations are being followed or not properly, it can harm them too. International Communities also get affected by whistleblowing, so they play important role.



**Figure 2. Types of Whistleblowing**

In figure.2 we discuss different types of whistleblowing that includes Internal Whistleblowing, External Whistleblowing and Cyber Whistleblowing. These are as follows:

**Internal Whistleblowing**

This is the most familiar type of whistleblowing in which a worker can report about misconduct to the employer while staying in the organization. An outline is prepared as a process for the employer whistleblowing policy. The employer should follow this policy for better results. Internal whistleblowers have lot of courage because generally people are hesitant to report about the illegal/unethical activities within the organization as it can cause a lot of problems and also increase the chances of retaliation against them.

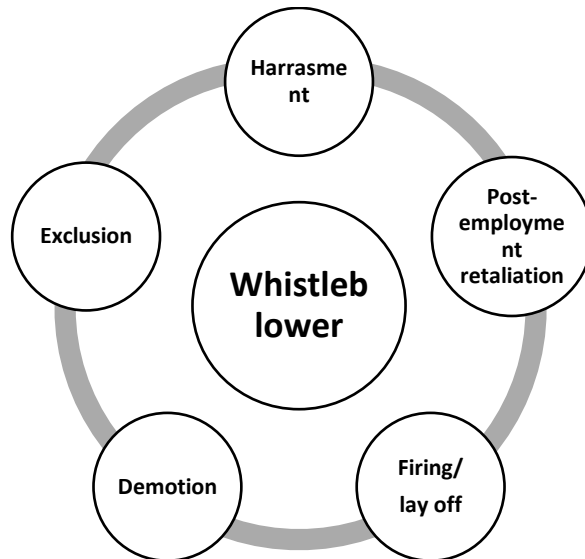
**External Whistleblowing**

External whistleblowing involves telling about the wrongdoings to sources that are out of the organization. A whistleblower who choose media, public or 3rd party to know about the malpractices, is external whistleblower. No law can stop a person to report the illegal activity. If a person suspects any illegal activity and sheds light on it, that person should be appreciated. But this type of whistleblowing can cause a huge retaliation as employer may take action or retaliate against the whistleblower due to the defamation of the organization or inclusion of third party.

**Cyber Whistleblowing**

This type of whistleblowing is increasing speedily as the risk of security and storing data is taking place

online. This cyber whistleblowing focuses on cases like unsecure policies, hacking problems, security contracts being broken etc. If the cybersecurity practices of a companies are strong, they can enjoy the customer benefit because their data is secured. Unfortunately, cyber whistleblowing is a new concept and most of companies do not have awareness about it. The most common and poplar laws that protect the cybersecurity whistle-blowers from reprisals are Sarbanes Oxley law, Dodd frank law and false claim act.



**Figure 3. Threats to whistleblowers**

Figure 3. discusses the major forms of retaliation that a whistleblower has to face after the whistleblowing. The most common form of retaliation is firing the whistleblower. People doing wrongdoings in the organization try to suppress the voice of whistleblower by simply firing that person from the organization and in severe cases even the whistleblower is fired from job by with wrong allegations. This is the most common form of retaliation that is opted by many organizations or employers whenever they face whistleblowing. As this is the law in many countries that when there is a case of whistleblowing going on, organizations cannot fire the whistleblower, so they may get victimized by other forms such as demotion which can include giving them a less desirable post or not recommending them for promotion even if they deserve, exclusion from important happenings in the organization (e.g. not including the whistleblowers in work-related decisions, meetings) and it can have a huge impact on the mental health of the whistleblower following the fact that they are isolated. Harassment is another form of retaliation that can affect the whistleblowers badly. Moreover, sometimes even after the whistleblower leaves the organization or get fired, the wrongdoers from the organization continues to threaten the them or harm them which includes threatening the whistleblowers, harming the whistleblowers or their families, blacklisting them so that they cannot get a job again in some other good organization, making false allegations such as corruption, stealing etc. against them. Other actions in retaliation against whistleblowers may include: not promoting them, giving them a less desirable position, making work conditions intolerant for them, isolating, mocking, increasing working hours,



**Figure 4. Organizational laws for protection of whistleblower**

Figure 4. discusses the organizational laws for the protection of whistleblowers. The Whistleblower Protection Act of 1989 protects federal government employees in the United States from retaliation for voluntarily sharing information regarding dishonest or unlawful practices in their workplace. This act bans federal agencies from retaliating against employees who report information that they feel violates a law or compliance regulation.

President Obama signed the Whistleblower Protection Enhancement Act of 2012 (WPEA), which amended the Whistleblower Protection Act of 1989. WPEA provides enhanced protection for government whistleblowers by expanding the scope of protection and judicial review. This upgraded version of the Whistleblower Protection Act gives whistleblowers more options for retaliation and gives the US Office of Special Counsel more authority to hold managers accountable for retaliatory activities.

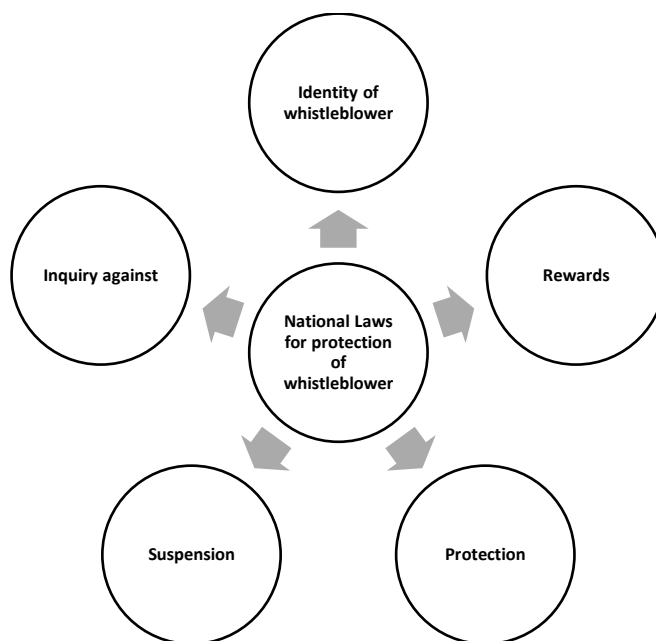
Fair Labor Standard Action is a United States labor law that creates the right to a minimum wage, and "time-and-a-half" overtime pay when people work over forty hours a week. It also prohibits employment of minors in "oppressive child labor". It applies to employees engaged in interstate commerce or employed by an enterprise engaged in commerce or in the production of goods for commerce, unless the employer can claim an exemption from coverage. This law protects employees who complain about wage violation, such as an employer's failure to pay overtime or follow minimum wage requirements, are protected.

The Occupational Safety and Health Act of 1970 is a US labor law governing the federal law of



occupational health and safety in the private sector and federal government in the United States. It was enacted by Congress in 1970 and was signed by President Richard Nixon on December 29, 1970. Its main goal is to ensure that employers provide employees with an environment free from recognized hazards, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. The Act created the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH). The Occupational Safety and Health Act protects workers against reprisal for reporting workplace safety infractions.

The National Labor Relations Act of 1935 (also known as the Wagner Act) is a foundational statute of United States labor law that guarantees the right of private sector employees to organize into trade unions, engage in collective bargaining, and take collective action such as strikes. Central to the act was a ban on company unions. The act was written by Senator Robert F. Wagner, passed by the 74th United States Congress, and signed into law by President Franklin D. Roosevelt. In this act Retaliation against workers who try to form or support a labor union is prohibited.



**Figure 5. National laws for protection of whistleblower**

Figure 5 discusses the laws in Pakistan to protect whistleblowers from retaliation. There are different laws in the country to save such people who try to report the wrongdoings from organizations. A bill was being introduced in the National Assembly which mentions different committees for the protection of whistleblowers, the powers and functions of those committees and laws for the protection. For example:

**Identity of whistleblower:** The identity of the Whistleblower shall not be disclosed before the authority or any agency or forum or to anyone even after the finalization of the matter, except upon written consent by the Whistleblower, and if the Commission after inquiry is of the view that any person has revealed the identity of Whistleblower, it may impose a fine which may extend to rupees five hundred

**Rewards**

n the event of recovery, as result of Whistleblower Information, made by the Whistleblower under this Act, he shall be rewarded twenty percent of the recovered amount and a certificate of appreciation.

**Inquiry against whistleblower**

No suit, prosecution or other legal proceedings shall lie against the Commission or against any officer, employee, agency or person acting on its behalf or a Whistleblower, in respect of anything which is in good faith done or intended to be done under this Act.

**Suspension**

Whistleblower cannot be suspended during process of his/her case.

**Protection**

f a Whistleblower is being subjected to Disadvantageous Measures or likely to be subjected to Disadvantageous Measures on the ground that he has made Whistleblower Information, he may file an application before the Commission seeking reparation in the matter. The Commission may pass such orders to the concerned authority.



**Figure 6. International laws for protection of whistleblower**

Figure 6. discusses the international laws for the protection of whistleblowers. The international laws of whistleblowing are different depending upon the countries. For example, In India, whistleblower act can only save the public workers. Whereas in countries like Korea, Japan both the public and private workers can be protected against the retaliation. Few of the international laws are as follows:

**False claim act**

This act motivated whistleblowers who have original proof of U.S government contract to report the malpractices. FCA motivated whistleblowers to do work with government for the sake of rewards specifically Monetary Rewards Moreover, they can get 15% to 30% of money accumulated by the government.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**The Whistleblower Protection Enhancement Act of 2012**

This law makes protection of federal government strong to show proof of a misconduct. The office of special counsel OSC can investigate the actions which are banned including whistleblowers reprisals.

**The Intelligence Community Whistleblower Protection Act**

This act gives a procedure for employers and contractors of federal intelligence agency to give their complaints to congress about problems related to intelligence activities.

**OSHA Whistleblowers protection act**

OSHA observed approximate 20 federal law that protect employees from reprisal that can be the result of reporting the wrongdoing by organization. It also provides protection to employees in different ways such as working hour management, overtime, firing or laying off etc. as these are the most common forms of retaliation that can occur against the whistleblower for example employer or organization can increase the working hours but not pay according to that, can deny overtime of the employee, or other forms etc. The section 1 (c) of OSHA banned retaliation against employees that provide harm to the human health.



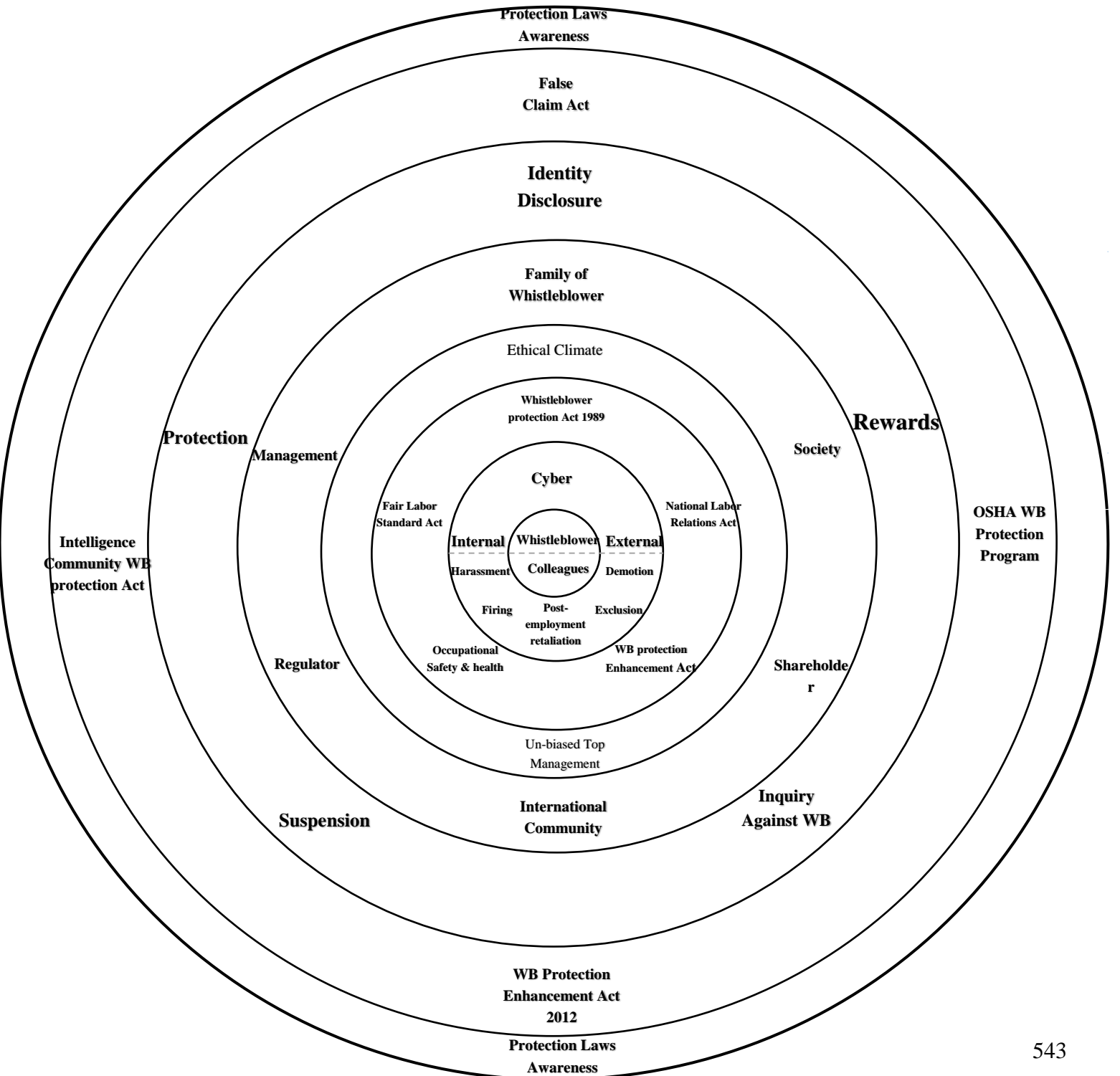
# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Figure 7. A theoretical framework to protect whistleblower from Retaliation**

*Figure 7.* discusses the framework of this research paper. The internal stakeholders are at the core that are Whistleblower himself and his colleagues because those are the people who are more affected by whistleblowing. The layer that covers it, is of major forms of retaliation and major types of whistleblowing. Different forms of retaliation such as firing, demotion, exclusion, post-employment retaliation and harassment are explained. It shows the major of forms of retaliation that can occur against any whistleblower and it also shows through how many ways a whistleblower can report the wrongdoings for example it includes the internal whistleblowing, external whistleblowing and cyber whistleblowing. The third layer covers the laws that different organizations opt for the better protection of whistleblowers with in the organizations and that's where we present the new framework for this layer that is the ethical climate and un-biased top management that are the internal factors that can help to protect the whistleblower. If the organization does not have ethical climate, it will never allow or make way for the whistleblower. The next layer shows the external stakeholders of the whistleblowing that includes the family of whistleblower, society at large, shareholders, management, international community and regulators and national law's layer covers this and the outer layer presents the international laws that support whistleblowers through different provisions that can help a whistleblower to protect themselves from the retaliation or harmful actions by the organization. But as there are many laws for the protection but people do not have the awareness about these so the outer most layer again from the framework presents the external factor that is awareness for protection laws that actually covers this all framework.

### **Methodology**

A map of activity or procedure that aids in the selection of a certain approach for analysis is referred to as methodology (Ameer, 2013). The term methodology refers to a variety of factors in the research process, including theoretical viewpoint and inquiry approach. This study is qualitative in character, and it employed this methodology as descriptive for the research. We have reviewed the work of different researchers from time to time. We have selected this data on the basis of corporate sector. This research paper focuses on three factors that are ethical climate, unbiased top management and protection laws for whistleblowing, because these are such factors that can provide protection to whistleblowers whether its external or internal.

The theoretical model proposes that an ethical climate, protection laws awareness and un-biased top management can help to foster organizational protection for whistleblowers. Whistleblower Protection Program enforces the whistleblower provisions of protecting employees from retaliation for reporting violations of various workplace safety and health, airline, commercial motor carrier, consumer product, environmental, financial reform, food safety, health insurance reform, motor vehicle safety, nuclear, pipeline, public transportation agency, railroad, maritime, securities, tax, antitrust, and anti-money laundering laws and for engaging in other related protected activities. The role of each of these criteria in achieving stronger perceived organizational protection for whistleblowers is discussed in the





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

following sections.

The initial reading list for the review covered 117 articles from major Law cited journals. Because of the multidisciplinary nature of the whistle blowers in organization topic, the paper which are located at the intersect of many organizational chains, business process management, technology and manufacturing firms were included in the list to be able to provide a broad perspective of whistle blowing protection frameworks. A classification of these papers has been formed and 107 papers were found more relevant for the cross sectional discussion on protection of whistle blower. The review is based on below mention table 1

### **Distribution of the articles with respect to journals**

Academy of management review	1
Accounting & Finance	1
Accounting Forum	1
Accounting, Auditing & Accountability Journal	2
Advances in accounting	1
An International Review	1
Arab Economic and Business Journal	1
Australian Journal of Public Administration	1
Best Practice & Research Clinical Anesthesiology	1
Business & Professional Ethics Journal	1
Business Horizons	2
Current Opinion in Psychology	1
Digital Journalism	1
Electronic Journal of Business Ethics and Organizational Studies	1
Ethics & Behavior	1
European Economic Review	3
European Management Journal	1
European Management Journal	1
Future Generation Computer Systems	1
Industrial Law Journal	1
Information & Computer Security	1
Information and Organization	1
Information Systems Journal	1
International Comparative Jurisprudence	1
International handbook on whistleblowing research	1
International Journal of Law and Management	6
International Journal of Manpower	1
International Journal of Public Administration	1
International Journal of Public Sector Management	1



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

International Review of Public Administration	1
Jindal Global Law Review	1
Journal of Accounting & Organizational Change	1
Journal of Accounting and Economics	2
Journal of Accounting Literature	1
Journal of Behavioral and Experimental Economics	1
Journal of bioethical inquiry	1
Journal of business ethics	4
Journal of Business Ethics	3
Journal of Business Research	1
Journal of Corporate Law Studies	1
Journal of economic behavior & organization	1
Journal of Financial Crime	6
Journal of Historical Geography	1
Journal of Investment Compliance	2
Journal of management	2
Journal of Managerial Psychology	1
Journal of Money Laundering Control	1
Journal of political economy	1
Journal of services marketing	1
Journal of sport and health science	1
Journal of Systems and Software	1
Law and Financial Markets Review	1
New Technology, Work and Employment	1
Organization Science	1
Organizational Dynamics	3
Organizational Psychology Review	1
Procedia-Social and Behavioral Sciences	1
Public Administration Review	2
Public Integrity	2
Public Management Review	5
Public Performance & Management Review	2
Public Relations Review	2
RAUSP Management Journal	1
Research Journal of Business and Management	1
Research on professional responsibility and ethics in accounting	1
Review of Managerial Science	1
Review of Public Personnel Administration	1
Society and Business Review	1
The American Review of Public Administration	1
The British Accounting Review	1



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The International Journal of Human Resource Management	1
The IUP Journal of Corporate Governance	1
The Social Science Journal	1
The Social Science Journal	1
Work and Occupations	1

**Table 1. Distribution of the articles with respect to journals**

As mention above, review style papers and questionnaire based surveys using different statistical tools and techniques for the analysis dominate the selected list. Some paper use conceptualization of moral initiative perspectives a moral chief as a 'ethical individual' (a legit, mindful, and principled individual settling on fair and adjusted choices) as well as a functioning 'moral supervisor' (who sets clear moral norms and utilizations prizes and disciplines to guarantee perception of those norms). Van Wart (2014) contended that the management’s profound quality and trustworthiness is the center of moral initiative. Genuineness, dependability, and reasonableness represent a leader's trustworthiness. Rothwell and Baldwin's (2006) study was the solitary review that researched the connections between moral background and whistleblowing conduct. The focus of research is on how external and internal derived values and beliefs impact whistleblowing. These values and beliefs may come from macro-level or societal-level influences (e.g. religious teachings or national culture) or by more influences, such as the local organizational culture, rules and regulations, or the influence of dominant team leaders. One key assumption is that guidance on what is right and wrong is a major motivator for whistleblowing. Organizational policies, as well as teachings and traditions from other occupations, may capture this guidance. In order to develop framework for the protection of whistle blower, enforcement of laws is mandatory. This research use Chordiya, Sabharwal, Relly & Berman (2020) research framework to develop whistle blower protection framework.

This research reviews the literature from different researchers and from different time periods. This researcher will assess previous available work on protection of whistleblowers from retaliation and urge organizations and law enforcement agencies to make regulations accordingly. The research has developed a framework that help whistleblowers from potential threats that may result in reprisal. Every organization is committed to protecting whistleblowers from retaliatory behavior and affording anyone with information about observed, suspected or apparent research misconduct a free environment to share such concerns. Most allegations of research misconduct are not substantiated. Nevertheless, respondents should take such allegations seriously because they can have a negative effect on researchers’ careers. The researcher will assess framework based on Chordiya, Sabharwal, Relly & Berman (2020) with some changes i.e. Ethical Climate, Unbiased & Impartial Top Management and Protection Law Awareness. Klijn (2015) described ethical climate as ‘prevailing perceptions of typical organizational practices and procedures that have an ethical content.’ Based on the criteria used for ethical reasoning, they classified ethical climates into three types: egoistic, principled, and benevolent. In organizations with a largely benevolent ethical climate, the dominant reasoning used to identify and solve ethical problems is the well-being of others. The chief consideration in a largely principled ethical climate is the application and interpretation of rules or law. The egoistic climates are mainly concerned with self-interest. When organization top management accept the whistle blower report of wrong doing, it is said to be unbiased



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and impartial. After the identification it should be ensured to keep the process unbiased at all level specially at top management. Whistle blower should know about protection of whistle blower law, so that they cannot be pressurized in the name of law.

## **Results and Discussion**

### **Results**

Retaliation against whistleblowing is taking serious turns as cases of whistleblowing are increasing day by day. The laws and regulations are the only solution because it can help whistleblowers to save themselves from reprisals and other harms. Retaliation against whistleblowers is taking serious turns as the cases of whistleblowing is increasing. The laws and regulations can help whistleblowers to save themselves from reprisal. The laws are made, but the problem is that there is no implementation of protection laws made for retaliation against whistleblower. To protect whistleblowers from retaliation and to urge organizations and law enforcement agencies to make regulations accordingly. Ethical Climate, Protection laws awareness, Unbiased/Impartial top management are factors studied in this paper. Whistleblowers can be provided safety by these factors. In this research paper, has examined that ethical climate can influence a person's ethical response. Moreover, it can facilitate to secure the whistleblowers from counterattacks. Laws for each type of moral climates e.g. egoistic, principal and benevolent should be made to avoid inconvenience. Safety for whistleblowers can be provided with help of ethical climate. Many laws are made for such situation but general public is not aware whether they exist or not. Public should be notified about these and only then they can be implemented so that organization can have a peaceful environment. Saving whistleblowers can benefit not only the whistleblower but also the whole organization. The management should never take anyone's sides. Leaders in any organization should always do what is right instead of being unbiased. The ethical leadership ill have positive influence on organization's security for whistleblowers. La for unbiased management should be made. We have focused on internal and external whistleblowing in this research. For gathering data, we have explored papers from authoritative websites like google scholar, science direct, jstor, Wiley online, Taylor and Francis etc.

### **Discussion**

The main objective is to protect whistleblowers from retaliation and to urge organizations and law enforcement agencies to make regulations accordingly. Previously, research as done on either external or internal whistleblowing but we have focused on both types. Many laws are made by many countries but are not being implemented, our research also focuses on the implementation of laws. By considering the factors and theories, we can save whistleblowers from retaliation. Research done earlier focused on either external or internal whistleblowing but our research discussed both internal and external whistleblowing. Different studies in different papers were studied. We tried to lay stress on the implementation of laws to save the whistleblowers from counter attacks.

### **Practical implications of the study**

Organization includes employees, customers and stakeholders. The stakeholders can read this paper and gain knowledge. If they face such situation in future in their organization, they can take idea what to do.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Whether to punish or reward whistleblowers and how to protect them. The whole corporate sector can look at this study and know about the factors, theories, law which can help to solve this underrated problem. They can further make rules to avoid misunderstandings in the organizations. Research community can educate people by telling or writing real time whistleblowing and retaliation stories. This way they can shed light on different types of retaliation and whistleblowing. The readers can seek help.

### **Theoretical implications of the study**

Research have found that many people do not blow the whistle for the fear of reprisals because they do not believe that anything will be done with their reporting. Theories were made to generate trust in the whistleblowing system and in organizations to create a speak up culture.

### **Limitations of the study**

We have only studied 120 papers and few countries, so we cannot just say that three factors, 2 theories can be generalized to whole world to stop the whistleblowing from counter-attacks. Moreover, it can happen that a developing country takes better measures to minimize this issue instead of developed ones.

### **Future Recommendations**

More researchers can look for more aspects to know about whistleblowers and retaliation and to protect them from threats. The law makers can identify the gap and make laws accordingly. Researchers should study the sectors other than corporate sector. A more detailed law, policy or guideline to save whistleblowers. Step by step approach by analyzing the situation, taking the potential or real whistleblower in collaboration. This paper focused on both internal and external whistleblowers whereas different other papers only focused on one aspect e.g. only about internal whistleblowers or external whistleblowers.

### **Conclusion**

The organization can be successful if whistleblowers report about the unethical issues, so that the whistleblowers can prove to be a precious asset for the organization. The whistleblower should be protected at every cost because directly or indirectly they are working for the harmony of the organization. Hence, they should be protected. There is no implementation of protection laws made for retaliation against whistleblower. It laid importance on implementation of laws, identified factors and theories which can facilitate to save the whistleblowers. After examining literature, we come to know all that 3 factors ethical climate, protection law awareness and impartial/unbiased top management all three effect on whistleblowing when whistleblower faces retaliation. The theories helped to support our result. When facing a similar situation, even brilliant and successful people can't think of ways to protect the whistleblowers from reprisals, so laws and their implementation has been discussed to provide safety to internal and external whistleblowers.

Whistleblowing is about reporting and complaining misconduct in an organization. There is a high





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

chance of retaliation, which may result in unemployment, mental stress and conflicts in organization but the consequences can be serious. In some cases, the whistle is blown internally and sometimes externally. Some factors are associated with reprisals which include ethical climate, protection law awareness and unbiased top management. The majority of literature as from US, UK, china and Taiwan etc. Much of the research is done in US. And they focused on the same factors. Whistleblowing inside the organizations should be encouraged to solve grave issues and the organization should be ready to face the consequences if whistleblowing is external. Hypothesis were made to support the fact that 3 factors can be helpful to save whistleblowers from retaliation. Furthermore. The findings of this study demonstrates that whistleblowers should be protected at any cost from retaliation by taking ethical climate, law and impartial top management in consideration. Future researcher should focus to address this ethical issue, because directly or indirectly will affect the productivity of the employees and the organization as a whole. It should be a common topic of discussion, so that different point of views by the researchers can be obtained to solve this crucial problem.

## References

Phetsouvanh, S., Datta, A., & Tiu, A. (2021). On unlinkability and denial of service attacks resilience of whistleblower platforms. *Future Generation Computer Systems*, *118*, 438-452.

Dungan, J., Waytz, A., & Young, L. (2015). The psychology of whistleblowing. *Current Opinion in Psychology*, *6*, 129-133.

Prekert, J. D. (2012). Handle with care: Avoiding and managing retaliation claims. *Business Horizons*, *55*(5), 409-415.

Near, J. P., & Miceli, M. P. (2016). After the wrongdoing: What managers should know about whistleblowing. *Business Horizons*, *59*(1), 105-114.

Choo, L., Grimm, V., Horváth, G., & Nitta, K. (2019). Whistleblowing and diffusion of responsibility: An experiment. *European Economic Review*, *119*, 287-301.

Voges, T. S., Jin, Y., Chen, X., & Reber, B. (2022). What drives a tough call: Determining the importance of contingency factors and individual characteristics in communication executives' stance decision-making through a conjoint analysis. *Public Relations Review*, *48*(1), 102141.

Brink, A. G., Eller, C. K., & Gao, L. (2021). He wouldn't, but I would: The effects of pronoun-induced language vividness in whistleblowing policies. *Advances in accounting*, *54*, 100545.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Nisar, T. M., Prabhakar, G., & Torchia, M. (2019). Whistleblowing: When do employees act to ‘blow the whistle’?. *Organizational Dynamics*, 44-49.

Valentine, S., & Godkin, L. (2019). Moral intensity, ethical decision making, and whistleblowing intention. *Journal of Business Research*, 98, 277-288.

Cordis, A. S., & Lambert, E. M. (2017, December). Whistleblower laws and corporate fraud: Evidence from the United States. In *Accounting Forum* (Vol. 41, No. 4, pp. 289-299). No longer published by Elsevier.

Keil, M., & Park, C. (2010). Bad news reporting on troubled IT projects: Reassessing the mediating role of responsibility in the basic whistleblowing model. *Journal of Systems and Software*, 83(11), 2305-2316.

Heese, J., Krishnan, R., & Ramasubramanian, H. (2021). The Department of Justice as a gatekeeper in whistleblower-initiated corporate fraud enforcement: Drivers and consequences. *Journal of Accounting and Economics*, 71(1), 101357.

Heese, J., & Pérez-Cavazos, G. (2021). The effect of retaliation costs on employee whistleblowing. *Journal of Accounting and Economics*, 71(2-3), 101385.

Antinyan, A., Corazzini, L., & Pavesi, F. (2020). Does trust in the government matter for whistleblowing on tax evaders? Survey and experimental evidence. *Journal of economic behavior & organization*, 171, 77-95.

Berentsen, A., Bruegger, E., & Loertscher, S. (2008). On cheating, doping and whistleblowing. *European journal of political economy*, 24(2), 415-436.

Zhang, Z. (2018). Establishing an anti-doping internal whistleblower policy in China. *Journal of sport and health science*, 7(3), 337.

Hennequin, E. (2020). What motivates internal whistleblowing? A typology adapted to the French context. *European Management Journal*, 38(5), 804-813.

Hamblyn, R. (2009). The whistleblower and the canary: rhetorical constructions of climate change. *Journal of Historical Geography*, 35(2), 223-236.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Caillier, J. G. (2017). An examination of the role whistle-blowing education plays in the whistle-blowing process. *The Social Science Journal*, 54(1), 4-12.

Greenwood, C. A. (2015). Whistleblowing in the Fortune 1000: What practitioners told us about wrongdoing in corporations in a pilot study. *Public Relations Review*, 41(4), 490-500.

Brennan, N., & Kelly, J. (2007). A study of whistleblowing among trainee auditors. *The British Accounting Review*, 39(1), 61-87.

Lazar, T. (2022). Organizational scandal on social media: Workers whistleblowing on YouTube and Facebook. *Information and Organization*, 100390.

White, S. M. (2006). Confidentiality, 'no blame culture' and whistleblowing, non-physician practice and accountability. *Best Practice & Research Clinical Anaesthesiology*, 20(4), 525-543.

Ahmad, S. A., Yunus, R. M., Ahmad, R. A. R., & Sanusi, Z. M. (2014). Whistleblowing behaviour: The influence of ethical climates theory. *Procedia-Social and Behavioral Sciences*, 164, 445-450.

Masclet, D., Montmarquette, C., & Viennot-Briot, N. (2019). Can whistleblower programs reduce tax evasion? Experimental evidence. *Journal of Behavioral and Experimental Economics*, 83, 101459.

Schultz, D., & Harutyunyan, K. (2015). Combating corruption: The development of whistleblowing laws in the United States, Europe, and Armenia. *International Comparative Jurisprudence*, 1(2), 87-97.

Mechtenberg, L., Muehlheusser, G., & Roider, A. (2020). Whistleblower protection: Theory and experimental evidence. *European Economic Review*, 126, 103447.

Sumanth, J. J., Mayer, D. M., & Kay, V. S. (2011). Why good guys finish last: The role of justification motives, cognition, and emotion in predicting retaliation against whistleblowers. *Organizational Psychology Review*, 1(2), 165-184.

Wozir, F. M., & Yurtkoru, E. S. (2017). Organizational culture and intentions towards types of whistleblowing: the case of Turkey and Ethiopia. *Research Journal of Business and Management*, 4(4), 527-539.

Lewis, D., & Uys, T. (2007). Protecting whistleblowers at work: A comparison of the impact of British and South African legislation. *Managerial Law*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

De Maria, W. (2006). Common law—common mistakes? Protecting whistleblowers in Australia, New Zealand, South Africa and the United Kingdom. *International Journal of Public Sector Management*.

Rehg, M. T., Miceli, M. P., Near, J. P., & Van Scotter, J. R. (2008). Antecedents and outcomes of retaliation against whistleblowers: Gender differences and power relationships. *Organization Science*, 19(2), 221-240.

Abazi, V. (2020). The European union Whistleblower directive: A ‘Game Changer’ for whistleblowing protection?. *Industrial Law Journal*, 49(4), 640-656.

Taylor, J. (2018). Internal whistle-blowing in the public service: A matter of trust. *Public Administration Review*, 78(5), 717-726.

Seifert, D. L., & Stammerjohan, W. W. (2008). MORAL IDENTITY ASA MODERATOR OF PERCEIVED WHISTLE BLOWING UNDER THREAT OF RETALIATION, NO PROTECTION, AND NO REWARD. *Research on professional responsibility and ethics in accounting*, 41.

Karatuna, I., & Başol, O. (2018). To Blow the Whistle or Not: The Roles of Perceived Organizational Retaliation and Upward Communication Satisfaction in Employee Responses to Observed Wrongdoing. In *Redefining Corporate Social Responsibility*. Emerald Publishing Limited.

Miceli, M. P., & Near, J. P. (2005). Standing up or standing by: What predicts blowing the whistle on organizational wrongdoing?. In *Research in personnel and human resources management*. Emerald Group Publishing Limited.

Di Salvo, P. (2021). Securing Whistleblowing in the Digital Age: SecureDrop and the Changing Journalistic Practices for Source Protection. *Digital Journalism*, 9(4), 443-460.

Bishop-Monroe, R., Cockrell, S. R., Harrison, B. M. D. P., & Miller, G. J. (2021). Thank you whistleblower! How organizations can cultivate whistleblower activity to enhance business success. *Organizational Dynamics*, 50(4), 100814.

Dungan, J. A., Young, L., & Waytz, A. (2019). The power of moral concerns in predicting whistleblowing decisions. *Journal of Experimental Social Psychology*, 85, 103848.

Vandekerckhove, W., & Phillips, A. (2019). Whistleblowing as a protracted process: A study of UK whistleblower journeys. *Journal of Business Ethics*, 159(1), 201-219.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Mechtenberg, L., Muehlheusser, G., & Roider, A. (2020). Whistleblower protection: Theory and experimental evidence. *European Economic Review*, 126, 103447.

Jeon, S. H. (2017). Where to report wrongdoings? Exploring the determinants of internal versus external whistleblowing. *International Review of Public Administration*, 22(2), 153-171.

Nwoke, U. (2019). Whistle-blowing as a corporate governance mechanism: South Africa and Nigeria in perspective. *Journal of Corporate Law Studies*, 19(2), 421-450.

Dasgupta, S., & Kesharwani, A. (2010). Whistleblowing: A survey of literature. *The IUP Journal of Corporate Governance*, 9(4), 57-70.

Cordis, A. S., & Lambert, E. M. (2017, December). Whistleblower laws and corporate fraud: Evidence from the United States. In *Accounting Forum* (Vol. 41, No. 4, pp. 289-299). No longer published by Elsevier.

Bjørkelo, B., & Matthiesen, S. B. (2011). Preventing and dealing with retaliation against whistleblowers.

Near, J. P., & Miceli, M. P. (1996). Whistle-blowing: Myth and reality. *Journal of management*, 22(3), 507-526.

Hennequin, E. (2020). What motivates internal whistleblowing? A typology adapted to the French context. *European Management Journal*, 38(5), 804-813.

Yeoh, P. (2014). Whistleblowing: motivations, corporate self-regulation, and the law. *International Journal of Law and Management*.

Xiao, F., & Wong-On-Wing, B. (2021). Employee Sensitivity to the Risk of Whistleblowing via Social Media: The Role of Social Media Strategy and Policy. *Journal of Business Ethics*, 1-24.

Culiberg, B., & Mihelič, K. K. (2017). The evolution of whistleblowing studies: A critical review and research agenda. *Journal of Business Ethics*, 146(4), 787-803.

Bosua, R., Milton, S., Dreyfus, S., & Lederman, R. (2014). Going public: Researching external whistleblowing in a new media age. In *International handbook on whistleblowing research*. Edward Elgar Publishing.





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Bashir, S., Khattak, H. R., Hanif, A., & Chohan, S. N. (2011). Whistle-blowing in public sector organizations: Evidence from Pakistan. *The American Review of Public Administration*, 41(3), 285-296.
- Eulaiwi, B., Al-Hadi, A., Duong, L., Clark, K., Taylor, G., & Perrin, B. (2021). Audit pricing and corporate whistleblower governance: evidence from Australian financial firms. *Accounting & Finance*.
- Akinkugbe, O. D. (2018). Informal networks of corruption: assessing the challenges for public sector whistleblowing in Nigeria. *Jindal Global Law Review*, 9(1), 11-28.
- Taylor, J. (2019). What causes employees to whistle while they work? Factors affecting internal whistleblowing in the Australian Public Service. *Australian Journal of Public Administration*, 78(4), 497-515.
- Bezemer, P. J., Nicholson, G., & Pugliese, A. (2018). The influence of board chairs on director engagement: A case-based exploration of boardroom decision-making. *Corporate Governance: An International Review*, 26(3), 219-234.
- Chang, Y., Wilding, M., & Shin, M. C. (2017). Determinants of whistleblowing intention: evidence from the South Korean government. *Public Performance & Management Review*, 40(4), 676-700.
- Kyu Wang, T., Fu, K. J., & Yang, K. (2018). Do good workplace relationships encourage employee whistle-blowing?. *Public Performance & Management Review*, 41(4), 768-789.
- Prouska, R., & Psychogios, A. (2018). Do not say a word! Conceptualizing employee silence in a long-term crisis context. *The International Journal of Human Resource Management*, 29(5), 885-914.
- Dworkin, T. M., & Baucus, M. S. (1998). Internal vs. external whistleblowers: A comparison of whistleblowing processes. *Journal of business ethics*, 17(12), 1281-1298.
- Mawanga, F. (2014). Perceived retaliation against internal whistleblowers: Evidence from public Institutions in Sub-Saharan Africa. *EJBO: Electronic Journal of Business Ethics and Organizational Studies*.
- Hall, K., & Brown, A. J. (2018). From symbols to systems: progress in the reform of Australia's private sector whistleblowing laws. *Law and Financial Markets Review*, 12(1), 7-17.
- Moberly, R. (2008). Protecting whistleblowers by contract. *U. Colo. L. Rev.*, 79, 975.
- Farooqi, S., Abid, G., & Ahmed, A. (2017). How bad it is to be good: Impact of organizational ethical culture on whistleblowing (the ethical partners). *Arab Economic and Business Journal*, 12(2), 69-80.
- Keil, M., Park, E. H., & Ramesh, B. (2018). Violations of health information privacy: The role of attributions and anticipated regret in shaping whistle-blowing intentions. *Information Systems Journal*, 28(5), 818-848
- Exmeyer, P. C. (2020). Inside Job: Exploring the connection between whistleblowing and perceptions of procedural justice. *Public Integrity*, 22(1), 18-38.
- Hoekstra, A., & Talsma, J. (2021). Introducing a new key player in internal whistleblowing procedures: Examining the position of confidential advisers. *Public Integrity*, 23(1), 52-67.
- Lee, G., & Xiao, X. (2018). Whistleblowing on accounting-related misconduct: A synthesis of the literature. *Journal of Accounting Literature*, 41, 22-46.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Park, H., & Lewis, D. (2018). The negative health effects of external whistleblowing: A study of some key factors. *The Social Science Journal*, 55(4), 387-395.
- Kenny, K., Fotaki, M., & Scriver, S. (2019). Mental health as a weapon: Whistleblower retaliation and normative violence. *Journal of Business Ethics*, 160(3), 801-815.
- Lee, G., Pittroff, E., & Turner, M. J. (2020). Is a uniform approach to whistle-blowing regulation effective? Evidence from the United States and Germany. *Journal of Business Ethics*, 163(3), 553-576.
- Liu, Y., Zhao, S., Li, R., Zhou, L., & Tian, F. (2018). The relationship between organizational identification and internal whistle-blowing: the joint moderating effects of perceived ethical climate and proactive personality. *Review of Managerial Science*, 12(1), 113-134.
- Park, S., & Jeon, S. H. (2021). Merit Principles Merit Further Investigation: The Influence on Employee Perception of Whistleblowing. *International Journal of Public Administration*, 1-13.
- Mesmer-Magnus, J. R., & Viswesvaran, C. (2005). Whistleblowing in organizations: An examination of correlates of whistleblowing intentions, actions, and retaliation. *Journal of business ethics*, 62(3), 277-297.
- Lam, H., & Harcourt, M. (2019). Whistle-blowing in the digital era: motives, issues and recommendations. *New Technology, Work and Employment*, 34(2), 174-190.
- Nie, J. B., & Elliott, C. (2020). Humiliating whistle-blowers: Li Wenliang, the response to COVID-19, and the call for a decent society. *Journal of bioethical inquiry*, 17(4), 543-54
- Chordiya, R., Sabharwal, M., Relly, J. E., & Berman, E. M. (2020). Organizational protection for whistleblowers: A cross-national study. *Public Management Review*, 22(4), 527-552.
- Near, J. P., & Jensen, T. C. (1983). The whistleblowing process: Retaliation and perceived effectiveness. *Work and Occupations*, 10(1), 3-28.
- Quayle, A. (2021). Whistleblowing and accounting for the public interest: a call for new directions. *Accounting, Auditing & Accountability Journal*.
- Okafor, O. N., Adebisi, F. A., Opara, M., & Okafor, C. B. (2020). Deployment of whistleblowing as an accountability mechanism to curb corruption and fraud in a developing democracy. *Accounting, Auditing & Accountability Journal*.
- Nawawi, A., & Salin, A. S. A. P. (2018). Employee fraud and misconduct: empirical evidence from a telecommunication company. *Information & Computer Security*.
- Al-Haidar, F. (2018). Whistleblowing in Kuwait and UK against Corruption and Misconduct. *International Journal of Law and Management*.
- Yeoh, P. (2014). Whistleblowing: motivations, corporate self-regulation, and the law. *International Journal of Law and Management*.
- Lewis, D. (2022). Retaliation for whistleblowing: some case studies on the experience of re-employment/redeployment. *International Journal of Law and Management*.
- Nurhidayat, I., & Kusumasari, B. (2019). Why would whistleblowers dare to reveal wrongdoings? An ethical challenge and dilemma for organisations. *International Journal of Law and Management*.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Marwaha, K. (2017). Corporate governance and whistle blowing in India: promises or reality?. *International Journal of Law and Management*.

Akhtar, M. W., Javed, M., Syed, F., Aslam, M. K., & Hussain, K. (2020). Say no to wrongdoing: the serial mediation model of responsible leadership and whistleblowing intentions. *International Journal of Manpower*.

Yang, L., & Xu, R. (2020). The effects of retaliation on whistleblowing intentions in China banking industry. *Journal of Accounting & Organizational Change*.

Krambia-Kapardis, M. (2020). An exploratory empirical study of whistleblowing and whistleblowers. *Journal of Financial Crime*.

Peltier-Rivest, D. (2018). The battle against fraud: do reporting mechanisms work?. *Journal of Financial Crime*.

Smaili, N., & Arroyo, P. (2021). Triggering changes in corporate governance: before and after external whistleblowing. *Journal of Financial Crime*.

Nurhidayat, I., & Kusumasari, B. (2018). Strengthening the effectiveness of whistleblowing system: A study for the implementation of anti-corruption policy in Indonesia. *Journal of Financial Crime*.

Nuswantara, D. A. (2022). Reframing whistleblowing intention: an analysis of individual and situational factors. *Journal of Financial Crime*.

Kanojia, S., Sachdeva, S., & Sharma, J. P. (2020). Retaliatory effect on whistle blowing intentions: a study of Indian employees. *Journal of Financial Crime*.

Gibbs, T. (2020). Whistleblowing: protection or discouragement. *Journal of Money Laundering Control*.

Zhou, L., Liu, Y., Chen, Z., & Zhao, S. (2018). Psychological mechanisms linking ethical climate to employee whistle-blowing intention. *Journal of Managerial Psychology*.

House, B. B., Johnston, P. L., & Worcester, C. (2014). SEC's enforcement action against hedge fund adviser for retaliation against a whistleblower highlights challenges employers face. *Journal of Investment Compliance*.

De Zwart, A. P. (2020). EU whistleblowing rules to change in favor of whistleblowers. *Journal of investment compliance*.

Madupalli, R. K., & Poddar, A. (2014). Problematic customers and customer service employee retaliation. *Journal of services marketing*.

Iwai, T., Yeung, L., & Artes, R. (2021). Voice or silence: antecedents of whistleblowing intentions. *RAUSP Management Journal*, 56, 186-201.

Tudu, P. N. (2021). Blow whistle, should I or shouldn't I: a study on moderating effect of perceived organizational support on intention to blow the whistle among Indian Government employees. *Society and Business Review*.

Miceli, M. P., & Near, J. P. (1994). Relationships among value congruence, perceived victimization, and retaliation against whistle-blowers. *Journal of Management*, 20(4), 773-794.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Hobby, C. (2020). Worker and organisational protection: the future of whistleblowing in the Gig Economy. In *Conflict and shifting boundaries in the gig economy: An interdisciplinary analysis*. Emerald Publishing Limited.

Miceli, M. P., Near, J. P., & Schwenk, C. R. (1991). Who blows the whistle and why?. *Ilr Review*, 45(1), 113-130.

Zeng, C., Kelly, S., & Goke, R. (2020). Exploring the impacts of leader integrity and ethics on upward dissent and whistleblowing intentions. *Communication Reports*, 33(2), 82-94.

Fredin, A., Venkatesh, R., Riley, J., & Eldridge, S. W. (2019). “The Road Not Taken”: A Study of Moral Intensity, Whistleblowing, and Regret. *Ethics & Behavior*, 29(4), 320-340.

Afriyenti, M. (2018, July). The Influence of Moral Reasoning and Gender towards Whistleblowing Intention. In *1st International Conference on Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA 2018), West Sumatera, Indonesia*.

Davis, M. (1996). Some paradoxes of whistleblowing. *Business & Professional Ethics Journal*, 3-19.

De Graaf, G. (2010). A report on reporting: Why peers report integrity and law violations in public organizations. *Public Administration Review*, 70(5), 767-779.

Near, J. P., & Miceli, M. P. (1995). Effective-whistle blowing. *Academy of management review*, 20(3), 679-708.

Berman, E. M. (2013). “Human Resource Management in the Asia-Pacific Region: Symposium Introduction.” *Review of Public Personnel Administration* 33 (2): 115–120. doi:10.1177/0734371X13484830.

Chordiya, R., M. Sabharwal, and R. Paul Battaglio. (2018). “Dispositional and Organizational Sources of Job Satisfaction: A Cross-National Study.” *Public Management Review*. doi:10.1080/14719037.2018.1544274.

Klijin, E.-H., T. Ysa, V. Sierra, E. Berman, J. Edelenbos, and D. Y. Chen. (2015). “The Influence of Network Management and Complexity on Network Performance in Taiwan, Spain and the Netherlands.” *Public Management Review* 17 (5): 736–764. doi:10.1080/14719037.2014.957340.

Rashmi Chordiya, Meghna Sabharwal, Jeannine E. Relly & Evan M. Berman (2020) Organizational protection for whistleblowers: a cross-national study, *Public Management Review*, 22:4, 527-552, DOI: 10.1080/14719037.2019.1599058

Thaler, J., and B. Helmig. (2016). “Do Codes of Conduct and Ethical Leadership Influence Public Employees’ Attitudes and Behaviours? an Experimental Analysis.” *Public Management Review* 18 (9): 1365–1399. doi:10.1080/14719037.2015.1103890.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Co-Movement Between Pakistan Stock Exchange Index, Gold Price and Foreign Exchange Rate: A Wavelet Analysis**

Dr. Tehmina Fiaz Qazi

University of the Punjab, Lahore

Dr. Abdul Aziz Khan Niazi

University of Engineering and Technology, Kala Shah Kaku

Majid Shafi Ahmad

University of Engineering and Technology, Lahore

### **Abstract**

The stock market is intricately linked with the economy and is amongst the most important financial markets. Numerous studies have been conducted to analyze the aspects of these effects and the association between commodities, which affect the performance of the stock market. Thus, in similarity to other countries, Pakistan, has been exposed to numerous economic shocks triggered through changes in the values of different commodities and environmental factors. Thus, the present study adopts the wavelet analysis technique to study the linkage and co-movement between Pakistan stock exchange, foreign exchange rate and gold prices. The study used data from the last 19 years to study the co-movements between the factors to find out the volatility and relationship between KSE-100, gold rates, and forex. The results indicated presence of a strong and positive correlation between forex rates and stock returns whereas the correlation between stock returns and gold prices was significant but positively moderate. The wavelet analysis confirmed presence of significant volatility through the CWT estimation, whereas the coherence analysis and the cross-wavelet transform indicated that the co-movement between gold, forex and stock returns was significant. However, the estimation indicated evidence of stronger co-movement between forex rates and stock returns. Also, the stock returns and forex rates are highly volatile to crisis. These findings are useful for the policymakers, portfolio managers and investors.

**Keywords:** Wavelet Analysis, Stock Returns, Forex Rate, Cross Wavelet Analysis, Coherence Analysis

### **Introduction**

The Pakistan Stock Exchange (PSX) has its trading floors in Karachi, Lahore and Islamabad, this market, after the merger is known as PSX since January 11, 2016, right now, there are almost 540 companies that are listed with the PSX (Su, Qin et al. 2020). For the previous few years, based on the value and the volumes, the stock market of Pakistan has shown rapid growth which has not only created increased level of capital inflows but also several opportunities have also been witnessed from the emerging markets as well as the developed markets (Adekoya and Oliyide 2020). Nonetheless, it has also been observed that the emerging markets right now, are subjected to vulnerability towards the global news, happenings and certain events that are resulting in environment that is uncertain and highly volatile, around the globe it is believed that as a result of fluctuations in the prices of the crude oil, the world will have to face how crude oil prices and high level of volatility as well (Aftab, Shah et al. 2019). However, since previous few years, the stock market of Pakistan and the PSX index has been impacted by varied factors, and fluctuating growth, opportunities and capital inflows have also been observed





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

through different evidence and incidents. It has caught the interest of various researchers that different economic factors are impacting the PSX index, moreover, all of these factors are interrelated as well and are impacting each other (Hassan, Aliyu et al. 2020). The relationships present between these factors is complex and is yet under study by most of the researchers. Out of all the factors that have yet been studied, most prominent factors that have caught the interest of the researchers involve the factors of gold price and foreign exchange rates.

At present, the emerging markets are experiencing economic instability due to latent influence of the prices of gold and changes in the foreign exchange rate. Pakistan is no exception to the other emerging markets and the rationale of the present study was that both gold and foreign exchange rate are significant factors and there has been some evidence of positive correlation among these factors and the performance of the PSX (Hassan et al., 2020). However, there has been a lack of research and attention given to the impact and co-movement of the gold price, foreign exchange rate, and PSX index as indicated by Haniff and Masih (2018). The previous studies have found that gold price and foreign exchange rate quantify positive and negative changes in the stock index, impacts have been observed both in the short and the long run. However, most of the previous literature fails to provide a clear relationship between the intensity and direction of these factors, specifically in the case of Pakistan. Thus, in the context of and for the purpose of this study it was hypothesized that there is co-movement between gold prices, foreign exchange rate and PSX index.

The method being applied to study the co-movement of gold price and foreign exchange rate and PSX index is the wavelet analysis technique. As this method allows to decompose the time series data into multiple time series that are associated over multiple time scales and allows the researcher to evaluate various frequencies at which the co-movement occurs. This technique was allowed the researcher to pinpoint the dynamics within the time series and judge the level of interdependencies between various time series, which cannot be observed in an ordinary time series analysis method. There are several factors related to the usage of this technique that will help in uncovering the nature of the interdependencies among the factors under consideration. First, the wavelet analysis technique does not require stationarity, which is beneficial as the prices of gold and the foreign exchange rate do not remain stationary over time (Aguar-Conraria et al., 2018; Resch et al., 2008). Secondly, the decisions of investors and stock market regulators are based on long-term plans and are neither easily nor quickly made. Hence, it is vital to consider the long as well as short-term decisions, factors that influence these decisions and outcomes of these decisions studied simultaneously at various intervals of time. All these factors will be uncovered in detail with the usage of the wavelet analysis technique.

## **Literature Review**

### **Linkage of Gold Price Fluctuations with Stock Exchange Index**

The debate on the impact of gold prices on the stock market is ongoing and many researchers have tried to settle it. It is usually a conception that the gold is a safer investment as compared to stocks or vice versa and most researchers have conducted a risk to return trait comparison. Some of the researchers proposed the fact that gold is a hedge against inflation and is more often considered as a reliable investment in the long term. Several studies have proven this in terms of developed, developing and emerging countries as well (Baur and Lucey 2010, Baur and McDermott 2010, Sreekanth and Veni 2014, Srinivasan 2014, Akkoc and Civcir 2019). However, Beckmann, Berger et al. (2015) pointed out



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

from their obtained results that the capability of using gold as a hedge against inflation varies from country to country and does not show a stable trend.

The study of Jiang, Jiang et al. (2019) argues a significant level of liquidity of gold and high level of co-movement present between gold prices and stock index, moreover, the price of this factor and the prices of the stock in the stock market are argued to be the two most important factors playing irreplaceable roles in the economy by (Majid 2018). Karabulut, Bilgin et al. (2020) have significantly examined the roles of oil, gold, and other real assets in impacting the stock index, the research has concluded that gold and oil both are the alternatives that investors look for, at the time of financial downturns, hence impacting the stock index and market highly. Moreover, according to Majid (2018), gold prices also impact the PSX index because of the positive correlation with inflation, gold is considered to be an inflationary hedge.

Bakhsh and Khan (2019) studied the interdependencies of gold and stock exchange rates. It also studied the bilateral direct relationship between gold prices and stock exchange rates i.e., decrease in gold prices will decrease the stock market rate. Investors are risk prone, and they want million ways to escape from investment risk. It is also observed that investors are ready to invest in safe stocks rather than financing in fluctuating and hazardous commodities. Gold is a safe commodity, and it strongly reflects stock prices in Pakistan. Gold and stocks co-move i.e., an increase in gold prices will significantly increase the stock exchange index and vice versa. This study has great importance in the literature of gold and stock exchange index because it will enable big authorities and major investors a sneak peek to the interdependencies of gold prices and stocks and its effect on each other but there is still need to explore this relationship and inquire about the changing behaviors of the investors. Raza, Shahzad et al. (2016) also investigated the asymmetrical impact of gold prices on stock markets of emerging economies. It is also observed that this impact may vary in long- and short-term investment trends. Hence gold is a profitable investment indicator and gold prices have positive impact on developed economies and negative impact on emerging economies. Pakistan is an emerging economy and stock exchange uncertainties are more vulnerable than the other developed stock exchange index of the globe. That is why investors are reluctant to invest in downturn condition and prefer to invest in gold. This study highlighted the uneven relationship between gold prices and stock exchange index.

Afsal and Haque (2016) specified in the research article that, there is non-linear relationship between gold price and stock exchange index. It also investigated that people are ready to invest in stock even if the index is going down. This study negates the affectual relationship of gold prices and stock exchange index. Though this study has great importance in the literature of stock exchange but the aim of this research paper is to analyze the investment trend and effect of gold price fluctuation on PSX index. Najaf and Najaf (2016) have said that fiscal crisis has hit emerging economies hard and Pakistan is also one of those countries. People are reluctant to invest in politically instable economies which raised the need to invest in gold. KSE is the most profitable stock exchange of Pakistan but despite of all this gold is the attracting investment opportunity for the investor. Global gold market has shown upward statistics which captured the investors rather than investing in stocks. Continuous increase in gold prices have lowered the stock index rate in Pakistan and investors are buying gold with an aim of increase in price in future will result in high profit. Gold and stocks negatively proportionate to each other and investment in stock exchange is deemed as less protective and involves high risks with low return on investment. Basher and Sadorsky (2016) have identified that there is conditional correlation between gold and stock



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

exchange index. Investors prefer to invest in gold rather than stock exchange securities and it is also observed that emerging communities are vulnerable to causalities and inflation is also one of the biggest threats to lose value of money by investing in the stocks. Decrease in gold prices significantly attracts stock investors as it is termed as token of safety and quick return method. Gold is safest investment and investor prefer gold over stock market shares is being admitted in number of research studies (Mukhuti and Bhunia 2013, Srinivasan 2014, Bhuyan and Dash 2018).

### **Linkage of Foreign Exchange Rates with Stock Exchange Index**

Foreign exchange rates are currency rate of one country in terms of the rate of currency of another country. Nawaz, Azam et al. (2020) suggested the significant link between foreign exchange rates and PSX index, mainly because elevated level of mobility is present in the case of funds and investments, and these activities happen across the borders. The study of Qin, Su et al. (2020) suggests that, increase in foreign exchange rates also increases the stock index, with depreciation of domestic currency, the domestic firms are facilitated to enhance exports and to be more competitive, with increasing exports, the stock index will also increase significantly. However, another research has concluded negative impacts of foreign exchange rates on stock index, so mixed results have been obtained so far (Raza, Shahzad et al. 2016, Qureshi, Rehman et al. 2018). A significant relationship has been judged between foreign exchange rates and PSX index, mainly because of the mobility of the investments and funds present largely cross border (Dong, Chang et al. 2019). From previous studies and evidence, it has been proven that the increase in foreign exchange rates also increases the stock index, it is believed because, with depreciation of domestic currency, the domestic firms are facilitated to enhance exports and to be more competitive, with increasing exports, the stock index will also increase significantly. The study of Aftab, Shah et al. (2019), has proposed that the financial crisis around the globe that occurred in 2007 and 2008 has completely disrupted the crude oil market mechanism and the synchronized casualty present between the equity market and the crude oil market has been empowered after this period of crisis (Wen, Wang et al. 2020). It shows that the impact of commodities like oil and gold can impact the economy significantly.

Foreign exchange market is one of the important financial arcades of Pakistan and it plays important role in development of financial position of a country. Bagh, Azad et al. (2017) have identified in his experimental research study that foreign exchange rates significantly impact PSX index. Stock market movement impact nation's economy and it also alter investment trends in the country. High exports increase value of the money and hence it significantly impacts the foreign exchange rate.

Capital market and macroeconomic indicators are said to be the driving engine to growth and high investment orientation. Stable foreign exchange rates bring stability in economy, and it led towards high trust on domestic financial markets. Causalities hit hard to emerging countries e.g. Pakistan, and it negatively affect the foreign exchange market and inflation in domestic country (Erdoğan, Gedikli et al. 2020). Foreign exchange rates are measured by other country's economic situation and yet Pakistan is facing high foreign change rates against US Dollar and low exports are one of the reasons that domestic stock market index is highly neglected by the domestic investors for investment. Dollar is an international exchange currency and high exports insignificantly lower domestic currency value. Shabbir and Muhammad (2019) has also investigated the long term and short-term impact of high foreign exchange rates on domestic stock market index of Pakistan. They also examined that foreign investment



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

lower domestic stock market value, and it reduces return on investment as well. High exports are said to be the best solution to strengthen domestic currency and it reduce inflation. Pakistan is an emerging economy and high annual import shows unfavorable balance in foreign market. Decreased value of money lays insignificant impact on stock market index and it directly proportionate to investment as well.

## Continuous Wavelet Transform Vs. Discrete Wavelet Transform

### Continuous Wavelet Transform

In mathematics, the continuous wavelet transform is known as the formal tool which considers the overcomplete representation of the signals by letting the scale parameter and translation of the wavelets vary in a continuous form. For the function  $\psi(t) \in L^2(\mathbb{R})$ , to become a mother wavelet or to qualify for being a mother wavelet, a specific requirement is imposed which makes it the mother wavelet after its satisfaction. Condition or technical term is known as the admissibility condition which is represented by the following equation 2.1 (Wang, Ren et al. 2013):

$$0 < C_\psi := \int_{-\infty}^{\infty} \frac{|\psi(\omega)|}{|\omega|} d\omega < \infty; \text{ (Eq. 2.1)}$$

The factor  $C_\psi$ , in the equation above is called as the admissibility constant, it is also pointed out by various researchers that the square integrability of the factor  $\psi(t)$  includes mild decay condition, in the practical case, there is imposition of more stringent conditions as well. According to the study of Sohrabi, Kamali et al. (2011), majorly in order to provide with the useful time frequency localization, the wavelet is supposed to be reasonable and significantly localized function at the same time, both in the case of the frequency domain and in the case of the time domain..

### Discrete Wavelet Transform

On the other hand, the discrete wavelet transform involves the transform which decomposes a provided signal into several sets, all of the sets represent time series of the coefficients explaining the time evolution of the signal in the form of corresponding frequency band (Balili, Sobrepena et al. 2015). According to the study of Aguiar-Conraria and Soares (2014), in the numerical analysis the discrete wavelet transform involves the wavelets that are discretely sampled, above the other wavelet transforms, it has the advantage of the temporal resolution. The temporal resolution involves the location information and the frequency information as well (Wang, Ren et al. 2013).

There are several applications of the discrete wavelet transform, it applies to different fields including computer science, engineering and mathematics, but it is significantly utilized for signal coding Sohrabi, Kamali et al. (2011), for the representation of the discrete signals in a very redundant form like preconditioning for the compression of data. The practical applications of discrete wavelet transform involves gait analysis, in which there are signal processing of the accelerations, the image processing included in the digital communications and several other applications as well (Ribeiro and Clark 2015). It is proposed in various studies that wavelet transform can be significantly implemented like analog filter bank in the case of the biomedical signal processing methods for the formulation of low power pacemakers, and these are also utilized in the ultrawideband wireless communications (Nanayakkara, Rajapakse et al. 2011).

The following table highlights the key differences between the continuous and the discrete wavelet





**Table 0.1: Difference between Continuous and Discrete Wavelet Transform**

Feature	Continuous Wavelet	Discrete Wavelet
<b>Definition</b>	A mathematical tool that represents the signals by letting the scale parameter and translation of the wavelets vary in a continuous form.	A mathematical operation that decomposes a provided signal into several sets, where each sets represents time series of the coefficients and shows the time evolution of the signal in the form of corresponding frequency.
<b>Expression</b>	$\psi_{\tau,s}(t) := \frac{1}{\sqrt{ s }} \psi\left(\frac{t-\tau}{s}\right)$ , $s, \tau \in \mathbb{R}, s \neq 0$ ; (Eq. 2.2)	$y[n] = \sum_{k=-\infty}^{\infty} x[k] g[n-k]$ ; (Eq. 2.3)
<b>Information presented</b>	localization in both the case of the frequency and the time.	location information and the frequency information.
<b>Practical applications</b>	analog filter bank in the case of the biomedical signal processing methods for the formulation of low power pacemakers, and these are also utilized in the ultrawideband wireless communications.	Gait analysis, in which there are signal processing of the accelerations, the image processing included in the digital communications.
<b>Base</b>	A base which involves fractional power of two, as an example, $2^{1/\nu}$ , where $\nu$ represents integers there that has value greater than one, moreover, this integer is also called by as the voices per octave.	The scale parameter is discretized to the integer powers involving, $2, 2^j$ , whereas $j$ can be equal to 1, 2, 3 or so on. So, in the case of the voices per octave the value is always equal to 1.
<b>Scales</b>	Most of the time, in the continuous wavelet transform, the exponential scales are utilized having a base that is lower than two.	the discrete wavelet transform always applies exponential scales having base equal to the value of 2.

### Fourier Transform Vs. Wavelet Transform

#### Fourier Transform

In mathematics, Fourier transform method is defined as a mathematical transform method that is responsible for the decomposing functions depending on time or space into functions that are depending on the temporal or special frequency. The scholar Joseph Fourier applied this analytical and mathematical technique which is being proposed for the proposal of the instructive examples (Zhang, Jing et al. 2012). The Fourier transforms are the algorithm which are associated class of permutation and the tensor products. The products of the algebraic properties and the related permutations are used to derive different aspects of the Cooley Turkey fast Fourier algorithm and Fourier (Prasad, Manna et al. 2014).





### Wavelet Transform

According to the study of Vanga and Ganesh (2012) the wavelet transformation is essential method to conduct any kind of study as it has directly related to the algorithm approaches. There are some advantages and some disadvantages of the wavelet transform as well. The global frequency information is captured by the Fourier transform. These frequencies are the persist over an entire signal of the Fourier (Zhang, Jing et al. 2012). For overcoming the disadvantage of the Fourier approach the scholars have prepared the wavelet transform approach which is the decomposition function of the wavelets in the form of ECG's. This has shown the intervals. A wavelet is a wave like oscillation that is the theory which is localized in time (Vanga and Ganesh 2012). The scale and location are the two major properties of the wavelet transform. The stretch of the wavelet is called as the scale. And the location defined that where the wavelet is positioned in the time series or any space. This type of transform is beneficial over the Fourier transform as it has the capabilities to interpret this stance easily (Prasad, Manna et al. 2014).

**Table 0.2: Difference between Fourier and Wavelet Transform**

Characteristics	Fourier Transform	Wavelet Transform
<b>Definition</b>	A mathematical operation or function that changes the signal domain from time to frequency.	Mathematical operation used for dividing a time signal into different scale components
<b>Expression</b>	$X(\omega) = \int_{-\infty}^{+\infty} x(t) \cdot e^{-i\omega t} dt$ ; (Eq. 2.4)	$0 < C_{\psi} := \int_{-\infty}^{\infty} \frac{ \psi(\omega) }{ \omega } d\omega < \infty$ ; (Eq. 2.5)
<b>Suitability</b>	Only suitable for stationary signals	Suitable and applied on stationary and non-stationary signals
<b>Signal information</b>	Converts signals from time domain to the frequency domain. It provides two-dimensional information relating to the amplitude and frequency components of the signal.	Presents three-dimensional information about the signals i.e., information relation to the frequency components, amplitude of the different frequencies and the time component at which each signal exists.
<b>Time resolution</b>	FT has high frequency resolution and zero-time resolution.	High frequency and time resolution.
<b>Signal behaviour</b>	It is not suitable for studying the local behavior of the signals.	Suitable for evaluation and study of the local behavior of the signal for example studies involving evaluation of the spikes and discontinuity in the signals.
<b>Input and output</b>	The input may either be real or complex whereas the output is always complex.	The input and output both may either be real or complex functions.
<b>Signal processing</b>	Captures the global frequency information, which means regarding the frequencies that persist for an entire	Simultaneous localization in both the frequency domain and the time domain



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

	signal	
<b>Shape of wave</b>	The shape of the wave is well-defined, smooth and can be predicted.	Signal is transformed into translated and scaled version of mother wavelet which is very unpredictable and irregular.

## Methods

### Data Collection

Secondary Data was collected from the website of Pakistan Stock Exchange Limited, the researcher aims to find out the fluctuations in stock index based on the gold price and foreign exchange rate. A general approach was used in this thesis to evaluate whether the previous year incidents caused abnormality in returns of stock prices listed in the KSE-100 index, and gold prices or not; for this purpose, data on daily basis was analyzed. A similar study has used the same sample dataset for checking the impact of a particular event on stock prices (Mann and Babbar 2017). Similarly, the event-based research also supports the selection of the present study sample (Lodha, Kumawat et al. 2018). Further, all the secondary data will be retrieved from website for analysis in the present study.

KSE-100 index' data was assessed through the official website of the Pakistan Stock Exchange. This database will be accessed to obtain the daily returns of the stock market in Pakistan. For the data of daily gold prices and the data of daily foreign exchange rate of the US Dollar to the PKR, an authentic database of Forex.pk was accessed. As the objective of the study was to evaluate the impact of external environmental (i.e., International) influence on stock prices in relation to the other assets including all the above-mentioned ones, daily data was computed will be ordered to represent all the changes occurred during the selected timeline.

### Measures

The data of the KSE-100 index was used as an indicator of the stock market of Pakistan. The closing prices of the daily index was used to calculate the daily returns. Per ounce gold rate was retrieved from the website on the daily basis. US dollar was taken as foreign exchange currency from the website on the daily basis. All the data was collected from the official and trustworthy websites by considering every code of ethical conduct in addition to sustaining the credibility of the whole research process.

As already discussed previously, this study was based on wavelet analysis using continuous wavelet transform analysis technique for the purpose of finding the co-movement between PSX index, foreign exchange rate and gold price. In mathematics, the continuous wavelet transform is considered as a formal tool that is utilized for the purpose of getting over complete representation of a signal by letting the scale parameter and translation of wavelets vary in a constant way, continuously. This method is adopted over here as the wavelet transform method has been adopted by various studies successfully and is used for the interpretation of the time series of landslides (Chaovalit, Gangopadhyay et al. 2011, Chen, Li et al. 2016). Furthermore, the continuous wavelet transform is a very significant method that is utilized for the determination off the damping ratio regarding oscillating signals by various studies (Liu, Cao et al. 2015, Daubechies and Maes 2017). In addition, the continuous wavelet transform method is a very resistant method to the noise in the signals. Moreover, the properties of the continuous wavelet



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

transform method are incredibly unique and significant as well, which adds another reason to why this method is being implemented in this study.

### Analysis And Results

In *table 4.1*, all three of the variables are within the normal range and hence can be termed to be not skewed. Kurtosis statistic is a measure used for showing whether the data is heavy tailed (means that data has outliers) or light tailed (means it is normal). The threshold for Kurtosis is between -3 and +3. The table shows that all three variables have Kurtosis value in within range. Finally, the confidence level vales are calculated in this study. The confidence interval of 95% is used in this study. The 95% confidence interval is a value that predicts if chances of actual population falling in the error for arithmetic mean. As *table 4.2* shows the values for all three variables to be lower than the errors, they are significantly in the 95% confidence interval.

**Table 0.1: Descriptive Statistics**

Description	PSX Index (KSE-100)	Gold Price (Per Oz in USD)	Forex Rate (USD to PKR)
Mean	20,340.52	1,078.60	91.41
Standard Error	173.66	5.61	0.37
Median	13,661.58	1,246.75	86.47
Mode	9,187.10	424.70	104.80
Standard Deviation	14,543.88	469.89	30.61
Sample Variance	211,524,419.79	220,797.97	936.99
Kurtosis	- 1.24	- 1.16	0.03
Skewness	0.49	- 0.26	0.85
Range	51,545.73	1,791.30	111.25
Minimum	1,330.73	278.10	57.00
Maximum	52,876.46	2,069.40	168.25
Sum	142,668,408.81	7,565,296.37	641,123.85



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

<b>Count</b>	7,014.00	7,014.00	7,014.00
<b>Largest (1)</b>	52,876.46	2,069.40	168.25
<b>Smallest (1)</b>	1,330.73	278.10	57.00
<b>Confidence Level (95.0%)</b>	340.42	11.00	0.72

PSX index was correlated to gold price fluctuations is a moderately positive correlation of 0.676219 magnitude. Moreover, PSX index and foreign exchange rate of USD to PKR are strongly and positively correlated with a magnitude of 0.813192. Similarly, a strong and positive correlation is also shown between gold price fluctuations and foreign exchange rate of USD to PKR with a magnitude of 0.810703.

**Table 0.2: Correlation Analysis**

	<i>PSX Index (KSE 100)</i>	<i>Gold Price (Per Oz in USD)</i>	<i>Forex Rate (USD to PKR)</i>
<b>PSX Index (KSE 100)</b>	1		
<b>Gold Price (Per Oz in USD)</b>	0.676219	1	
<b>Forex Rate (USD to PKR)</b>	0.813192	0.810703	1

In the *figure 4.1* below, the dynamic value overview is provided for the value of stock market in Pakistan. The data is collected from 02-Jan-2002 till 16-Mar-2021 and it is shown in figure as a plot with two years' time intervals. From 2002 to 2008 there is a growing pattern in the overall market with a sharp fall after 2008, that can be interpreted as a response to the global recession period. However, a fall in market is again observed right following the peak and market is considerably low by start of 2018, further declining by the end of 2019 due to COVID-19 impacts that began to improve by end of 2020 with another sharp fall in first half of 2020 but a steep recovery to a better overall value that was more than the value at closing of the year 2018.

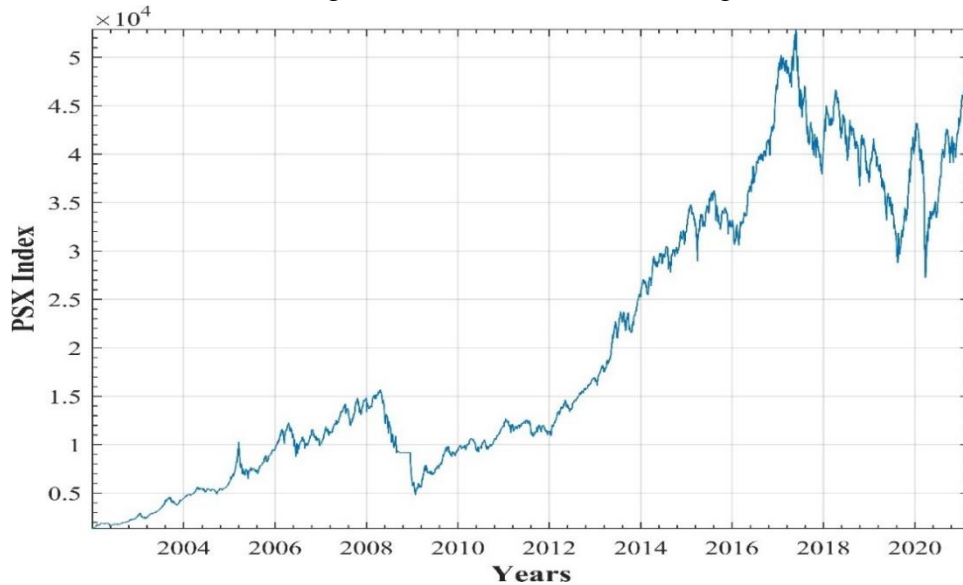


Figure 0.1: Overview of PSX Index

Figure 4.2 below maps prices of gold over past two decades to show a dynamic fluctuation in the gold prices. In the figure 4.2 given below, the researcher has mapped the fluctuations of gold prices from 02-Jan-2002 till 16-Mar-2021 and have been plotted over intervals of 2 years. There is a gradual increase in the price of gold over the first and second interval with minor fluctuations.

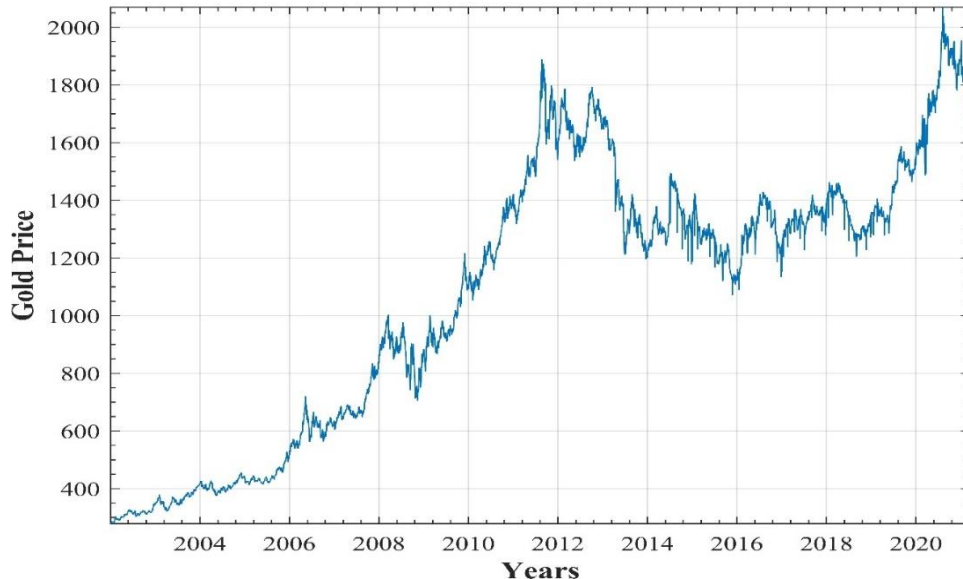


Figure 0.2: Overview of Daily Gold Prices

The figure 4.3 given below indicates that there is a no significant fluctuation in USD to PKR exchange rate during the first three interval i.e., economy was comparatively stable during the Musharraf’s era in



Pakistan as indicated by USD to PKR exchange rates. However, the local recession and change of government both impacted the USD rate to raise sharply in the start of 2008 and has continued ever since, without any prominent downfall. However, there was a dormant period between 2016 to 2018, depicting a stability of economy but the USD to PKR exchange rate witnessed rapid peaks during past 2 years due to economic impacts of COVID-19.

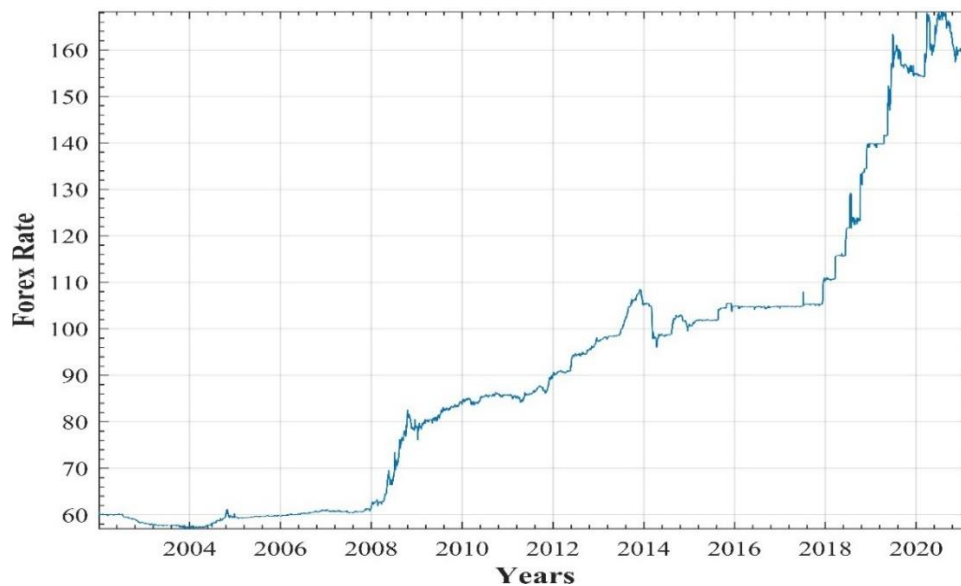
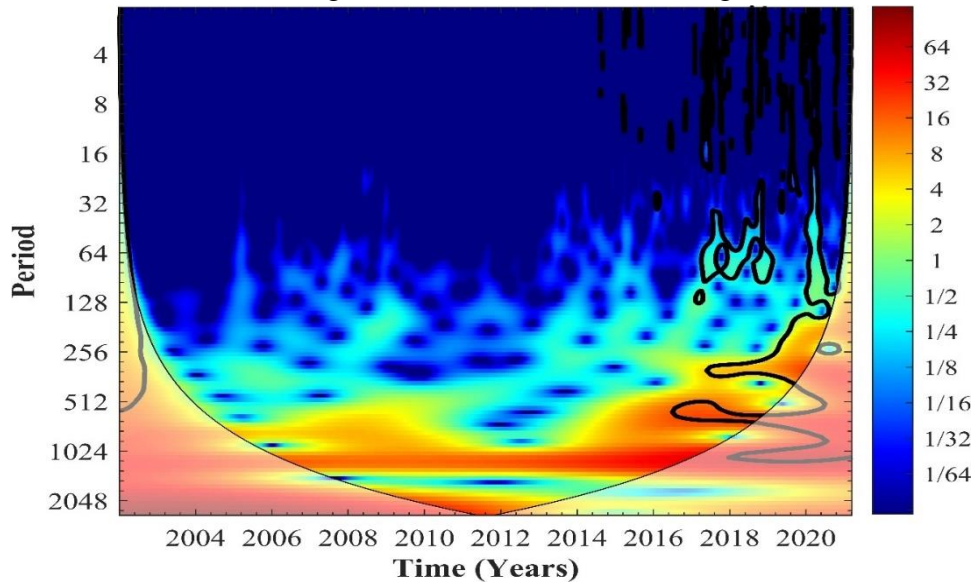
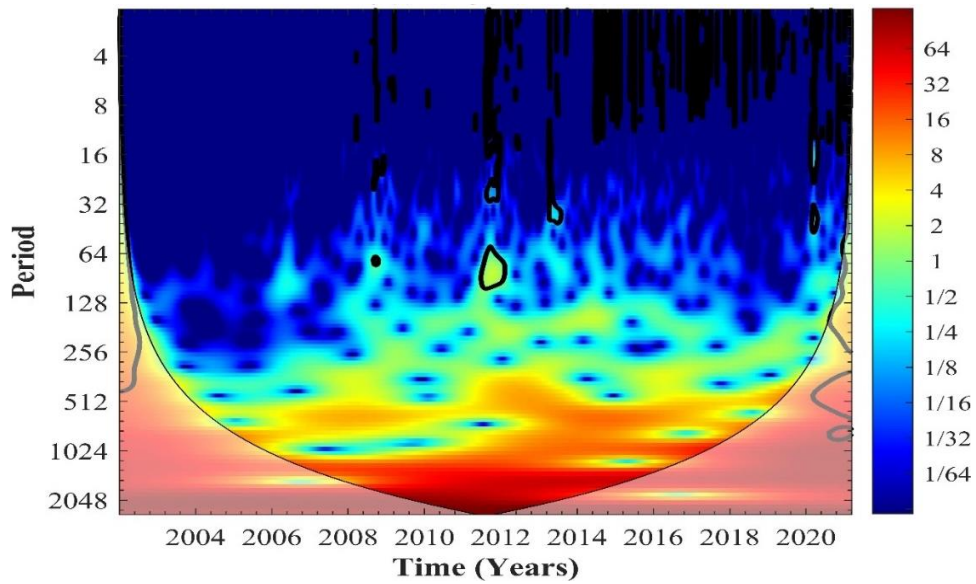


Figure 0.3: Overview of Foreign Exchange Rate of USD to PKR

A three-dimensional contour plot of wavelet power (WP) spectrum has been used in the present study. The *figures 4.4 to 4.6* are displaying the results of the continuous wavelet transform, where the *figure 4.4* corresponds to the changes in the values of the PSX index, *figure 4.5* corresponds to gold price, and *figure 4.6* corresponds to the changes in the foreign exchange rate or the forex rate over the study period. The horizontal axis of these graphs is representing the time component whereas the vertical axis is displaying the frequency component.



**Figure 0.4: Continuous Wavelet Transform of PSX Index**



**Figure 0.5: Continuous Wavelet Transform of Gold Price**

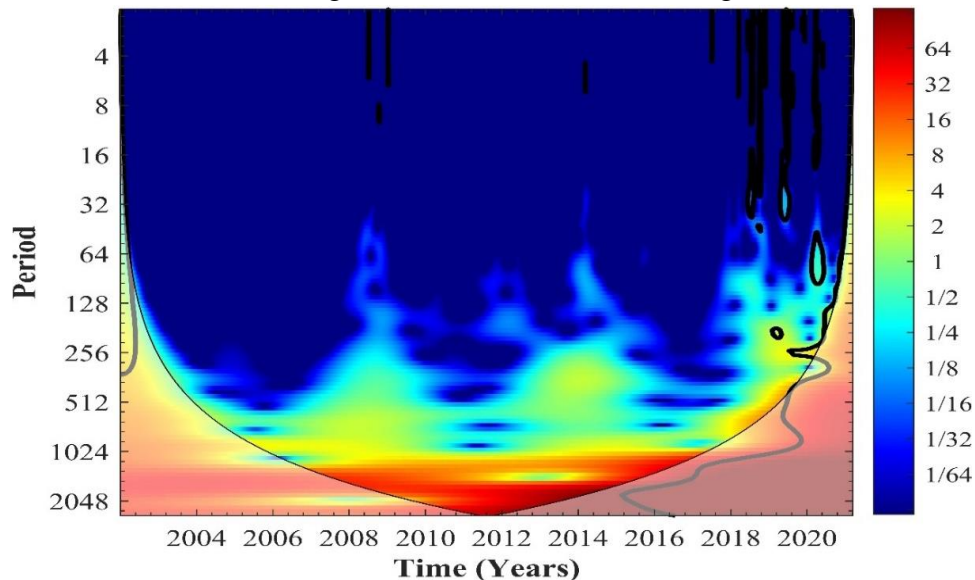


Figure 0.6: Continuous Wavelet Transform of Forex Rate

The *figure 4.4* shows that the stock returns of the PSX or the KSE-100 index is significant as it is exhibiting significant volatility at the 5 percent level. The CWT is defined as the absolute value that measures the variance of the economic series, and captures both the frequency and time components and this breakdown indicates that the volatility in the stock exchange is significant (Dewandaru, Masih et al. 2017).

The WP spectrum in the *figure 4.5* is displaying the variance in the evolution of the gold market in reference to the frequency time domain, where a larger variance has been indicated by the spectra of higher intensity. In the figure above, the intensity is represented on the third scale, showing color, and highlighting the variation in the intensity.

The *figure 4.6* shows that the foreign exchange rate of the American currency (USD) to Pakistani currency (PKR). The shape and occurrence of the black contour in this figure is different to that of the previous two graphs. The CWT, is however, depicting the variance of the foreign exchange rate, in terms of the frequency and time components and this breakdown indicates that the volatility in the foreign exchange rate is significant (Dewandaru, Masih et al. 2017). The region of COI or the unreliable region is localized in the period between 2009- 2017, showing that for this time the risk in the foreign exchange market was high and the currency was unstable. Most of the movement or the co-movement of the factor remained to be in low intensity. The black contour, based on the *Monte Carlo* simulations is represented on the far right corner of the figure and depicts the scarce significance level (Torrence and Compo 1998). These results of all three markets suggest that the fluctuations and the co-movement between the markets have been volatile at large and has had significant. This suggests that the global financial crises in recent times have had high impacts on the emerging markets of Asia. The existence of localized variation over the same period in the considered stock markets implies the existence of co-movement in some scale and over time the change in the economic situation of the country has resulted in elevated risk for markets.



The Cross Wavelet Transform (XWT) and wavelet coherency (WTC) have been shown in the *figures 4.7 to 4.10*. In *figure 4.7* a significant association is present between stock returns and gold price. There is a positive relationship present between the two factors where each is moving in almost similar direction, indicating that a cyclical effect is created which is line with the traditional approaches of the wavelet analysis.

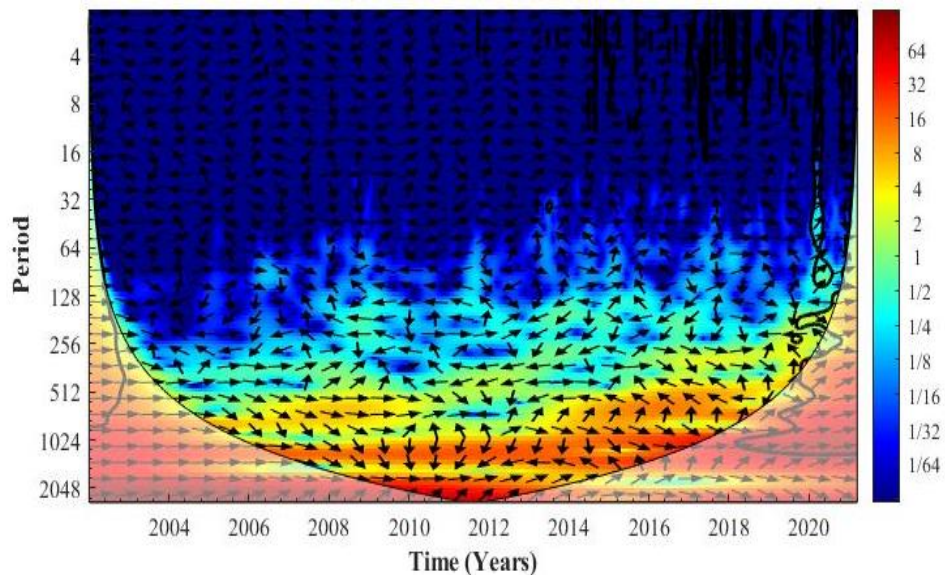


Figure 0.7: Cross Wavelet Transform of PSX Index – Gold Price

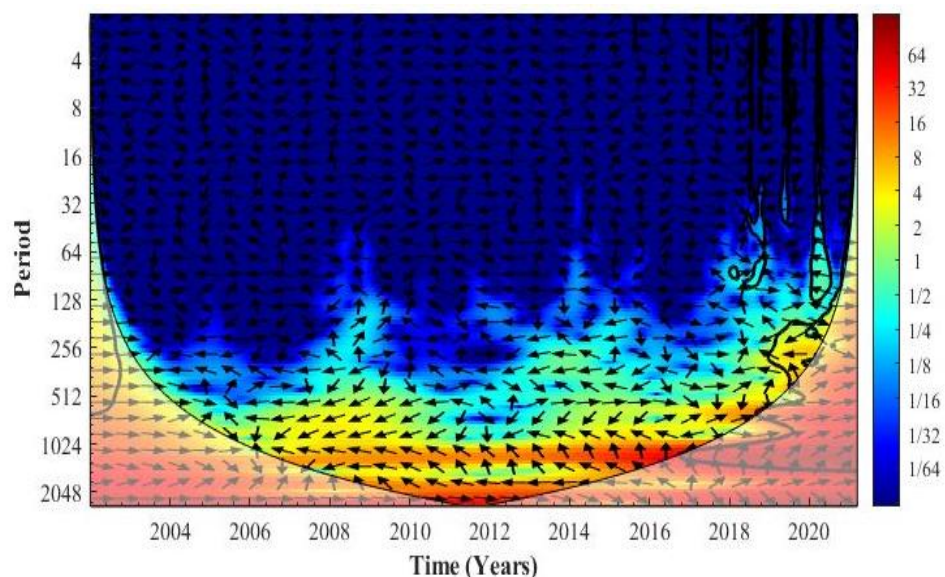


Figure 0.8: Cross Wavelet Transform of PSX Index – Forex Rate



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The association between the exchange rate and the stock returns can be seen in *figure 4.8*. In other words, appreciation in the exchange rate leads the stock returns where an appreciation in the rates of the currency will increase the profits and reflect positively on the conjoint stock returns. The *figure 4.8* also presents a XWT that is like the CWT power spectrum plots of *figures 4.4 to 4.6*. The arrows depicted in the figures are showing the phase information, which helps us to understand the interrelationship among the stock market and the foreign exchange market. The direction of the arrows indicates the phase difference present between the time series.

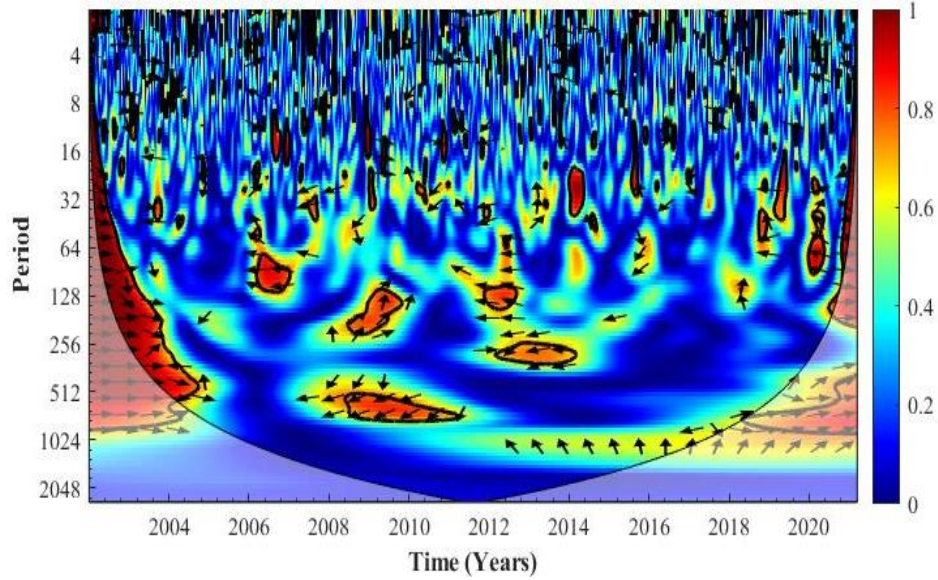
**Table 0.3: Phase Transformation between Two Series is Shown by Arrows, Aiming:**

<b>Right:</b>	→	<b>Variables are in-phase / positively correlated</b>
<b>Left:</b>	←	<b>Variables are anti-phase / negatively correlated</b>
<b>Up:</b>	↑	<b>First variable is leading by 90 degrees</b>
<b>Down:</b>	↓	<b>First variable is lagging by 90 degrees</b>
<b>Right and up:</b>	↗	<b>First variable is lagging and positively correlated</b>
<b>Right and down:</b>	↘	<b>First variable is leading and positively correlated</b>
<b>Left and up:</b>	↖	<b>First variable is leading and negatively correlated</b>
<b>Left and down:</b>	↙	<b>First variable is lagging and negatively correlated</b>

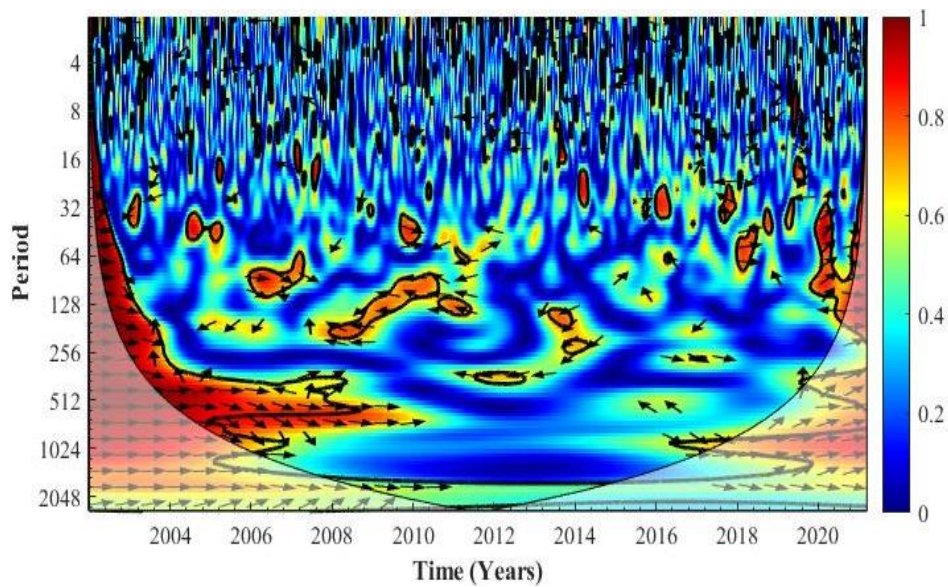
The *figure 4.9* indicates that the co-movement between stock market returns and foreign exchange rate for the period from 2002-2021 in Pakistan. The index pair can be seen to be statistically significant. The correlation between the exchange rate and stock market returns was also found to be significant and it indicated that interdependencies are present at all scales.

In accordance with the pattern shown in *figure 4.10*, the presence of co-movement between the Pakistani stock market returns and gold price is suggestive of a relationship. The vertical axis of the figure is the frequency component whereas the horizontal axis is signified as the time component. The thick black contour is representative of the significance regions at the 5 percent level and the curved lines indicate the cone of influence, showing the regions affected by the edge effect.





**Figure 0.9: Wavelet Coherence of PSX Index – Forex Rate**



**Figure 0.10: Wavelet Coherence of PSX Index – Gold Price**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Conclusion and Discussion**

The wavelet analysis has been used by numerous studies to study the co-movement and the volatility within the economic time series. In a study by Dahir, Mahat et al. (2018) wavelet analysis was used to study the dynamic association and linkage between the exchange rate and stock returns of the BRICS countries (Brazil, Russia, China, India, South Africa). The results of the study indicated that associations and linkages were present between the stock returns and exchange rates of the five countries. The associations were found to be positive in medium to long term and showed that exchange rates led the stock returns in Russia and Brazil. The studies by Delfin-Vidal and Romero-Meléndez (2016) and Bariviera, Basgall et al. (2017) studied the nature of the prices and the volatility across scales of investment and time in the values of bitcoin prices through the continuous wavelet transform analysis.

The results indicated the dominant investment periods or time scales during the period of turbulence and further provided evidence for the fractal market hypothesis. In another study by Lin, Yang et al. (2018) wavelet analysis was used to study the effect of time variation on bond and stock returns. The results of the study indicated that the long-term and short-term dependencies between bonds and stocks vary over time. Additionally, the relationship between bonds and stocks was found to be sensitive to market volatility.

Alshammari, Altarturi et al. (2019) also explore the impact of numerous factors like the exchange rate of currency, price of oil and gold in the Kuwaiti stock market by use of a wavelet-based analysis using data from 02 January 1996 to 28 September 2017. The technique that was applied by this study was the cross-wavelet coherency and partial cross-wavelet coherency to evaluate the nonlinear causality between the variables and to decompose the data over various frequencies of time so that investment horizons could be identified clearly. The results of this study established that there was a significant and positive relationship between Kuwaiti stock market and the currency exchange rate on all studied frequencies.

However, a weak impact was observed if oil price is removed from the analysis. As for gold price, a short-term negative relationship was established with stock market value during crisis periods. The study was conducted in perspective of the Pakistan commodity and stock market, where the co-movement between the gold price, foreign exchange rate and the PSX KSE-100 index was studied. The method of the wavelet analysis was applied and data from the last two decades was used as the sample. The results have indicated that there is presence of moderate positive co-movement between the gold price and PSX index. However, the associations measured through the cross-wavelet analysis wavelet coherence was found to be weak.

The overall evaluation of the historical performance, wavelet analysis and the correlation analysis showed that the prices of commodities are sensitive to the external environment. The study also found the association between the foreign exchange market and the PSX to be positive and strong. Changes in the foreign exchange rates were strongly found to influence the performance of the PSX. The findings from the study have indicated that the foreign currency market is sensitive to external changes and is more volatile in comparison to the gold market and extends greater influence over the Pakistani stock market.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The overall results indicated that the Pakistani economy is overall sensitive to external and internal environment. The fluctuations in one commodity like gold tend to cause an increase in the foreign exchange rates and the PSX as well. There is evidence of co-movement between the factors studied in this research and the spillover from one variable seeps into others as well.

The study has used data from authentic sources and provide results based on authentic data that has provides an exact information to Pakistan's authority, its business community, investors, and related decision makers to consider the last twenty years stock exchange index's performance of this developing nation under the fluctuation of its gold prices and foreign exchange rate. Gold and foreign currencies are the two most popular asset commodities used by investors in Pakistan.

The paper contributed to theory by presenting and summarizing literature on the impact of gold price and foreign exchange rates on PSX and vice versa and will serve as a beginning step for further research in the future on the co-movement impacts of these variables and markets on each other. Also, it will motivate them to derive a more constructive and authentic outcome. Moreover, the researcher implemented wavelet analysis method, as it was found to have several advantages over the linear setting of analysis, as it considers the timeline to be linear. So, the researcher implemented wavelet analysis, which is a significant contribution to theoretical and practical fronts of research. The related field scholars can utilize its authentic data in their future discussion, literature review and hypothesis development purposes.

## References

- Adekoya, O. B. and J. A. Oliyide (2020). "How COVID-19 drives connectedness among commodity and financial markets: Evidence from TVP-VAR and causality-in-quantiles techniques." *Resources Policy*: 101898.
- Afsal, E. and M. I. Haque (2016). "Market interactions in gold and stock markets: Evidences from Saudi Arabia." *International Journal of Economics and Financial Issues* **6**(3): 10.
- Aftab, M., S. Z. A. Shah and I. Ismail (2019). "Does Gold Act as a Hedge or a Safe Haven against Equity and Currency in Asia?" *Global Business Review* **20**(1): 105-118.
- Aguiar-Conraria, L. and M. J. Soares (2014). "The continuous wavelet transform: Moving beyond uni- and bivariate analysis." *Journal of Economic Surveys* **28**(2): 344-375.
- Akkoc, U. and I. Civcir (2019). "Dynamic linkages between strategic commodities and stock market in Turkey: Evidence from SVAR-DCC-GARCH model." *Resources Policy* **62**: 231-239.
- Alshammari, A. A., B. Altarturi, B. Saiti and L. Munassar (2019). "The impact of exchange rate, oil price and gold price on the Kuwaiti stock market: a wavelet analysis." *The European Journal of Comparative Economics*, **17**(1): 31-54.
- Bagh, T., T. Azad, S. Razaq, I. Liaqat and M. A. Khan (2017). "The impact of exchange rate volatility on stock index: Evidence from Pakistan stock exchange (PSX)." *International Journal of Academic Research in Accounting, Finance and Management Sciences* **7**(3): 70-86.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Bakhsh, R. P. and B. Khan (2019). "Interdependencies of Stock Index, Oil Price, Gold Price and Exchange Rate: A Case Study of Pakistan." *International Journal of Experiential Learning & Case Studies* **4**(2).

Balili, C. C., M. C. C. Sobrepena and P. C. Naval (2015). Classification of heart sounds using discrete and continuous wavelet transform and random forests. 2015 3rd IAPR Asian conference on pattern recognition (ACPR), IEEE.

Bariviera, A. F., M. J. Basgall, W. Hasperué and M. Naiouf (2017). "Some stylized facts of the Bitcoin market." *Physica A: Statistical Mechanics its Applications* **484**: 82-90.

Basher, S. A. and P. Sadorsky (2016). "Hedging emerging market stock prices with oil, gold, VIX, and bonds: A comparison between DCC, ADCC and GO-GARCH." *Energy Economics* **54**: 235-247.

Baur, D. G. and B. M. Lucey (2010). "Is gold a hedge or a safe haven? An analysis of stocks, bonds and gold." *Financial Review* **45**(2): 217-229.

Baur, D. G. and T. K. McDermott (2010). "Is gold a safe haven? International evidence." *Journal of Banking & Finance* **34**(8): 1886-1898.

Beckmann, J., T. Berger and R. Czudaj (2015). "Does gold act as a hedge or a safe haven for stocks? A smooth transition approach." *Economic Modelling* **48**: 16-24.

Bhuyan, A. K. and A. K. Dash (2018). "A dynamic causality analysis between gold price movements and stock market returns: Evidence from India." *Journal of Management Research and Analysis* **5**(2): 117-124.

Chaovalit, P., A. Gangopadhyay, G. Karabatis and Z. Chen (2011). "Discrete wavelet transform-based time series analysis and mining." *ACM Computing Surveys (CSUR)* **43**(2): 1-37.

Chen, J., Z. Li, J. Pan, G. Chen, Y. Zi, J. Yuan, B. Chen and Z. He (2016). "Wavelet transform based on inner product in fault diagnosis of rotating machinery: A review." *Mechanical systems and signal processing* **70**: 1-35.

Dahir, A. M., F. Mahat, N. H. Ab Razak and A. Bany-Ariffin (2018). "Revisiting the dynamic relationship between exchange rates and stock prices in BRICS countries: A wavelet analysis." *Borsa Istanbul Review* **18**(2): 101-113.

Daubechies, I. and S. Maes (2017). A nonlinear squeezing of the continuous wavelet transform based on auditory nerve models. *Wavelets in medicine and biology*, Routledge: 527-546.

Delfin-Vidal, R. and G. Romero-Meléndez (2016). "The fractal nature of bitcoin: evidence from wavelet power spectra." *Trends in mathematical economics*: 73-98.

Dewandaru, G., R. Masih and M. Masih (2017). "Regional spillovers across transitioning emerging and frontier equity markets: A multi-time scale wavelet analysis." *Economic Modelling* **65**: 30-40.

Dong, M., C.-P. Chang, Q. Gong and Y. Chu (2019). "Revisiting global economic activity and crude oil prices: A wavelet analysis." *Economic Modelling* **78**: 134-149.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Erdoğan, S., A. Gedikli and E. İ. Çevik (2020). "Volatility spillover effects between Islamic stock markets and exchange rates: Evidence from three emerging countries." *Borsa Istanbul Review* **20**(4): 322-333.

Hassan, M. K., S. Aliyu, B. Saiti and Z. A. Halim (2020). "A review of Islamic stock market, growth and real-estate finance literature." *International Journal of Emerging Markets*.

Jiang, Y., C. Jiang, H. Nie and B. Mo (2019). "The time-varying linkages between global oil market and China's commodity sectors: Evidence from DCC-GJR-GARCH analyses." *Energy* **166**: 577-586.

Karabulut, G., M. H. Bilgin and A. C. Doker (2020). "The relationship between commodity prices and world trade uncertainty." *Economic Analysis and Policy* **66**: 276-281.

Lin, F.-L., S.-Y. Yang, T. Marsh and Y.-F. Chen (2018). "Stock and bond return relations and stock market uncertainty: Evidence from wavelet analysis." *International Review of Economics* **55**: 285-294.

Liu, W., S. Cao and Y. Chen (2015). "Seismic time–frequency analysis via empirical wavelet transform." *IEEE Geoscience and Remote Sensing Letters* **13**(1): 28-32.

Lodha, S., E. Kumawat, C. J. I. c. t. e. t. Bapna and a. b. f. b. I. e. o. t. j. w. t. c. e. I. w. y. a. t. b. i. y. a. s. a. pursuits. (2018). "Impact of Demonetization Announcement on Indian Stock Market: An Event Study." 4.

Majid, R. (2018). "Advances in statistical forecasting methods: An overview." *Economic Affairs* **63**(4): 295479.

Mann, B. J. S. and S. J. I. J. o. M. R. Babbar (2017). "Stock Price Reaction Around New Product Announcements: An Event Study." **16**(3).

Mukhuti, S. and A. Bhunia (2013). "Is it true that Indian gold price influenced by Indian stock market reaction." *E3 Journal of Business Management and Economics* **4**(8): 181-186.

Najaf, R. and K. Najaf (2016). "An empirical study on the dynamic relationship between crude oil prices and Pakistan stock market." *J. Account Mark* **5**(194): 2.

Nanayakkara, K., A. Rajapakse and R. Wachal (2011). Fault location in extra long HVDC transmission lines using continuous wavelet transform. *International Conference on Power Systems Transients*.

Nawaz, M. S., M. Azam and M. Aslam (2020). "Probable daily return on investments in gold." *Gold Bulletin*: 1-8.

Prasad, A., S. Manna, A. Mahato and V. Singh (2014). "The generalized continuous wavelet transform associated with the fractional Fourier transform." *Journal of computational and applied mathematics* **259**: 660-671.

Qin, M., C.-W. Su, X.-Z. Qi and L.-N. Hao (2020). "Should gold be stored in chaotic eras?" *Economic Research-Ekonomska Istraživanja* **33**(1): 224-242.

Qureshi, S., I. U. Rehman and F. Qureshi (2018). "Does gold act as a safe haven against exchange rate fluctuations? The case of Pakistan rupee." *Journal of Policy Modeling* **40**(4): 685-708.

Raza, N., S. J. H. Shahzad, A. K. Tiwari and M. Shahbaz (2016). "Asymmetric impact of gold, oil prices and their volatilities on stock prices of emerging markets." *Resources Policy* **49**: 290-301.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Ribeiro, M. S. and R. A. Clark (2015). A multi-level representation of  $f_0$  using the continuous wavelet transform and the discrete cosine transform. 2015 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), IEEE.

Shabbir, M. S. and I. Muhammad (2019). "The dynamic impact of foreign portfolio investment on stock prices in Pakistan." *Transnational Corporations Review* **11**(2): 166-178.

Sohrabi, M. R., N. Kamali and M. Khakpour (2011). "Simultaneous spectrophotometric determination of metformin hydrochloride and glibenclamide in binary mixtures using combined discrete and continuous wavelet transforms." *Analytical Sciences* **27**(10): 1037-1037.

Sreekanth, D. and L. K. Veni (2014). "Causal relationship between gold price and nifty—an empirical study in Indian context." *Asian Journal of Research in Banking and Finance* **4**(5): 253-265.

Srinivasan, P. (2014). "Gold Price, Stock Price and Exchange rate Nexus: The Case of India." *Romanian Economic Journal* **17**(52).

Su, C.-W., M. Qin, R. Tao and X. Zhang (2020). "Is the status of gold threatened by Bitcoin?" *Economic Research-Ekonomska Istraživanja* **33**(1): 420-437.

Torrence, C. and G. P. Compo (1998). "A practical guide to wavelet analysis." *Bulletin of the American Meteorological society* **79**(1): 61-78.

Vanga, S. and S. Ganesh (2012). Comparison of Fourier Transform and Wavelet Packet Transform for quantification of power quality. 2012 International Conference on Advances in Power Conversion and Energy Technologies (APCET), IEEE.

Wang, C., W.-X. Ren, Z.-C. Wang and H.-P. Zhu (2013). "Instantaneous frequency identification of time-varying structures by continuous wavelet transform." *Engineering Structures* **52**: 17-25.

Wen, D., Y. Wang, C. Ma and Y. Zhang (2020). "Information transmission between gold and financial assets: Mean, volatility, or risk spillovers?" *Resources Policy* **69**: 101871.

Zhang, Z., Z. Jing, Z. Wang and D. Kuang (2012). "Comparison of Fourier transform, windowed Fourier transform, and wavelet transform methods for phase calculation at discontinuities in fringe projection profilometry." *Optics and Lasers in Engineering* **50**(8): 1152-1160.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**An Analysis of Socio-Demographic Factors of Conspicuous Buying of Luxury Automobiles in Pakistan: An Interpretive Structural Modeling**

Dr. Tehmina Fiaz Qazi

University of the Punjab, Lahore

Dr. Abdul Aziz Khan Niazi

University of Engineering and Technology, Kala Shah Kaku

Waleed Javeed

University of Engineering and Technology, Lahore

Dr. Talat Islam

University of the Punjab, Lahore

### **Abstract**

Conspicuous buying is a widespread topic that is occurring in today's world, and we don't have to go far to see examples of consumption behaviors motivated by the desire to show off one's financial wealth, to demonstrate exclusivity or affiliation to a certain group, and to earn prestige, respect, and status. However, in Pakistan and elsewhere in the globe, less attention was given to this conspicuous consumer want. In light of this study, the goal of this study was to see that which socio-demographic factor influences the conspicuous buying of luxury vehicles in Pakistan and how they are related to each other. It's cross-sectional descriptive research that took place in the field. The respondents' primary data was collected via a self-administered structured questionnaire. The technique used in this work is interpretative structural modeling (ISM) and Matrice d'Impacts Croisés Multiplication Appliquée á un Classement (MICMAC). The findings of the study will be beneficial to industry as well as the government of that country. In future, those factors will be looked at to see what the obstacles are or the huge obstacle that will have a negative impact on conspicuous buying, how they will be controlled in the future study and why this type of behavior is occurred can also be studied in future.

**Keywords:** Conspicuous Buying, Luxury Automobiles, Socio-Demographic Factors

### **Introduction**

People nowadays, frequently display their purchasing power and social status to others by purchasing luxurious and higher costly goods. Furthermore, literature reveals that consumers are more vulnerable to buying bright and luxury products not only for their natural and basic use but because of greater price and to show power to others (Goenka & Thomas, 2019; Sirong, 2016; Murphy, 2018; Kim, 2015). In this sense, conspicuous consumption means to purchase the expensive goods to show the wealth to others. Conspicuous buying of luxury goods is giving many opportunities to the countries. Conspicuous Buying has now become a widespread topic that is occurring in today's world. In terms of a developing country like Pakistan which has entangled in middle income trap. Conspicuousness is really a universal and global concept that requires the in-depth research or examination. Despite the fact that there are a number of research papers on conspicuous buying of automobiles in the literature, (for example: Grier et al., 2016; Perera, et al., 2013; Goenka & Thomas, 2019; Hammerl & Kradischnig, 2018; Di & Su, 2021; Otterbring *et al.*, 2021) no one has researched on this aspect, with a particular emphasis on the influence



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

of socio-demographic determinants in the context of luxury automobiles.

In the past literature there is no study has been done yet in the context of Pakistan's local market. As a result, the current research not only fills research gaps but also focuses on a timeless issue that is conspicuous buying of luxury automobiles. In the view of above discussion, this research investigates the influence of socio-demographic groups on conspicuous consumption of luxury automobiles in Pakistan. The automobile's case was selected due to many reasons: (i) Automobile sector play an important role in GDP and economy of any country. (ii) No one has studied this topic in depth and in context of Pakistan and it has proven in the light of past literature that in the field of conspicuous buying automobiles are closely related to man's excessive behavior (Boonyanus, 2017; Memushi, 2013; Dong & Koo, 2018; Di & Su, 2021).

The objectives of research work are described below:

To find out the effects of socio-demographic factors in conspicuous consumption of luxury automobiles.

To explore interrelationship among identified factors in conspicuous consumption.

To develop hierarchical model of identified factors in conspicuous consumption using ISM and MICMAC approach.

To classify factors on the basis of driving and driven power.

To discuss the model reality and formulate policy guidelines.

Following questions will be addressed in the research:

Which factors affects conspicuous buying of luxury automobiles?

How these factors are linked with each other?

Which factors are lined in independent, dependent, linkage and autonomous dimensions?

Which factor is key factor among all factors?

How can these factors be categorized from the view point of industrialists?

The list of factors have been extracted from literature review. Since, this study is based on 14 factors which is an ideal range for ISM (Sushil, 2017) hence, it is most suitable methodology. The remaining paper of the study is divided into literature review, solution methodology, results, discussion and conclusion.

## **Literature Review**

Jain & Sharma (2018) has declared that conspicuous consumption means that buying of luxury and costly goods and services to display the wealth and economic superiority to other people. Conspicuous consumption means people buy products not for their basic use; they buy those because those things give social status, dignity and respect (Leibenstein, 1989). Conspicuous buying is more common among Chinese consumers who connect with Chinese cultural values, according to the research. They suggested that Chinese customers buy luxury products to satisfy their materialistic, ostentatious, and prestige needs (Chen et al., 2005). Lansley (2016) asserts that there is a strong link between socio-demographic factors and automobile ownership. Demographic factors are described as: Age, Gender, Income, Social Class, Education, Religion (Kotler, 1980). Age, gender, religion, educational achievement, occupation, and monthly income are all socio-demographic groups that have a major impact on the ostentatious consumption of luxury automobiles (Karunanayake. K. 2020).

Karunanayake (2020) has studied that age, gender, income, education; religion significantly influences



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

the conspicuous consumption of automobiles. He also explained that in case of luxury cars men are more interested with respect to women, the level of academic achievement and excellence than negative relationships, employers are more visible than employees. Boonyanuson (2017) has studied that which factors have major effect in consumer decision making of luxury automobiles in Bangkok. Consumers fit a distinct demographic profile: they were male, older, wealthier, and more educated. The decision-making process was also influenced by factors such as age, income, and education level.

Age is important factor in socio-demographic factors. Middle-aged people with fewer financial commitments (such as small children or parents) and larger earnings than other age groups are more likely to invest in status based conspicuous consumption by buying luxury cars (Shukla, 2008). Memushi (2013) explained that young and middle-aged customers are more likely to participate in social and sexual signaling, conspicuous consumption should be greater among them. Male people are more likely in luxury car purchases in order to interact in conspicuous consumption, according to the findings of a study conducted by Loureiro et al. (2016), because they have a better understanding of luxury automobile brands and strong relationship to a given brand. Furthermore, according to Dunn & Searle (2010), women regard males who purchase and drive prestigious and costly vehicles to be more appealing.

Charles et al., (2009) studied that buying patterns on conspicuous consumer goods differ among races. They have studied that minorities (Black people) spend more money on conspicuous goods than white people to reduce the differences in incomes. Boonyanuson (2017) finds that when it comes to acquiring luxury vehicles like as Porsche, there is a considerable gap in levels of schooling between those who have a Bachelor's or a Master's Degree and those who do not. Jaikumar & Sharma (2020) explained that with the high prevalence of significant consumption in the emerging low-income economy like India, they argued that households in these economies use debt to pay off their tangible income use. Kurysheva & Vernikov (2021) have explained that by the growing trend in the price of a new car purchased by a car loan, which increased faster than usual small car prices, credit money raised car costs.

Loureiro & Ruediger (2016) have explained that the person who has BMW, Audi, Mercedes-Benz or Porsche is considered as wealthy man. In socio-demographic factors, income is also one of major determinant. Luxury vehicles may help them preserve their standing and receive respect from others, depending on their profession, the individuals they interact with on a daily basis, and the meetings they attend. As a result, owning a high-end vehicle may be the ideal method for them to display their status in the community (Karunanayake, 2020). People with high status or rank in occupation buy luxury things to show their status to others (Ramakrishnan et al., 2020). Married people affect consumption of luxury automobiles (Durand, 2017). Kurysheva & Vernikov (2021) indicated by the growing trend in the price of a new automobile financed by a car loan, which climbed faster than average small car prices, forth its pushed up car costs. The man with high social status and money buy more conspicuous and luxury goods to maintain his social status. Man buys more luxury items in cars, jewelry etc (Ryu, 2020). The list of factors on the basis of literature has been described below in Table # 1.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 1: List of Factors**

Sr#	Factor's Name	Reference
1	Age	(Karunanayake, 2020; Shukla, 2008; Estacio, 2019; Abdullah et al., 2021) Boonyanus, 2017; Gunaruwan, 2017; Memushi, 2017; Prieto & Caemmerer, 2013; Banergee et al., 2013;
2	Gender	(Boonyanus, 2017; Loureiro et al. (2016); Sharma, 2015; Dunn & Searle, 2010; Banergee, 2019; Karunanayake K. 2020; Estacio, 2019; Karunanayake, 2020)
3	Monthly Income	(Jaikumar & Sharma, 2020; Kuryшева and Vernikov, 2021; Karunanayake K. 2020; Di & Su, 2021; Loureiro et al. (2016); Michman & Mazze, 2006; Ryu, 2020; Abdullah et al., 2021)
4	Education	(Caplovitz, 1967; Karunanayake K. 2020; Karunanayake, 2020; Heffetz, 2011)
5	Occupation	(Jaikumar & Sharma, 2020; Kuryшева and Vernikov, 2021; Karunanayake K. 2020; Karunanayake, 2020, Di & Su, 2021; Loureiro et al. (2016); Michman & Mazze, 2006; Banergee, 2019)
6	Marital Status	(Ortega et al., 2018; Boonyanus, 2017; Hanzae & Rouhani, 2017; Lansley, 2016)
7	Race and Ethnicity	(Charles et al., (2009); Boonyanus, 2017, Banergee, 2019; Ryu, 2020)
8	Geographical Area	(Ballet & Collson, 2018; Costa, 2019)
9	Finance	Prieto & Caemmerer, 2013; Jai kumar & Sharma, 2020; Kuryшева & Vernikov, 2021; Di & Su, 2021)
10	Employment Status	(Banergee et al.,2013; O' Regan et al., (2019))
11	Perceived Life style	(Estachio, 2019; Jacob et al., 2020; Sunpakit et al., 2019; Janseen et al., (2017); Li & Kamblee, 2012)
12	Household Size	(Hanzaee & Rouhane, 2013; Estachio, 2019)
13	Monthly Family expense	(Hanzaee & Rouhane, 2013)
14	Monthly Family Saving	(Hanzaee & Rouhane, 2013)
15	Religion	(Karunanayake K. 2020; Banergee et al., 2013; Karunanayake, 2020; Latsuti & Khoirunurrofik, 2022; Wyk & Posel, 2019)
16	Social Status	(Ryu, 2020; Abdullah et al., (2021); Siepmann et al., (2021); Chen J. et al., (2022); Oh G.E.G, 2021)
17	Family Background	(Ryu, 2020; Siepmann et al., (2021); Chen J. et al., (2022); Oh G.E.G, 2021)

Common method for this type of endorsement is formal verification from the experts. Hence it is





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

necessary to identify the stakeholders and panel of experts for this study. Hence, panel of 16 people (heterogeneous) has been prepared in which researchers, people from the industry, customers, regulators had included. Hence, list of variables has presented to experts. From that 4 highlighted in table 1 could not get majority votes and hence eliminated from the research for further analysis.

### **Methodology**

The scholars are aware that only by using the proper technique will actual rewards from research be obtained. ISM was decided to begin this investigation after considering the available methodological options. ISM is applied to trained and motivated of this nature in a wide range of contexts (Sushil, 2017; Warfield, 1973). It is a clear, well-defined graphical representation of the model that makes use of reachability and transitive inferences via matrix transformation. ISM is recommended above other statistical techniques since most of them lack the ability to study a variety of interrelationships among variables of phenomena, eliminating the opportunity to fully understand complex situations (Chidambaranathan et al., 2009). As a result, ISM, and MICMAC are used in this study as research methodologies. It's true that the procedure of choosing the specialists is crucial since quality always wins out over quantity (Shen et al., 2016). According to the study, a diverse group should consist of 5 to 10 persons. A heterogeneous group is a collection of people from various professional and social backgrounds (Kloker et al., 2018). On the other hand, many studies has been conducted on the investigation on panel size of experts but still there is a room and no effective criteria found. According to the study, if the number of specialists on the panel exceeds 20 to 25 persons, the improvement in dependability becomes minimal. As a result, in order to improve productivity, researchers must take this remark into account (Clerk et al., 2018). A panel size of 16 experts was chosen since the study used a heterogeneous panel of experts. The panel was consulted three times: once to approve the factors, once to provide feedback on how the barriers were paired, and once to check for any logical, theoretical, conceptual, or directional errors. The researcher used one-on-one face-to-face in-depth interviews with specialists about their workplaces as a method of gathering data (Li & Yang, 2014). The model was developed over the series of three rounds: debate and testing, data initiation, and model testing. The majority rule is used by the experts to decide whether to adopt the factors, paired correlations, and model (Cai & Xia, 2018). The experts were chosen for the panel based on their membership in prominent auto-mobile organization, their positions in relevant professional fields, and relevant practical experience of at least 15 years. The study built a structural model using a traditional ISM approach applied to the data. ISM advanced gradually, according to Attri et al. (2013) and Warfield (1973).

### **Analysis, Results and Discussion**

#### **Interpretive Structural Modeling (ISM)**

SSIM (Structural Self-Interaction Matrix) is constructed from the aggregated data according to majority rule to select an alternative for each paired relation.



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 2: Structural Self-Interaction Matrix (SSIM)**

Factors	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Age		O	V	V	V	O	O	O	V	V	A	A	V	O
2 Gender			V	V	A	O	O	O	O	O	V	V	V	O
3 Monthly Income				V	A	O	A	A	O	V	V	V	V	A
4 Education					V	O	O	O	A	V	V	V	V	A
5 Occupation						V	O	O	O	A	V	V	V	A
6 Marital Status							A	A	A	O	A	V	V	O
7 Race and Ethnicity								O	O	V	O	V	V	O
8 Geographical Area									V	V	V	V	O	O
9 Finance Perceived										V	V	V	V	A
10 Life style Monthly											V	V	O	A
11 Family Expense Monthly												V	V	X
12 Family Savings													X	A
13 Social Status														A
14 Family Background														

According to Attri et al. (2013), the following were the principles of changing the SSIM into initial reachability matrix (which were indicated on the questionnaire when collecting data): enter: contextual connection = leads to V when a row leads to a column, A when a column leads to a row, and O when a row leads to a column, when row and column have no relationship, X when row and column lead to each other.

**Table 3: Initial Reachability Matrix**

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Driving
1	1	0	1	1	1	0	0	0	1	1	0	0	1	0	7
2	0	1	1	1	0	0	0	0	0	0	1	1	1	0	6
3	0	0	1	1	0	0	0	0	0	1	1	1	1	0	6
4	0	0	0	1	1	0	0	0	0	1	1	1	1	0	6
5	0	1	1	0	1	1	0	0	0	0	1	1	1	0	7
6	0	0	0	0	0	1	0	0	0	0	0	1	1	0	3
7	0	0	1	0	0	1	1	0	0	1	0	1	1	0	6
8	0	0	1	0	0	1	0	1	1	1	1	1	0	0	7
9	0	0	0	1	0	1	0	0	1	1	1	1	1	0	7
10	0	0	0	0	1	0	0	0	0	1	1	1	0	0	4
11	1	0	0	0	0	1	0	1	0	0	1	1	1	1	7
12	1	0	0	0	0	0	0	0	0	0	0	1	1	0	3
13	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3
14	0	0	1	1	1	1	0	0	1	1	1	1	1	1	10
Dependence	3	2	7	6	5	7	1	2	4	8	10	13	12	2	

Final reachability matrix has developed from the initial reachability matrix. It is also called as transitivity. All the 0 in the Table 3 has changed into 1\* according to transitive relations.

**Table 4: Fully transitive matrix**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Driving
1	1	1*	1	1	1	1*	0	0	1	1	1*	1*	1	0	11
2	0	1	1	1	1*	1*	0	1*	0	1*	1	1	1	1*	11
3	1*	0	1	1	1*	1*	0	1*	0	1	1	1	1	1*	11
4	1*	1*	1*	1	1	1*	0	1*	0	1	1	1	1	1*	12
5	1*	1	1	1*	1	1	0	1*	0	1*	1	1	1	1*	12
6	1*	0	0	0	0	1	0	0	0	0	1*	1	1	0	5
7	1*	0	1	1*	1*	1	1	0	0	1	1*	1	1	0	10
8	1*	0	1	1*	1*	1	0	1	1	1	1	1	1*	1*	12
9	1*	0	0	1	1*	1	0	1*	1	1	1	1	1	1*	11
10	1*	1*	1*	0	1	1*	0	1*	1*	1	1	1	1*	1*	12
11	1	0	1*	1*	1*	1	0	1	1*	1*	1	1	1	1	12
12	1	0	1*	1*	1*	0	0	0	1*	1*	1*	1	1	0	9
13	1*	0	0	0	0	1*	0	1*	0	0	1	1	1	1*	7
14	1*	1*	1	1	1	1	0	1*	1	1	1	1	1	1	13
Dependence	13	6	11	11	12	13	1	10	7	12	14	14	14	10	

Now, iteration has calculated. This process has been done due to identification of levels of each factor and their placement in their diagraph. In the level partitioning, reachability and antecedent sets of all factors have been calculated by final reachability matrix. For the development of Intersection sets, the



**7TH CBIBM  
2022**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

factor which effects or influence itself in reachability and antecedent sets than it lie in intersection at each level. So, according to this pattern all intersection sets for each factor has been developed.

**Table 5: Iteration I**

Factors	Reachability Set	Antecedent Set	Intersection Set	Level
1	1,2,3,4,5,6,9,10,11,12,13	1,3,4,5,6,7,8,9,10,11,12,13,14	1,3,4,5,6,9,10,11,12,13	
2	2,3,4,5,6,8,10,11,12,13,14	1,2,4,5,10,14	2,4,5,10,14	
3	1,3,4,5,6,8,10,11,12,13,14	1,2,3,4,5,7,8,10,11,12,14	1,3,4,5,8,10,11,12,14	
4	1,2,3,4,5,6,8,10,11,12,13,14	1,2,3,4,5,7,8,9,11,12,14	1,2,3,4,5,8,11,12,14	
5	1,2,3,4,5,6,8,10,11,12,13,14	1,2,3,4,5,7,8,9,10,11,12,14	1,2,3,4,5,8,10,11,12,14	
6	1,6,11,12,13	1,2,3,4,5,6,7,8,9,10,11,13,14	1,6,11,13	
7	1,3,4,5,6,7,10,11,12,13,	7	7	
8	1,3,4,5,6,8,9,10,11,12,13,14	2,3,4,5,8,9,10,11,13,14	3,4,5,8,9,10,11,13,14	
9	1,4,5,6,8,9,10,11,12,13,14	1,8,9,10,11,12,14	1,8,9,10,11,12,14	
10	1,2,3,5,6,8,9,10,11,12,13,14	1,2,3,4,5,7,8,9,10,11,12,14	1,2,3,5,8,9,10,11,12,14	
11	1,3,4,5,6,8,9,10,11,12,13,14	1,2,3,4,5,6,7,8,9,10,11,12,13,14	1,3,4,5,6,8,9,10,11,12,13,14	I
12	1,3,4,5,9,10,11,12,13	1,2,3,4,5,6,7,8,9,10,11,12,13,14	1,3,4,5,9,10,11,12,13	I
13	1,6,8,11,12,13,14	1,2,3,4,5,6,7,8,9,10,11,12,13,14	1,6,8,11,12,13,14	I
14	1,2,3,4,5,6,8,9,10,11,12,13,14	2,3,4,5,8,9,10,11,13,14	2,3,4,5,8,9,10,11,13,14	

In the second level of iteration, intersection set and reachability set of 1 (age) and 6 (marital status) are the same. These factors will be at the second level of ISM hierarchy diagram and should have removed from the table for further iterations.

**Table 6: Iteration II**

Factors	Reachability Set	Antecedent Set	Intersection Set	Level
1	1,2,3,4,5,6,9,10	1,3,4,5,6,7,8,9,10,14	1,3,4,5,6,9,10	II
2	2,3,4,5,6,8,10,14	1,2,4,5,10,14	2,4,5,10,14	
3	1,3,4,5,6,8,10,14	1,2,3,4,5,7,8,10,14	1,3,4,5,8,10,14	
4	1,2,3,4,5,6,8,10,14	1,2,3,4,5,7,8,9,14	1,2,3,4,5,8,14	
5	1,2,3,4,5,6,8,10,14	1,2,3,4,5,7,8,9,10,14	1,2,3,4,5,8,10,14	
6	1,6	1,2,3,4,5,6,7,8,9,10,14	1,6	II
7	1,3,4,5,6,7,10	7	7	
8	1,3,4,5,6,8,9,10,14	2,3,4,5,8,9,10,14	3,4,5,8,9,10,14	
9	1,4,5,6,8,9,10,14	1,8,9,10,14	1,8,9,10,14	



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

10	1,2,3,5,6,8,9,10,14	1,2,3,4,5,7,8,9,10,14	1,2,3,5,8,9,10,14
14	1,2,3,4,5,6,8,9,10,14	2,3,4,5,8,9,10,14	2,3,4,5,8,9,10,14

In the third level of iteration, intersection set and reachability set of 3 (monthly income), 5 (occupation), 8 (geographical area), 9 (finance) and 14 (family background) are lying in this level. These factors will be at the third level of ISM hierarchy diagram and should have removed from the table for further iterations.

**Table 7: Iteration III**

Factors	Reachability Set	Antecedent Set	Intersection Set	Level
2	2,3,4,5,8,10,14	2,4,5,10,14	2,4,5,10,14	
3	3,4,5,8,10,14	2,3,4,5,7,8,10,14	3,4,5,8,10,14	III
4	2,3,4,5,8,10,14	2,3,4,5,7,8,9,14	2,3,4,5,8,14	
5	2,3,4,5,8,10,14	2,3,4,5,7,8,9,10,14	2,3,4,5,8,10,14	III
7	3,4,5,7,10	7	7	
8	3,4,5,8,9,10,14	2,3,4,5,8,9,10,14	3,4,5,8,9,10,14	III
9	4,5,8,9,10,14	8,9,10,14	8,9,10,14	III
10	2,3,5,8,9,10,14	2,3,4,5,7,8,9,10,14	2,3,5,8,9,10,14	
14	2,3,4,5,8,9,10,14	2,3,4,5,8,9,10,14	2,3,4,5,8,9,10,14	III

In the fourth level of iteration, intersection set and reachability set of 2 (gender), 10 (perceived life style) are lying in this level.

**Table 8: Iteration IV**

Factors	Reachability Set	Antecedent Set	Intersection Set	Level
2	2,4,10	2,4,10	2,4,10	IV
4	2,4,10	2,4,7	2,4	
7	4,7,10	7	7	
10	2,10	2,4,7,10,	2,10	IV

In the fifth level of iteration, intersection set and reachability set of 4 (education) is same. This factor will be at this level.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 9: Iteration V**

Factors	Reachability Set	Antecedent Set	Intersection Set	Level
4	4	4,7	4	V
7	4,7	7	7	

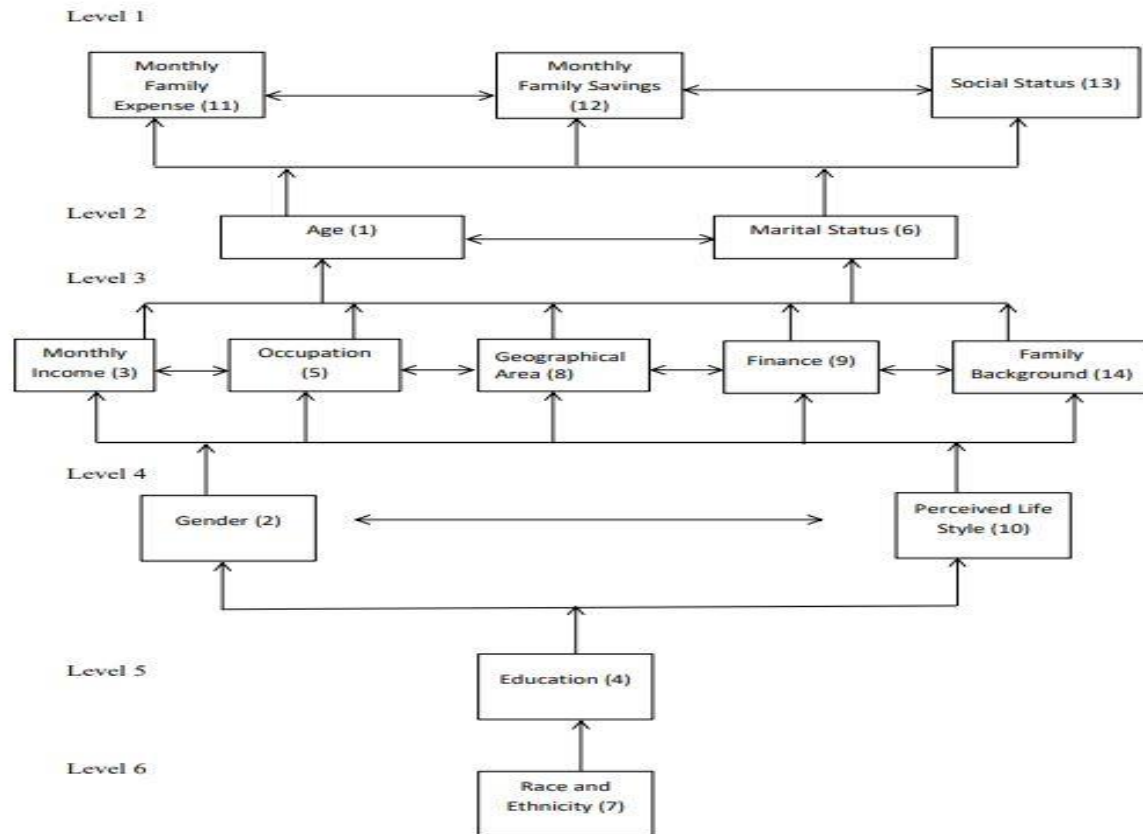
In the sixth level of iteration, intersection set and reachability set of 7 (race and ethnicity) is same.

**Table 10: Iteration VI**

Factors	Reachability Set	Antecedent Set	Intersection Set	Level
7	7	7	7	VI

### Building ISM Model

That's because the iterations have demonstrated that the factors to conspicuous buying may be categorized and organized into six underlined levels, there are six levels in all. Factors 11, 12 and 13 occupy the top level of the model, followed by factors 1 and 6 on the second level, 3,5,8,9 and 14 on the third level, 2 and 10 on the fourth level, 4 on fifth level and 7 on sixth level. Model has been drawn as Figure 1. According to ISM standards, level-to-level relationships have been represented, but the relationships between the variables at different levels have been denoted by two-way arrows derived from the reachability matrix.

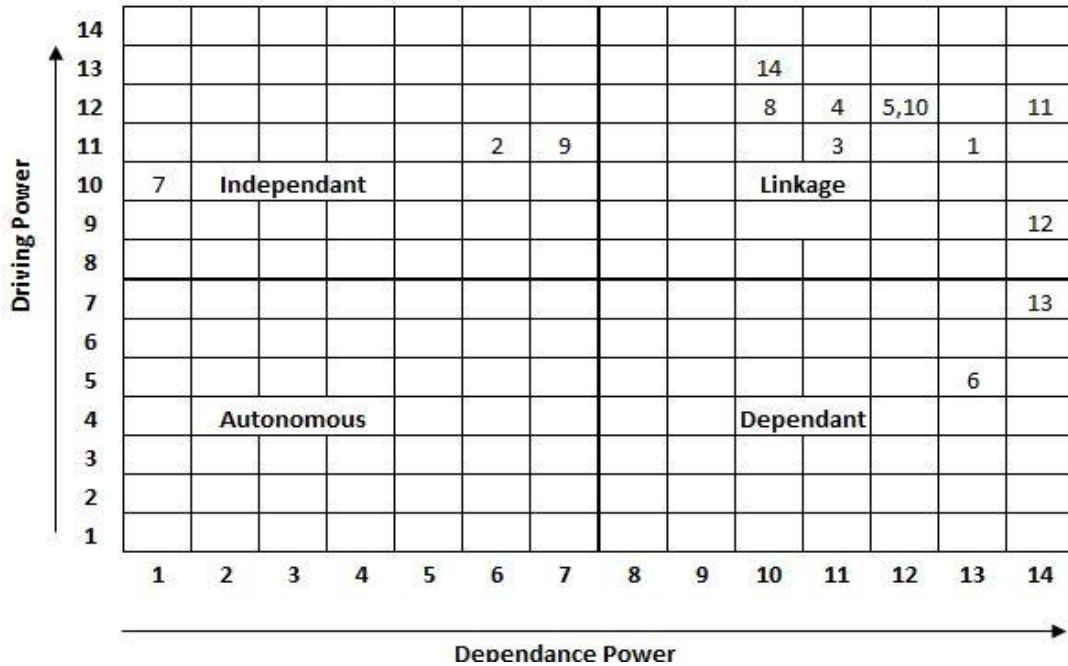


**Figure 1: ISM Model**

A panel of experts was shown the model to check for conceptual errors and make any necessary revisions. The model was completed after the experts reported a few minor changes that had been made. In this approach, the model has placed hierarchy and direction on complicated relationships between factors.

### MICMAC Analysis

In addition to using ISM, MICMAC was also used in the study. The variables are categorized using a structural analysis into four groups: independent, dependent, linking, and autonomous (Godet, 1986). The MICMAC is a driving-dependence diagram created from the final reachability matrix (Figure 2).



**Figure 2: MICMAC analysis**

The obstacles are categorized by MICMAC analysis into four clusters on a range of low-high (Figure 2). It contains four quadrants that range in intensity from low to high (dependence power on the x-axis and driving power on the y-axis). Out of 14 factors no one is lying in autonomous quadrant, two are lying in dependent quadrant, three factors are lying in independent quadrant and remaining nine are lying in linkage quadrant.

**Results**

Due to the significance of luxury cars, ISM and MICMAC analysis, two distinct structural techniques, have been used to explore the aspects relating to this phenomena. That provides understanding of complex interrelationships among factors of conspicuous buying of luxury automobiles. Summarized results are presented as Table 11.

Table 11: Summary of the Results

Result of Literature Review		Results of MICMAC Analysis				ISM Results	Comments
Sr. #	Factors	Driving	Dependence	Effectiveness	Cluster	Level	
1	Age	11	13	-2	Linkage	II	
2	Gender	11	6	5	Independent	IV	
3	Monthly Income	11	11	0	Linkage	III	
4	Education	12	11	1	Linkage	V	
5	Occupation	12	12	0	Linkage	III	
6	Marital Status	5	13	-8	Dependent	II	



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

7	Race and Ethnicity	10	1	9	Independent	VI	Key Factor
8	Geographical Area	12	10	2	Linkage	III	
9	Finance	11	7	4	Independent	III	
10	Perceived Life style	12	12	0	Linkage	IV	
11	Monthly Family Expense	12	14	-2	Linkage	I	
12	Monthly Family Savings	9	14	-5	Linkage	I	
13	Social Status	7	14	-7	Dependent	I	
14	Family Background	13	10	3	Linkage	III	

The result of ISM revealed the hierarchy of factors and relationship between factors. Race and ethnicity (7) is at the bottom of the diagraph, it has direct relation with education (4). Education (4) is directly affecting the gender (2) and perceived life style (10). Gender (2) and perceived life style (10) have direct relationship to each other. Gender (2) and perceived life style (10) affecting the monthly income (3), occupation (5), geo graphical area (8), finance (9) and family background (14), these factors have also direct relationship with each other's. Monthly income (3), occupation (5), geo graphical area (8), finance (9) and family back ground (14) are directly related with marital status (6) and age (1). Marital status (6) and age (1) are also linked with each other. Marital status (6) and age (1) are directly influencing the monthly family saving (12), monthly family expense (11) and social status (13) and these factors are at the top of the ISM diagraph. The purpose of MICMAC is to determine relevant factors and enhance ISM through more ISM result analysis. As a consequence, the results are displayed by cluster.

### **Autonomous Factors (Cluster I)**

Weak factors (whose dependence and driving power is low) of the study are normally found in this cluster. They don't have much impact on system. No factor is lying in this cluster.

### **Dependent Factors (Cluster II)**

Factors with low driving power but high dependence power are existing in this cluster. They depend on others therefore need extra care. In this study, marital status (6) and social status are (13) lying in this cluster.

### **Linkages Factor (Cluster III)**

Factors with high dependence power as well as high driving power found in this cluster. In this study, age (1), monthly income (3), education (4), occupation (5), geographical area (8), perceived life style (10), monthly family expense (11), monthly family saving (12) and family background (14) found in this cluster. They are unstable, flexible, and conflicted, and actions taken towards them may have an adverse impact on others as well as on themselves. These elements are included in the model, which suggests that regulators may have trouble understanding it.

### **Independent Factor (Cluster IV)**

Factors with weak dependent power but with high driving power fall in this cluster. These are important



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

elements that require handling with extreme caution. Therefore, it should be a top concern for practitioners to comprehend these elements. In this study gender (2), race and ethnicity (7) and finance (9) are lying in this cluster.

In a summary, race and ethnicity are important factors since they lie in the independent cluster according to MICMAC, have high drive, the lowest reliance, and are at the bottom of the ISM model. These two elements can be regarded as essential critical components since the results of both structural techniques agree, and experts have verified that they are consistent.

### **Discussion**

The purpose of the study is to analyze the factors that affect the effecting conspicuous buying of luxury automobiles in support of academia and industry. The hierarchical based model of the study is helpful for policy makers, researchers, Academia and industry. According to the existing literature, many studies has been done but there is a lack of Relationship between academia and industry are not clearly described. So, this study discusses the relationship of academia and industry with the support of conspicuous buying of luxury automobiles using ISM and MICMAC. The factors used in this study are: Age, Gender, Education, Occupation, Race and Ethnicity, Marital Status, Monthly Income, Geographical Area, family monthly saving, family monthly expense, family monthly background, social status, finance and perceived life style. All these factors have identified from literature and finalized by expert's knowledge.

### **Conclusion**

This study focuses on conspicuous buying of luxury automobiles and the creation of models for academia and industry utilizing ISM and MICMAC. The study's findings will aid in determining which areas of academics and industry will work on, as well as how they will strengthen their partnership. A list of critical factors (socio-demographic factors) has identified and examined that lead to the buying of conspicuous buying of luxury automobiles. A hierarchy of identified factors has developed by using ISM methodology. This model describes the hierarchy of and relationship between the identified factors in the context of conspicuous buying of luxury automobiles. Results of ISM showed that bottom of ISM model is occupied by the Race and Ethnicity (7). It leads to Education (4). It leads to gender (2) and perceived life style (10). Monthly income (3), occupation (5), geographical area (8) finance (9) and family back ground (14) have bi-lateral causal relationship with each other. These are the important factors of conspicuous buying of luxury automobiles. These factors then effect the age (1) and marital status (6). The top of the model is captured by the monthly family expense (11), monthly family savings (12) and social status (13). Factors at top level also have bi-lateral level relationship with each other hence partake important and vital importance. The study's research shows that race and ethnicity can lead to the emergence of additional elements that will help to enhance the interaction between academia and business industry through socio-demographic factors. Expert replies are taken into account, and it appears that on focusing these factors sales of luxury automobiles might be increased and hence economy of that country can also be progressed. As per MICMAC analysis, Group 1 has Low driving and dependency power factors are laid in this quadrant. In this study, no variable is placed in this quadrant, indicating that this aspect has no bearing on the study. It is called as autonomous factors. In





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Group 2, Strong dependent variables have been identified as dependency power and poor driving power. This type of factors lies in this group. Marital status and social status are lying here. These are called as dependent factors. In Group 3, these factors have a lot of driving power and a lot of dependence power. Both of these characteristics (high dependence power and strong driving power) are out of balance and are key contributors to system changes. Small changes in these variables will almost certainly have a significant impact on other variables. These are called as linkage factors. Nine factors are lying in this section: Age, Education, Occupation, Monthly Income, Geographical Area, Perceived life style, Monthly family expense, Monthly family saving, and family background. These factors help each other to control other factors of the study. In Group 4, the factors that have high driving power but low dependence power which means that they lead to other factors to lie in this group. In this study, gender, race and ethnicity and finance are lying in this cluster. These are called as independent factors. In other words, the most essential aspects are connections factors that may be highlighted. This research shows that if the key and connection variables are adequately handled, the dependent factors will almost surely be controlled. So, utilizing the proposed ISM model by this study, a plan or policy should be developed according to the race and ethnicity so that companies tackle this factor and make the policies according it and hence economy of the country may progress. This study helps the industry to make the policy to according to the above results and can increase the sales and revenues. This study not only beneficial to industry, it has same effect for the government as well. Government can also increase its revenues and hence economy of the country will also progress. By the help of this study, Industry will be strengthening and will increase the role of its contribution in the GDP of the country. Companies must make the policies according to these factors and must design the products according to it. Government also makes the policies according to it so that economy and the GDP of the country can increased. Government must take advises from the industry's experts so that Industry can be developed and it play an important role in the economy. In the form of vertical and horizontal analysis, interpretive relationships and hierarchical structure of elements establish a better understanding of their interaction with one another. In this study, 14 socio-demographic characteristics that influence conspicuous buying were found and used, however other factors that influence conspicuous buying may have been neglected. As a result, this is the study's primary flaw. The factors in this study are obtained from literature and based on the opinions of experts, and they may be expanded with the aid of more material and the addition of more experts to eliminate the element of prejudice.

The current study focuses on one element of ostentatious purchasing. As a result, multifunctional factors may be used to cover many additional elements of conspicuous buying in the future. This study looks at the elements that influence conspicuous buying, but in the future, those factors will be looked at to see what the obstacles are or the huge obstacle that will have a negative impact on conspicuous buying, and how they will be controlled in the future study. Why this type of behavior is occurred can also be studied in future. No element in this study is the autonomous group, which may have not occurred as a result of expert opinion biases. This might provide an easy way for future researchers to identify the scope of their research. This research relied solely on qualitative data and statistical procedures such as ISM and MICMAC analysis. Future researchers will be able to improve their understanding by using additional approaches such as TISM, Fuzzy MICMAC, Fuzzy interpretative structural modeling, TOPSIS, and Analytic Hierarchy Process (AHP). This study was conducted in a developing nation; however the ramifications of the findings will be applied to developed or under-developing countries



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## References

- Al-Abdallah, G., Khair, N., & Elmarakby, R. (2021). The Impact of Social Networking Sites on Luxury Vehicles Purchase Decision Process in Gulf Cooperation Council Countries. *Journal of International Consumer Marketing*, 33(5), 559-577.
- Attri, R., Dev, N., & Sharma, V. (2013). Interpretive structural modelling (ISM) approach: an overview. *Research Journal of Management Sciences*, 2319(2), 1171.
- Boonyanus, D. (2017, December). Factors influencing Purchasing Decision towards Luxury Vehicles: The Case Study of Porsche Cars in Bangkok, Thailand. *AU-GSB eJournal*, 10(2), 34-40.
- Banerjee, I., Roy, B., Sathian, B., Banerjee, I., Chakraborty, P. K., & Saha, A. (2013). Socio demographic profile and utilization pattern of antipsychotic drugs among schizophrenic inpatients: a cross sectional study from western region of Nepal. *BMC psychiatry*, 13(1), 1-10.
- Cai, Y. and Xia, C. (2018), "Interpretive structural analysis of interrelationships among the elements of characteristic agriculture development in Chinese rural poverty alleviation", *Sustainability*, Vol. 10 No. 3, p. 786.
- Charles, K., Hurst, E., & Roussanov, N. (2009, May). Conspicuous Consumption and Race. *The Quarterly Journal of Economics*, 124(2), 425 – 467.
- Estacio, E. V., Whittle, R., & Protheroe, J. (2019). The digital divide: examining socio-demographic factors associated with health literacy, access and use of internet to seek health information. *Journal of health psychology*, 24(12), 1668-1675.
- Goenka, S., & Thomas, M. (2019, January). The Malleable Morality of Conspicuous Consumption. *Journal of Personality and Social Psychology*, 75.
- Hanzaee, K. H., & Rouhani, F. R. (2013). Investigation of the effects of luxury brand perception and brand preference on purchase intention of luxury products. *African Journal of Business Management*, 7(18), 1778-1790.
- Jain, P., Kumar, P., & Chakrabarti, S. (2018, July). Type-sensitive knowledge base inference without explicit type supervision. *In Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (Volume 2: Short Papers)* (pp. 75-80).
- Karunanayake, C. (2020). Socio demographic determinants behind conspicuous consumption of luxury automobiles in Sri Lanka. *Economic Research*, 7(2), 87-11.
- Kim, S. (2015). The Influence of Three Fundamental Factors on Conspicuous Consumption. *Auckland University of Technology*, 680-690.
- Kuryшева, A., & Vernikov, A. (2021). Veblen was right: Conspicuous consumption and car loans in Russia. *Available at SSRN 3857764*.
- Lansley, G. (2016, May). Cars and socio-economics: understanding neighbourhood variations in car characteristics from administrative data. *Regional Studies, Regional Science*, 3(1), 264 - 285.
- Loureiro, S. C., & Ruediger, H. (2016, May). Luxury values as drivers for a active commitment: The case of luxury car tribes. (L. T. Wright, Ed.) *Cogent Business & Management*.
- Leibenstein, H. (1989, May). Bandwagon, Snob, and Veblen Effects in the Theory of Consumers' Demand. *Quarterly Journal of Economics*, 64(2), 183-207.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Mi, L., Yu, X., Yang, J., & Lu, J. (2018). Influence of conspicuous consumption motivation on high-carbon consumption behavior of Residents—An empirical case study of Jiangsu province, China. *Journal of Cleaner Production*, 191, 167-178.
- Murphy, J. (2018, December). Measuring Conspicuous Consumption. *Journal of Social Science for Policy Implications*, 6(2), 26-33.
- Memushi, A. (2013). Conspicuous consumption of luxury goods: literature review of theoretical and empirical evidences. *International Journal of Scientific & Engineering Research*, 4(12), 250-255.
- Otterbring, T., Tan, L. K., & Folwarczny, M. (2021). Populated Places and Conspicuous Consumption: High Population Density Predicts Materialism and Preferences for Luxury Goods.
- Prieto, M., & Caemmerer, B. (2013). An exploration of factors influencing car purchasing decisions. *International Journal of Retail & Distribution Management*.
- Ramakrishnan, A., Kalkuhl, M., Ahmad, S., & Creutzig, F. (2020). Keeping up with the Patels: Conspicuous consumption drives the adoption of cars and appliances in India. *Energy Research & Social Science*, 70, 101742.
- Ryu, S. (2020). Online luxury goods with price discount or onsite luxury goods with luxury services: Role of situation-specific thinking styles and socio-demographics. *Journal of Retailing and Consumer Services*, 57, 102253.
- Sahin, O., and Nasir, S. (2021). The effects of status consumption and conspicuous consumption on perceived symbolic status. *Journal of Marketing Theory and Practice*, 1- 18.
- Sushil, S. (2012), "Interpreting the interpretive structural model", *Global Journal of Flexible Systems Management*, Vol. 13 No. 2, pp. 87-106
- Sirong , Y. (2016). Luxury Consumption motivations of the younger generation in Wuhan China. Bachelor's Thesis, Turku University of Applied Sciences, Department of International Business, Turku.
- Sushil, S. (2012), "Interpreting the interpretive structural model", *Global Journal of Flexible Systems Management*, Vol. 13 No. 2, pp. 87-106.
- Shukla, P. (2008). Conspicuous consumption among middle age consumers: Psychological and brand antecedents. *Journal of Product and Brand Management*, 17(1), 25–36.
- Warfield J.W., Developing interconnected matrices in structural modelling, *IEEE Transactions on Systems Men and Cybernetics*, 4(1), 51-81 (1974).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **The Impact of Technology and Cultural Factors on Patient Behavior to Adopt E-Health System with Moderating Role of E-Health Literacy**

Dr. Samar Rahi

University of the Punjab, Lahore

Tooba Gill

University of the Punjab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore

Dr. Talat Islam

University of the Punjab, Lahore

Fiza Mubbsher

Kaizen High School Lahore

### **ABSTRACT**

E-health is a completely new technology in healthcare industry for patient care. Through internet doctors can quickly assess patients' conditions and provide consultation. The current study aims to investigate what factors enhance patient knowledge towards adoption e-health services and encourage them to adopt e-health system for their own convenience. This study empirically investigates patient adoption behavior towards e-health by using primary data. The objective is to assess how factors like perceived usefulness, subjective norm, computer anxiety and perceived behavioral control impact patient behavior to adopt e-health. This study will be based on a primary research design, in which quantitative data analysis techniques will be used by exploring the tools of descriptive statistics, correlation analysis, and regression analysis. The data will be collected from 200-250 respondents. The data will be collected through questionnaire using Google Forms. The survey questionnaires will be distributed to the citizens of Pakistan. Using the structural equation modeling method, hypothesized relationships will be analyzed. Results will show whether there is a strong or weak association between variables. This study is significant as its research framework is based on the technology acceptance model (TAM) and theory of planned behavior (TPB), with the moderating effect of e-health literacy.

**Keywords:** Technology Acceptance Model, Theory of planned behavior, Intention, Attitude, E-health literacy.

### **Introduction**

E-health is a new change in the healthcare sector. Through online connections, doctors may quickly assess patients' conditions and provide medication. It improves patient-doctor communication, which develop sincerity throughout all e-health systems. Additionally give patients' useful information.

The problem of the study is that patients are reluctant to use e-health system in Pakistan despite its convenience and ease of use. An e-health system might improve performance in Pakistan if it is implemented, but in Pakistan people are hesitating to use it and instead of this they choose visiting





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

hospitals. E-health can support society as a whole and the entire healthcare system. Healthcare professionals in the Kingdom of Bahrain have a vision that emphasizes community health service improvements through working with stakeholders to improve service accessibility and quality. (Zolait, Radhi, Alhowaishi, Sundram, & Aldoseri, 2019).

As its independent variables have five variables. The first is perceived usefulness, in which the usage of technology and an improvement in performance are directly related. E-health applications are becoming more popular as they create direct communication between a doctor and patient and raise awareness of diseases. The second is perceived ease of use, which indicates that the use of technology has no impact on performance. People use the e-health application because it is convenient and error-free, but they still prefer to see a doctor for treatment. The third category is subjective norms, which deal specifically with human behavior, whether it is done willingly or unwillingly. It is important to determine how people feel about using e-health applications rather than going to the doctor. People need a certain amount of time to move from manual to online and learn how to use technology. The fourth is perceived behavior controls which describes how a person perceives a task and make an effort to achieve it. Development in e-health application makes it easier and useful for every individual. People will respond positively and utilize the app if it is easy to use; however, if it has bugs and mistakes, usage will be discouraged, which will result in performance degradation. The fifth is computer anxiety, a negative relationship between the computer and the user. Operating online health applications might be challenging for several people because they lack the basic computer literacy. People were concerned that utilizing the computer might cause issues. This study involves two dependent variables. The first is an attitude toward adopting e-health that is a behavior through which people accept or reject e-health applications. Older people have a negative attitude towards the usage of online health applications because they have lack of skills to use the android mobile devices or laptops and they neither want to learn nor are likely to use them. The second factor is the intention to use e-health and how system reacts toward the technology, whether positively or negatively. A lot of people haven't had any experience or knowledge to use computer, that's why they show little interest in using e-health applications. People, who are experts in the use of mobile devices, have strong intentions to use e-health applications.

The moderating effect of e-health literacy involves the skills that directly relate to the usage of computers to fetch out health information. It is helpful to make decisions and diagnose diseases.

### **Literature Review**

The analysis of the literature review will primarily be used to develop a thorough understanding of the phenomena of public acceptance of e-health and to identify significant factors that may have an impact.

### **Perceived Usefulness**

Perceived usefulness denotes the employee's belief that by using specific technology will improve his or her performance. Basically, performance is directly linked with promotion, awards, bonuses, etc. (Pfeffer, 1982; Schein, Beckhard, & Driscoll, 1980; Vroom, 1964). Anyone can easily utilize the online system because it is so user-friendly. Technology allows us to learn about the issues that may affect navigation and its usage. The information provided on the online platform must be in a specific format





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and be accessible, accurate, and concise (Liu, Chen, Sun, Wible, & Kuo, 2010; Rivero, Kalinowski, & Conte, 2014). It is impressive how effective IT is for user acceptance in healthcare studies and across all online health service platforms (Holden & Karsh, 2010; Yarbrough & Smith, 2007).

**H1** : Perceived Usefulness is positively related with the Attitude toward the patient adoption of e-health system in Pakistan.

### **Perceived Ease Of Use**

Perceived ease of use indicates that the employee believes that using technology has no effect in his or her performance. Ease of use is determine that how easily any work can be done. And in what ways employees are using the app for the betterment of their performance?(Radner & Rothschild, 1975). E-health apps must be free from any kind of error or problem. These apps are essential to promoting e-health. Special IT experts should be assigned to do app development job to minimize their complexity and make them more user-friendly (Dünnebeil, Sunyaev, Blohm, Leimeister, & Krcmar, 2012). The technology used in the development of the app should be develop according to the user's mentality. Perceived Ease of Use is an important variable that can help users to decide whether accept or reject the online system for their health.

**H2** : Perceived Ease of use is positively related with attitude towards adopting e-health system in Pakistan.

### **Subjective Norms**

Subjective norms involve the specific perceived behavior in social interactions, either intentionally or unintentionally, that indulges in a behavior. When people work in groups, their behavior is the only factor used to assess how they treat one another. (Fishbein, 1980; O'Neal, 2007). In e-health perspectives, we encourage our audience to learn how to use online systems and determine their effects through subjective norms. It is mainly involved the usage and transformation of technology. It is hard to accept new technology because there are a lot of errors and problems faced by users.(Mayakul, Kiattisin, & Prasad, 2018). These are the factors that the app developer must be aware for the development of app. In every segment, the user's opinion is important; figure out what problems they are having and try to solve them. (Venkatesh & Davis, 2000)

**H3** : Subjective norms is positively related with attitude towards patient adoption of e-health system in Pakistan.

### **Perceived Behavioural Control**

Perceived behavioral control is the way a person behaves in a voluntary environment, whether the task provided is easy or difficult. It determines that what is the behavior of individuals in any environments and how it relates to their performance? How does a person act in various situations?(Trafimow, Sheeran, Conner, & Finlay, 2002). Perceived behavioral control is the way through which doctors precede healthcare activities in the hospital. However, according to the nature of the job, doctors behavior within healthcare centers regarding e-health is slightly favorable rather than moderate. Doctors perceived behavioral control is influenced by the belief that by using online application, they can easily become efficient and complete all their tasks on time. When anyone has a question about their health, they easily handle it. They assure their patients that their data is confidential; they develop technology



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

that is simple to use for their patients. And they try to maintain technology within the hospital (Ly, Kristjansson, Labonté, & Bourgeault, 2018)

**H4** : Perceived behavioral control is positively related with attitude towards patient adoption of e-health system in Pakistan.

### **Computer Anxiety**

Computer anxiety is the unhappy moments that occur when we interact with the computer. It could involve anxiety and other unfavorable feelings that affect not only us but also our immediate surroundings, which might include relationships or a work. It might have such components that a user experiences anxiety when using a computer. It could be the way a user reacts to a simple or difficult situation involving a computer. People become easily exhausted when they are asked to do work on computers that creates an unbearable work environment.(Saadé & Kira, 2009). Every person who has a negative experience while working on computer strengthens his aversion to computers. (Rosen & Maguire, 1990). Technology plays an important role between patient and doctor. But there are certain factors that cause problems, such as the fact that people don't have sufficient computer literacy, which makes it difficult for them to use e-health. This makes it essential to build applications that are simple to use rather than ones that require advanced computer skills to operate and collect health-related data. Users level of engagement with the application is declining, and its performance is also declining. because some areas have had limited access to the internet. (Moskalenko, Hadjistavropoulos, & Katapally, 2020).

**H5** : Computer anxiety is negatively related with attitude towards patients adoption of e-health system in Pakistan.

### **Attitude towards E-Health System**

Attitude involves the specific behavior that relates to the likes and dislikes of a person (Schwarz, 2007). The way we feel, think, and behave can all be influenced by our attitude, which can also affect our mental health. Essentially, it describes how someone responds to a certain activity. We cannot directly experience it because it is rooted in psychology.(Altmann, 2008) The attitude of users toward the adoption of e-health applications is extremely positive, and it correlates with their behavioral intention to use the applications (Venkatesh, Thong, & Xu, 2012) And intention plays an important role towards application adoption.(Gadabu, Sunguh, Arkorful, Uddin, & Lukman, 2019)

**H6** : Attitude towards using e-health is positively related with the intention towards patient adoption of e-health in Pakistan.

### **Intention to Adopt E-Health System**

The way a person reacts to a specific thing. If we take it from an e-health point of view, we conclude that the impact of technology on every system can be either positive or negative.(Saengchaia, Pattanapongthornb, & Jermstiparsertc, 2019). E-health services are adopted differently depending on intentions. When a service is adopted, as well as when healthcare professionals encourage their patients to use it, intention is important. (Han, Mustonen, Seppanen, & Kallio, 2004; Kijsanayotin, Pannarunothai, & Speedie, 2009). They conclude that doing this will make it simple for them to identify their issues and get in touch with doctors. It seems beneficial for doctors to encourage patients to use



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

internet applications. Identify the internal and external variables that affect a user's perception of his behavioral intention to utilize an e-health application. As that intention is develop through the creation of an online connection between the patient and doctor(Zhang et al., 2019). Intentions to consult with doctors through online health applications will give them accurate information to help them provide better medical treatment.

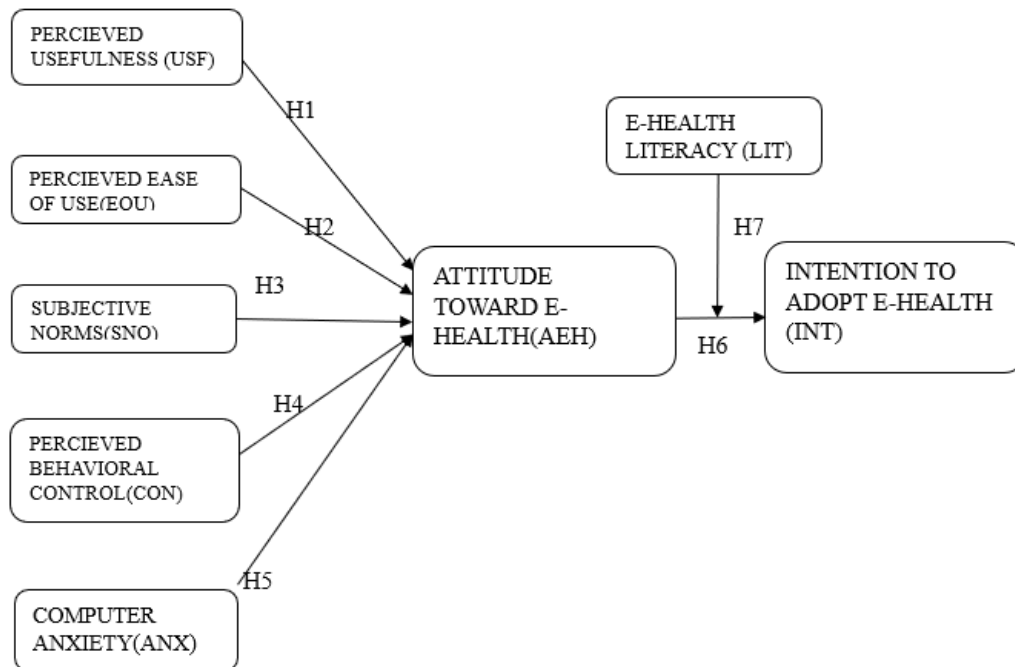
### **The Moderating Effect of E-Health Literacy**

This is first proposed to identify the specific skills that directly deal with health, traditional, computer, and science knowledge (Norman & Skinner, 2006b). E-health literacy is defined as the ability to look for, find, and acknowledge health information from a specific digital source and then use it to solve health problems (Norman & Skinner, 2006a). The improvement of health information provided to users is the main focus of e-health literacy. Those who are experiencing health issues can use this information to assist them make decisions about healthcare equipment, and it also gives them fundamental and technical understanding.(Werts & Hutton-Rogers, 2013). E-health literacy is special because it spreads health-related information over a vast area through the internet. Those people who haven't any knowledge related to the system and don't have access of internet, don't get information because they find the environment too complex(Hanik & Stellefson, 2011). To determine e-health literacy in detail, we come to know that it has six main factors like communication-based skills, health literacy like having knowledge of health before making any decision, having enough information to deal with every problem, media literacy, and the ability to use and solve all scientific problems and computer-based problems(Norman & Skinner, 2006b). Based on this, we hypothesis that e-health literacy plays a moderating role in the relationship between attitude and intention towards adopting an e-health system in Pakistan:

**H7** : E-health literacy has a significant moderating role in the relationship between attitude and intention towards patient adoption of e-health system in Pakistan.

**Research Model**

There is a diagram of proposed research model:



**Methodology**

This research is supported by previous studies. The research is based on positivist paradigm.(S Rahi, 2018). The study is based on deductive approach as the study uses an existing theory no inducing a new one (Samar Rahi, Khan, & Alghizzawi, 2021). This research is quantitative in nature. The study is primary in nature in which data is collected through questionnaire. The data is collected from 200-250 respondents. The information is collected through online Google forms. This study follows a positive paradigm. This study's population consists of Pakistanis from all professional backgrounds and students. For data analysis, Smart PLS software should be used. (Samar Rahi & Ghani, 2019a, 2019b). The questionnaire that is developed based on the 5-point Likert scale with response options ranging from 1 (strongly disagree) to 5 (strongly agree) will be used for evaluation.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Conclusion**

After study the literature, it is concluded that perceived ease of use, perceived usefulness, subjective norms and perceived behavioral control have positive relationship with attitude of patients towards e-health system. Computer anxiety negatively create attitude of patient toward e-health system. Positive attitude toward e-health system create intention among patients to adopt e-health services. E-health literacy moderates the relationship between attitude toward e-health and intention to adopt e-health services. As we all know, Pakistan is a developing country, and people don't have enough knowledge about e-health applications. In this research, I work on the adoption of e-health, and a literature review has found strong support for its adoption. It will change the way people perceive new technology. It will enhance knowledge of people that e-health is only for their benefit. Its practical implications in Pakistan increase the development of the electronic health sector. As a result, the paper will enhance the knowledge of individuals about e-health services.

### **References**

- Altmann, T. K. (2008). Attitude: a concept analysis. Paper presented at the Nursing forum.
- Dünnebeil, S., Sunyaev, A., Blohm, I., Leimeister, J. M., & Krcmar, H. (2012). Determinants of physicians' technology acceptance for e-health in ambulatory care. *International journal of medical informatics*, 81(11), 746-760.
- Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behaviour*.
- Gadabu, A., Sunguh, K., Arkorful, V. E., Uddin, M. M., & Lukman, S. (2019). Examining trust as a key determinant of ehealth adoption in Malawi.
- Han, S., Mustonen, P., Seppanen, M., & Kallio, M. (2004). Physicians' behavior intentions regarding the use of mobile technology: an exploratory study. *PACIS 2004 Proceedings*, 49.
- Hanik, B., & Stelfefon, M. (2011). E-Health literacy competencies among undergraduate health education students: a preliminary study. *International Electronic Journal of Health Education*, 14, 46-58.
- Holden, R. J., & Karsh, B.-T. (2010). The technology acceptance model: its past and its future in health care. *Journal of biomedical informatics*, 43(1), 159-172.
- Kijsanayotin, B., Pannarunothai, S., & Speedie, S. M. (2009). Factors influencing health information technology adoption in Thailand's community health centers: Applying the UTAUT model. *International journal of medical informatics*, 78(6), 404-416.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Liu, I.-F., Chen, M. C., Sun, Y. S., Wible, D., & Kuo, C.-H. (2010). Extending the TAM model to explore the factors that affect intention to use an online learning community. *Computers & education*, 54(2), 600-610.

Ly, B. A., Kristjansson, E., Labonté, R., & Bourgeault, I. L. (2018). Determinants of the intention of Senegal's physicians to use telemedicine in their professional activities. *Telemedicine and e-Health*, 24(11), 897-898.

Mayakul, T., Kiattisin, S., & Prasad, R. (2018). A sustainable medical tourism framework based on the enterprise architecture design: The case in Thailand. *Journal of Green Engineering*, 8(3), 359-388.

Moskalenko, M. Y., Hadjistavropoulos, H. D., & Katapally, T. R. (2020). Barriers to patient interest in internet-based cognitive behavioral therapy: Informing e-health policies through quantitative analysis. *Health Policy and Technology*, 9(2), 139-145.

Norman, C. D., & Skinner, H. A. (2006a). eHEALS: the eHealth literacy scale. *Journal of medical Internet research*, 8(4), e507.

Norman, C. D., & Skinner, H. A. (2006b). eHealth literacy: essential skills for consumer health in a networked world. *Journal of medical Internet research*, 8(2), e506.

O'Neal, P. W. (2007). *Motivation of health behavior*: Nova Publishers.

Pfeffer, J. (1982). *Organizations and organization theory*: Pitman Boston.

Radner, R., & Rothschild, M. (1975). On the allocation of effort. *Journal of economic theory*, 10(3), 358-376.

Rahi, S. (2018). *Research Design and Methods*: CreateSpace Independent Publishing Platform CA.

Rahi, S., & Ghani, M. A. (2019a). Integration of expectation confirmation theory and self-determination theory in internet banking continuance intention. *Journal of Science and Technology Policy Management*.

Rahi, S., & Ghani, M. A. (2019b). Investigating the role of UTAUT and e-service quality in internet banking adoption setting. *The TQM Journal*.

Rahi, S., Khan, M. M., & Alghizzawi, M. (2021). Factors influencing the adoption of telemedicine health services during COVID-19 pandemic crisis: an integrative research model. *Enterprise Information Systems*, 15(6), 769-793.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Rivero, L., Kalinowski, M., & Conte, T. (2014). Practical findings from applying innovative design usability evaluation technologies for mockups of web applications. Paper presented at the 2014 47th Hawaii International Conference on System Sciences.

Rosen, L. D., & Maguire, P. (1990). Myths and realities of computerphobia: A meta-analysis. *Anxiety research*, 3(3), 175-191.

Saadé, R. G., & Kira, D. (2009). Computer anxiety in e-learning: The effect of computer self-efficacy. *Journal of Information Technology Education: Research*, 8(1), 177-191.

Saengchaia, S., Pattanapongthornb, J., & Jernsittiparsertc, K. (2019). The role of subjective norms on the adoption of information and communication Technology in Health Care in Thailand. *International Journal of Innovation, Creativity and Change*, 8(8), 256-276.

Schein, E. H., Beckhard, R., & Driscoll, J. W. (1980). Teaching organizational psychology to middle managers: A process approach. *Exchange: The Organizational Behavior Teaching Journal*, 5(1), 19-26.

Schwarz, N. (2007). Attitude construction: Evaluation in context. *Social cognition*, 25(5), 638-656.

Trafimow, D., Sheeran, P., Conner, M., & Finlay, K. A. (2002). Evidence that perceived behavioural control is a multidimensional construct: Perceived control and perceived difficulty. *British journal of social psychology*, 41(1), 101-121.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), 186-204.

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly*, 157-178.

Vroom, V. H. (1964). *Work and motivation*.

Werts, N., & Hutton-Rogers, L. (2013). Barriers to achieving e-health literacy. *American Journal of Health Sciences (AJHS)*, 4(3), 115-120.

Yarbrough, A. K., & Smith, T. B. (2007). Technology acceptance among physicians: a new take on TAM. *Medical Care Research and Review*, 64(6), 650-672.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Zhang, G., Qu, H., Chen, G., Zhao, C., Zhang, F., Yang, H., . . . Ma, M. (2019). Giant discoveries of oil and gas fields in global deepwaters in the past 40 years and the prospect of exploration. *Journal of Natural Gas Geoscience*, 4(1), 1-28.

Zolait, A., Radhi, N., Alhowaishi, M. M., Sundram, V. P. K., & Aldoseri, L. M. (2019). Can Bahraini patients accept e-health systems? *International journal of health care quality assurance*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Impact Of Ethical Climate, Organization Justice and Organization Support on Workplace Deviant Behavior through Mediating Role of Employee Job Satisfaction**

Zulaikha Iqbal

University of the Punjab, Gujranwala Campus

Dr. Naveed Iqbal

University of the Punjab, Gujranwala Campus

**Abstract**

The aim of this study is to examine the impact of ethical climate (EC), organizational justice (OJ) and organization support (OS) on deviant workplace behavior (DWB) in public sector organization in Pakistan with mediating role of employee's jobs satisfaction (EJS). In this study basically, researcher checked the mediating effect on dependent or independent variables.

This paper opts quantitative cross-sectional design. This study has utilized deductive approach. The data was collected through proper questionnaire and used survey technique with purposive sampling. 250 questionnaires distributed between the employees of public sector organization and response rate was 92%. Researcher analysis descriptive analysis, factor analysis, correlation and reliability, and multiple regression analysis and structural equation model (SEQ) test for mediation analysis. Findings reveals that there is negative or highly significant relationship between EC and DWB. There is positive relationship between OS and DWB. No significance exists between variables. OJ also negatively connected with DWB. OJ has significant relationship with DWB. Employees job satisfaction mediates the relationship between EC, OS, OJ and DWB. The sample size is considerably small. The sample data was collected at one point of time only. Data was collected from Public Sector University of Pakistan only. Results cannot be generalized for all level of employees of an organization. Only employee job satisfaction was used as mediator but many other can be used as mediators that effect the deviant workplace behavior. In this research, researcher discover the mediating effect of EJS between the DWB or EC, OJ, OS. This is the first study who check the mediating effect of EJS between DB and EC, OJ, OS. The current study results help to further add knowledge for organization management to be more focused on employee deviant workplace behavior.

**Keywords:** Deviant workplace behavior, organizational justice, employees job satisfaction, organization justice,

**Introduction**

Deviant workplace behavior is an emerging issue in organizations. The purpose of this research paper is to investigate the mediating impact of employee's job satisfaction between workplace deviant behavior and ethical climate, organization justice, organization support. Deviant workplace behavior has not only negative effect in the organizations but it also has positive effect in the organizations but here we only discuss negative effect of deviant workplace behavior in the public sector organizations. Deviant workplace behavior impact on economy in US, this is because three employees out four involved in negative workplace behavior, from their employee one of them is reported as a stolen thing of others, moreover 95% companies reported about negative workplace behavior (Henle, Giacalone, & Jurkiewicz, 2005).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Another review calculated that 6 million employees were terrifying and bullying, round about 16 million workers were harassed and stressed and more than 2 million were intellectually attacked at work (Northwestern National Life Insurance Company, 1993). Now a days, Unethical and negative workplace behavior is an emerging issue in organizations.

Deviance means violation in organizations norms, values and regulations. According to (Harper, 1990) in organizations approximately 75% employees involve in different type of deviant behavior such as theft, fraud, lying, miss use of position. Few names have been referred for negative workplace behavior such as evil behavior (Robinson & O'Leary-Kelly, 1998) misconduct, immorality(Vardi & Wiener, 1996) nonconformity (Puffer, 1987), workplace deviance (Robinson & Greenberg, 1998), defective workplace behavior (Griffin, O'Leary-Kelly, & Collins, 1998). Organizations work on different type of deviant workplace behavior that create negative impact socially or psychologically (Hollinger & Clark,1982, 1983, Murphy, 1993; Robinson and Greenberg,1998).

This main theme of this study

To contribute to knowledge in the emerging literature on the subject matter of organizational behavior, especially negative workplace behavior.

To check the mediating effect of employees' job satisfaction between workplace deviance behavior and ethical climate in the public sector organization.

To check the mediating effect of employees' job satisfaction between workplace deviance behavior and, organization justice in the public sector organization.

To check the mediating effect of employees' job satisfaction between workplace deviance behavior and organization support in the public sector organization.

Organizations try to create good and healthy atmosphere, to promote teamwork for maximization of productivity, in this situation employer and employees voluntarily involved in deviance workplace behavior. However, it creates a difficult situation for organization to achieve their desired goals (Liu & Ding, 2012). When employees face different type of deviant workplace behavior in organizations, they feel stressed and turnover ratio increase, employees leave organization in high rate (Henle, 2005). This is the main reason organizations discourage the deviant workplace behavior. The organizations must high light those employees, that create negative or deviant behavior in the organizations.

### **Literature Review &Theoretical Framework:**

Deviant workplace behavior is describes by(Litzky, Eddleston, & Kidder, 2006) as abnormal or offensive behavior between employees or employers. The persons who introduced the concept of deviant workplace behavior in organizations are (Robinson & Bennett, 1995). They developed major two concept of deviant workplace behavior such as organizational wise and interpersonal wise. The first type organizational deviance refers to deviant behavior targeting the organization such as untruthful, thief, corruption, cheating, violence in organization. The second type, interpersonal deviance refers to deviant behavior includes gossips about coworkers' criticism and blame to them. These two types are also sub divided into four categories. In which production deviance (depart, disproportionate, creeping, waste of material), property deviance (destruction, accepting kickbacks, misleading of work), political deviance (one-sidedness, blaming, gossips about coworker) and personal aggression (sexual harassment, defamation, stealing from co-worker include (RJ, 1995).

Mostly employees involved in deviance workplace behavior when they feel their needs and wants





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

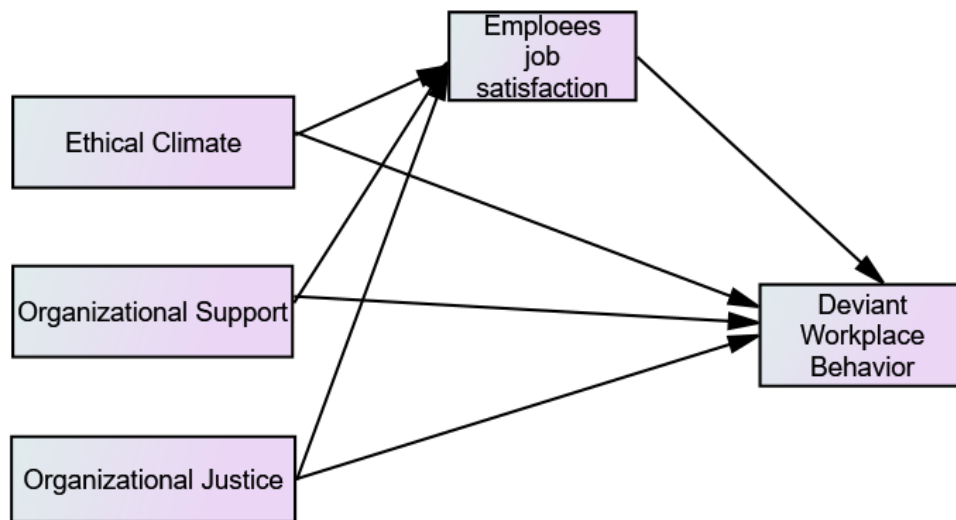
ignored in organization. They think organization not take care of their work being that's why their hardworking is useless itself hence, they feel to behave in defiance as they feel that they have been mistreated by organization(Rahman, 2022).

### **Social Exchange Theory**

The first time Social Exchange Theory (SET) introduced by (Homans, 1958) in which includes emotions in a systematic way. Homans work on different group of peoples, which they are involved in different activities that create interaction between individuals, and what emotions develop among that interact frequently. SET describes the social exchange behavior between human to build cost-benefit analysis (Chernyak-Hai & Tziner, 2014) The cost-benefits aim minimize cost and maximize profit (Ahmad & Omar, 2014). They specified the relationship will be adjourn, when danger overcome reward. If employs rewarded in the past, they have been repeated their attitudes or behaviors. On the other side, when they feel less EC, OJ or OS, employs dissatisfied and build negative behavior in organization and also leads deviant behavior. The reason is that, organization not value their qualities r skills. In comparison, when employees feel EC, OS or OJ in organization they perform their task in good manners and try to do something best for the organization(Rahman, 2022) .

A lot of studies arbitrate the relationship among the organizational factors (ethical climate, organization support or organization justice) that impact on the deviant workplace behavior and number of studies used SET as a basic theory. This theory advises that particular factor like EC, OJ, OS leads DWB in organizations. This theory resolves the problems between employees or employer direct or indirect relations.

**Research Framework**



The above model is designed that is used to understand the relationship between deviant behavior and ethical climate, organization support, organization justice and employee’s job satisfaction. In this model deviant workplace behavior act as dependent variable, ethical climate, organization justice or organization support as independent variables and employee’s job satisfaction as a mediator. Employee’s job satisfaction performed mediating role between DWB and EC, OJ, OS.

**Ethical climate**

According to (Wang & Hsieh, 2013) ethical climate demonstrate that climate in which employees are conscious about their moral duty and their beliefs and principles related to the EC and employees shall be aware how they resolve their issues related organization work.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Organization support**

Organization support defined as employees concern how organization evaluate their performance, they develop general views concerning the degree to which supervisors value to the employees care about their well-being(Kottke & Sharafinski, 1988).

### **Organization justice**

Organization justice is defined as employees judges the organization attitude, how organizations treat their employees. The concept of OJ introduced by Greenberg in (1987). This concept refers to the employees perceive organization's behavior, attitude and decisions how they influence on the employee's behavior or attitude.

### **Employees job satisfaction**

JS or EJS has been defined in many ways. JS means extent to which employee feels self-motivated, content and satisfied with his job. It happens when employees feel that they having job stability, career growth and comfortable work life balance.

### **Relationship between EC and DWB**

Organizational formal or informal course of action, operations and polices defined as perception of organizational climate(Reichers & Schneider, 1990). EC is important for organizations healthy atmosphere, to do work in better way.(Victor & Cullen, 1988) defined five EC measurements which are include instruments, rules, caring, independence, and law and code. In organizations top-level management are very important that create ethical or unethical climate in the organizations through their behavior, in different ways they enforce lower-level employees to do particular task, this dilemma create deviance workplace behavior in organizations(Sims, 1992).

H<sub>1</sub> There is negative relationship between ethical climate and deviant workplace behavior.

### **Relationship between OS and DWB**

OS is interconnected to the DWB (Abdul Rahman, 2008).Supervisor directly or indirectly evaluate their subordinate's performance because they performed their responsibilities between head and employees as an agent and rate their work (Eisenberger, Huntington, Hutchison, & Sowa, 1986). For instance, how organization behave if employees make mistakes, future illness, outstanding performance, organization needs to pay compensations in the reward of their work and make the job more interesting and meaningful for them(Eisenberger et al., 1986).Organizations should encourage the employees in different areas, when organization supports employees it build creativity in their minds they think that organization support, encourage, reward and recognizes employees who exhibit creativity(Zhou & George, 2001). When OS exists in the organizations, employees will avoid insolent behavior because organization work on their development, in that atmosphere organizations achieve their goals easily (Malik & Lanka, 2018).(Mishra & Pandey, 2014; Ojo & Tamunoipiriala, 2019) recommended that insufficiency of organizational support become a reason of DWB.

H<sub>2</sub> There is negative relationship between organization support and deviant workplace behavior.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Relationship between OJ and DWB**

OJ is defined as employees judge the organization attitude, how organizations treat their employees. The concept of organization justices introduced by Greenberg in (1987). This concept refers to the employees perceive organization's behavior, attitude and decisions how they influence on the employee's behavior or attitude.

OJ is distributing into three categories such as distributive justice, procedural justice, and interactional justice. Distributive justice refers to the perceived fairness of an allocation or more broadly, to how people judge what they receive. (J. S. Adams, 1965) who used the SET to assess the fairness. (Thibaut & Walker, 1975) introduced the concept of procedural justices. It focuses on the scrapper reactions to the legitimate procedure.(Leventhal, 1980) broad the concept of procedural justice. The third and last category is interactional justices which is introduced by sociologist R. Schermerhorn interactional justices refers to degree to which people affected by decision are treated by dignity and respect. It focuses on interconnected treatment which people received when procedures or polices are implemented(Bies, 1986).

According to (Greenberg, 1990b) for the betterment of organizations, OJ is very necessary because if employees feel they treated fair they will properly focus on their work ,it reduces the defiant behavior from the organizations.

H<sub>3</sub> There is negative relationship between organization justice and workplace deviant behavior.

### **Employees job Satisfaction and deviant workplace behavior or other factors**

Employees job satisfactions mean how much employees satisfy with their job which they are performed in any organization. There are three relationships that effect the EJS which are (1) the employee-coworker relationship, (2) the employee-supervisor relationship, and (3) the employee-organization relationship(Tang, Siu, & Cheung, 2014). The relationship between employees and coworker is important source of job satisfaction(Sageer, Rafat, & Agarwal, 2012).according to (Edgar & Geare, 2005) (Fila, Paik, Griffeth, & Allen, 2014)Employee and supervisor relationship also influence job satisfaction. Such as extent to which supervisor representative to employees greatly affected to assessment of their job. And last the relationship between employees and organizations as employee identification with and commitment to the organizational strategy and company goals(G. A. Adams, King, & King, 1996; Allen, Shore, & Griffeth, 2003). If employees satisfy with their job, they will perform their task in efficient way in healthy atmosphere. (Greenberg, 1990a) also highlighted many reasons of negative behavior, the first one is underpaying their contribution, that create different type of revenge between the employees and organization. For this purpose, Social Exchange Theory used to imply for better understand the reason of employee **angling** to deviant behavior. Consequently, Employees job satisfaction execute as a mediator between deviant workplace and other factor such as ethical climate, organization justice or organization support.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Interactive hypotheses**

H<sub>4</sub> Employees Job Satisfaction mediate the relationship between Ethical Climate and DWB.

H<sub>5</sub> Employees job Satisfaction mediate the relationship between Organizational Support and DWB.

H<sub>6</sub> Employees Job Satisfaction mediate the relationship between Organizational Justices and DWB.

### **Methodology**

#### **Research design**

Research process is known as onion which consists of multiple layers in which first layer is research philosophy there are three main types such as positivism, interpretivism and pragmatism. In this paper, Positivism approach is used because our research is based on facts, we need objective data not Any type of opinion regarding these variables as it is hypothesis testing. this research paper utilized deductive approach. This paper is basically quantitative paper. And data was collected practically through questionnaire from public sector in Pakistan. Purposive sampling used as a sampling technique.

#### **Population/sampling**

Population of public sector in Pakistan is 1882K. The recently data was collected from the public sector University of Pakistan. As stated, that HEC recognized 132 institutes in which 73 public sector or 59 private sector universities includes. Researcher selected one of public sector university from the Punjab and collected data from working employees. Researcher selected 250 sample size from the whole population. The sample size was 250. And response rate was 92%. 66% was female involved and 32% male. 250 questionnaires distributed in public sector working organization, 232 questionnaires collected from employees. 155 males involved and 77 females involved in this survey. Researcher used purposive sampling; this sampling refers that data is collected employees for this purpose of study.

#### **Measures**

In questionnaire 5-point Likert scale was used to collect data, 5 options refer to agree of respondent from particular statement (1) strongly disagree (2) disagree (3) neutral (4) agree (5) strongly agree. 11 items used for Deviance Workplace Behavior made by (Tuna, Ghazzawi, Yesiltas, Tuna, & Arslan, 2016), 5 items used for organizational support proposed by (Lee & Chui, 2019), five measurements used to measure the organizational justice by Ambrose and Schinke (2009), five items used for ethical climate developed by Buchan (2009), six items used for employee's job satisfaction proposed by (Tsui, Egan, & O'Reilly III, 1992)

#### **Analysis technique**

The data was measured through SPSS (STATISTICAL PACKAGES SOCIAL SCIENCE). Furthermore, descriptive statistics, frequency distribution, normality test done using SPSS. Reliability of instrument is done by using Cronbach alpha value through SPSS. (SEM) structural equational modelling analysis perform for mediation testing by using AMOS.





# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Results & Discussions

**Table1: Demographic profile of respondent**

Variables	Description	Frequencies	Percentages
Gender	Male	155	67%
	Female	77	33%
Age	20 - 30 years old	15	6.5%
	31 - 40 years old	124	53.4%
	41- 50years old	57	24.6%
	50 years old and above	36	15.5%
Academic Qualification	SPM	48	20.7%
	Matriculation	32	13.8%
	Bachelor's degree	45	19.8%
	Master's Degree	81	34.9%
	PhD	25	10.8%
Material status	Single	125	54.9%
	Married	98	42.2%
	Divorced	5	2.2%
	Widowed	4	1.7%
Race	Muslims	220	94.8%
	Non-Muslims	10	4.3%
	chines	2	0.8%
Experience	Less than a year	37	15.9%
	1-2 years	91	39.2%
	3-4 years	47	20.3%
	5-6years	46	19.8%
	More than 7 years	11	4.7%

As showed in demographic Table no 1, 232 employees involved as a participant in this survey, 155 were males as equallant 67% and 55 where females' as equallant 33%. 15 employees involved between 20-30 age (6.5%), 124 employees involved with aged 31-40(53.4%) majority of employees fall under this category, 57 employees between the range of 41-50 which is (24.6%), 36 employees above the aged 50 years (15.5%).

According to academic qualification 45 employees had bachelor's degree equallant to 19.8%. 80 employees were matriculation which is 34.5% of the total sample, 81 maximum employees hold Master's degree which is equal to 34.9% and 25 employees were PhD holders that are involved in this survey. As a material status 125participant were single equallant to 54.9%, participants were married 98 (42.2%), 5(2.2%) participants were divorced and 4 were widowed which is 1.7%.

On the bases of race 220 participants were Muslims, 10 were non-Muslims or only 2 participants where chines fulfill the questionnaire. Respectively 94.8%, 4.3%or 0.8%. As respecting job tenure 37 participants working had been less than one year which is 15.9%, majority of participants had been 91 (39.2%) working between 1 to 2 years,47 participants had been working between 3 to 4 years which is



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

20.3%, 46 participants had been working among 5 to 6 years as ratio 19.8%, 11 participants had been working more than 7 years which is 4.7% of whole sample.

**Table 2: Factor Analysis of the Dependent Variable**

	Component
I made someone feel physically intimidated either through threats or carelessness at work.	
I blamed someone else or let someone else take the blame for my mistake.	.850
I took property from work without permission.	
I made an ethnic or sexually harassing remark or joke at work.	.816
I padded an expenses account to get reimbursed for more money than I spent on business expenses.	.809
I accepted a gift/ favor in exchange for preferential treatment.	
I spread gossips about co-worker.	.788
I cursed someone at work.	
I always took an additional or longer break than is acceptable at my place of work.	.795
I showed favoritism for a fellow employee or subordinate employee.	
I intentionally worked slower than I could have worked.	.789
	.795
	.750
	.722
	.710
	.715
% Variance explained	
KMO value to Measure Sample Adequacy	62.09%
MSA	0.845
	.905-
	.947

Principal component factor analysis with varimax rotation was performed to examine the dimensionality of items measuring the dependent variable. The showing in this table no. 2, 62.09% variation explained by one extracted factor. Kaiser-Meyer-Olkin is used to measure the sufficiency of sample used in the (Hadi, Abdullah, & Sentosa, 2016). According to (Field, 2000) If the value of KMO is greater than 0.5 then and according to (Pallant, 2020) the KMO value should be high from 0.6 then sample is adequate. Here KMO Value IS 0.845 which is higher from the threshold range. This table shows that sample is enough to perform the factor analysis. The values of MSA are lies between 0.905 and 0.947 prop up the



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

results. NO items removed from the data set to perfume the analysis these items prepared to perform further analysis.

**Table3: Factor Analysis of the mediating or in depending variable**

	1	2	3	4
Overall, I'm treated fairly by my organization.	.845			
In general, I can count on this organization to be fair.	.820			
In general, the treatment I receive around here is fair.	.805			
For the most part, this organization treats its employees fairly.	.785			
My manager keeps his/her promises.		.788		
My manager generally tells the truth.		.775		
My manager does things to further my interests.		.715		
My manager tries to help when he/she can		.665		
My manager acts as I expect him/her to.		.609		
In this company, people are mostly out for themselves.				
Work is considered substandard only when it hurts the company's interests.			.745	
There is no room for one's personal morals or ethics in this company.			.695	
			.673	
In this company, people protect their own interests above others.				
People are expected to do anything to further the company's interest rather than individuals' interest, regardless of the consequences.			.665	.820
How satisfied are you with the nature of the work you perform?				.805
How satisfied are you with the person who supervises you [your organizational superior]?				.744
How satisfied are you with your relations with others in the organization with whom you work [your co-workers or peers]?				.816
How satisfied are you with the pay you receive for your job?				.822
How satisfied are you with the opportunities which exist in this organization for advancement [promotion]?				.755
Considering everything, how satisfied are you with your current job situation?				
61.45% Variance explained	17.39	16.03	14.34	13.69
KMO value to Measure Sample Adequacy				.870
MSA				.799- .934

Principal component factor analysis with varimax rotation was also performed to examine the dimensionality of items measuring the independent variables and mediating variable. As showing table 3 61.45 % variation explained by collectively three independent or one mediating variable. KMO value is .870 higher than the threshold range. KMO describe that sample is enough to perform factor analysis. The value of MSA is between 0.799 to 0.934 shows that the data are stufiest to form the factor structure



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

in this study.

From table.3, the first component represents organization justice which contains five items to measure the data, one item deleted from the organizational justice due to high intercross filling and remaining four items have loading ranging was 0.791 to 0.852. The second component was ethical climate it consists five items it also no deleted any item but in organizational support 1 item deleted from the five items which contains due to high cross loading. And the remaining four items have loadings ranging from 0.581 to 0.826. and last component was employees job satisfaction no item deleted from this section.

**Table4. Correlation and Reliability Analyses Results**

No	Variables	Mean	SD	1	2	3	4	5
1	Ethical Work Climate	3.88	.73	(.759)				
2	Organizational Justice	2.65	.70	.457**	(.872)			
3	Organizational Support	4.11	.59	.459**	-.121*	(.746)		
4	Deviant Workplace Behavior	2.15	.87	.045	-	.061	(.912)	
5	Employees Job Satisfaction	3.82	.65	.605	.399**	.173*	.073	(.945)

**Notes: \*\*.at 0.01 level correlation is significant 1-tailed); \*. At 0.05 level correlation is significant (1-tailed); N=232**

(Descriptive analysis) Correlation or reliability of data is measure through mean or standard deviation of the dependent or independent or meditating variables. Mentioning in table 4 the highest mean is 4.11 of organizational support from the all-other variables. In 2<sup>nd</sup> number ethical work climate value falls which is 3.88. After that at 3<sup>rd</sup> number as a ranked for mean employee job satisfaction which is 3.82. deviant workplace behavior value of mean is 2.15 which is at 4<sup>th</sup> number and at the end lowest value of mean is 2.15 of organizational justice.

The concept of measuring the items, reliability is a standard of the stability and regularity to assess the goodness and measure (Sekaran & Bougie, 2016). For measuring the reliability of instrument researcher used Cronbach alpha value between 0 to 1. The value (.945) or (.912) is excellent value of employee job satisfaction or deviant workplace behavior respectively. Organization justice value which is (.872) it was very good as ranked between all values. And at the end the value of ethical work climate or organizational support as respectively (.759), (.746) implying good reliability coefficient.

The value of organization support out of all three variables is less than the p value  $p > -.121^*$  buy it is significantly correlated with the dependent variable of deviant workplace behavior.



**7TH CBIBM  
2022**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table5 Multiple Regression Analysis Results**

Variables	Standardized Beta Coefficients
Ethical Work Climate	-.450**
Organizational justice	.195*
Organizational support	-.088
R	.795
R <sup>2</sup>	.621
Adjusted R <sup>2</sup>	.671
F Value	130.5
Sig. F Value	.000
Durbin Watson	1.703

The table 5 shows the results of multiple regression model analysis. The value of R<sup>2</sup> is .621 it means 62% variation explained by model independent variables 62% contribute in dependent variable. F value is 130.5 of this model and significant is p>0.01. There are two independent variables such as ethical work climate or organizational justice that have significant relationship with the dependent variable of deviant workplace behavior the value of ethical work climate is -.450\*\* it is significant but negatively create relationship with deviant workplace behavior or value of organizational justice .195\* and positive relationship with deviant workplace behavior. And organizational support has negative influence on deviant workplace behavior the value of organizational support is -.088.

Previous studies of (Aryati, Sudiro, Hadiwidjaja, & Noermijati, 2018; Haldorai, Kim, Chang, & Li, 2020; Vardi, 2001) indicates that the ethical work climate has highly negative impact on deviant workplace behavior. The (Sims, 1992) said that organization first create mission statement in which all code of ethics describe for all employees if there is no code of ethics, it create unethical behavior in the organizations and conduct miss behavior between management of sab ordinates. Organizations should create ethical environment in the organizations so that employee work in healthy environment. Leaders must behave ethically in the organizations. Employees first learn everything from the upper management. In this study researcher proves there is negative relationship between ethical work climate or deviant workplace behavior. H<sub>1</sub> accepted in this research.

The result of Organization support indicates that there is a negative relationship between organizational support or deviant workplace behavior. There is no significance between both variables. Organization support is interconnected to the deviant behavior(Abdul Rahman, 2008).Supervisor directly or indirectly evaluate their subordinate’s performance because they performed their responsibilities between head and employees as an agent and rate their work (Eisenberger et al., 1986). Unhappiness, negative mood and bad feelings about organization it acts to deviant in the organizations. When employees feel their organization is not supportive they engaged in destructive behavior in the organization (Salas, 2022).H<sub>2</sub> accepted in this research.

Researcher found that in this multiple regression analysis there is positive relationship between organization justice and deviant workplace behavior. Both variables significantly connected with each other. But previous studies of (Ambrose, Seabright, & Schminke, 2002; Jones & Skarlicki, 2005) indicates that organization injustice is a strong predictor of damaging or negative behavior.





**7TH CBIBM  
2022**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Organization injustice behavior transfer a message organizations not treated them fairly (Greenberg, 2004). When they feel they are not treated fairly they misbehave and move to deviant workplace behavior. This hypothesis, H<sub>3</sub> is rejected.

**Mediation Analysis:**

**Direct effect of organization support, organizational justice, ethical climate, employee job satisfaction and deviant workplace behavior:**

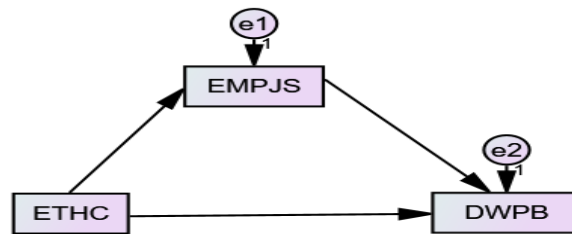
The direct effect of ethical climate, organizational support or organizational justice on employee job satisfaction and deviant work place behavior. The results of variables are as follows.

**Table 6. Standardized Regression Weights**

Interaction between variables	Estimated value	Critical value	Significance
EJS-OS	.315	7.305	***
EJS-OJ	.316	8.381	***
EJS-EC	.676	13.737	***
DWB-OS	.885	17.850	***
DWB-OJ	.725	2.868	0.004
DWB-EC	.321	1.044	.234
DWB-EJS	.487	5.556	***

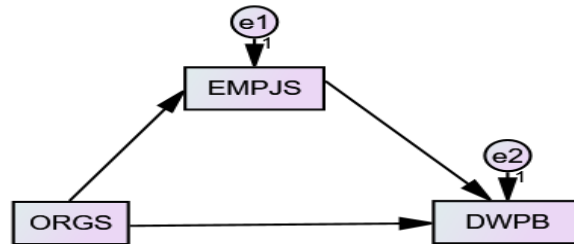
As showing in table 6 the effect of employee job satisfaction on organizational support was develop significant at significant level. This result indicates that increase in organization support by 1 unit at the Likert scale, employees job satisfaction would be increase .0.315at the Likert scale. Organizational support has positive and significant impact on increasing employees job satisfaction. The relationship between employee’s job satisfaction and organizational justice is positive and significant. If we increase in organizational 1 unit it will bring change in employee job satisfaction.316. Ethical climate positive or significant influence on employee job satisfaction. If value increased one unit in ethical climate the value of employee job satisfaction was increased .481. all these above variables of OS, OJ, EC indicates that employees job satisfaction is necessary for the employees these variables directly influence on the performance of employees.

On the other hand, the direct effect of organization support on deviant workplace behavior is positive or significant increase in one unit of organizational support it will increase in deviant workplace behavior at .885 level. It’s very high from all other interactional variables. It is highly impact on deviant workplace behavior. If organization increase one unit of organizational justice it impacts on deviant work place behavior at .725 level. It is positive but not significant. On the other analysis it is significantly impact on deviant behavior but through mediation analysis it creates insignificant path between OJ and DWB. Increase in ethical climate one unit it directly influences on deviant workplace behavior at .321 level but it is significant. At the end the magnitude of the effect of employee job satisfaction directly creates positive or significant path with deviant workplace behavior with increase one the value generated was.487.



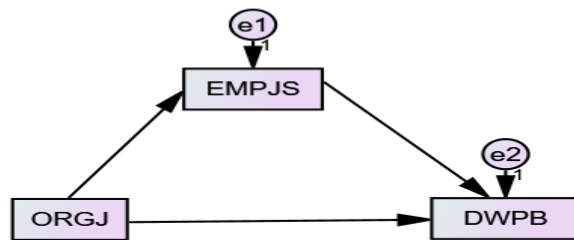
The results shows in above table no 6, that mediating impact of EJS on EC and DWB based on the framework of (Baron & Kenny, 1986). The estimated path value between EC and EJS was 13.737. On the other hand, the evaluated value of among EJS and DWB was 5.558. Both path of EC and EJS or EJS and DWB are significantly interconnected with each other but direct path of EC and DWB is showing insignificant results. The value was 1.044. This mediation shows that their relationship exists through mediator only. Fully mediation exist in this figure2.Hypothesises 4 accepted because mediation exist through mediator. Employees job satisfaction significantly mediates the relationship between EC and DWB.

Indirect effect of organization support , employee job satisfaction and deviant workplce behavior:



The above results shows that mediating impact of EJS on OS and DWB based on the framework of (Baron & Kenny, 1986). The value of evaluated distance among OS and EJS was 7.305 while, the evaluated path of EJS and DWB was 5.558 and obtained path between OS and DWB was 17.850. The relationship between OS and DWB through EJS is significant. All path shows the significant relationship between three variables directly or indirectly. Hypothesis 5 accepted. The results proves that there is a mediation between OS and DWB. EJS significantly plays a role among OS and DWB . Partial mediation exists in this figure 3.

**Indirect effect of organization justice, employee job satisfaction and deviant workplce behavior:**



Furthermore, As showing above results tested of mediation analysis, the influence of EJS on OJ and on



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

DWB. The estimated path value of OJ and EJS was 8.381. This value is significant at level of 5%. While, the evaluated value of EJS and DWB was 5.558. The effect of EJS on deviant workplace behavior is also significant. The value developed between OJ and DWB was 2.864. OJ shows insignificant impact on DWB in this figure 4. Here mediation exists through mediator between OJ and DWB. Fully mediation exists in this figure 6.

### **Conclusion:**

Deviant workplace behavior is a prevalent problem now a days in all public or private sectors that influence on the work performance of the employees. This study examines the mediating effect of employee's job satisfaction between EC, OS, OJ and DWB of public sector university from the Punjab. For the purpose of gathering data proper questionnaire distributed among the employee of public sector. Researcher selected 250 as a sample from the whole population. And response rate was 92%. 66% was female involved and 32% male. Purposive sampling technique used for this research. For measuring data 5-point Likert scale used. Structural Equation Modeling (SEM) approach used to check the mediating influence on EC, OS, OJ and DWB. This study shows the fully mediation exists between EC, EJS and DWB or OJ, EJS and DWB. Through mediation shows significant results but direct path was insignificant. Partial mediation exists between OS, EJS and DWB. All path shows significant results. Research only used single point of time data focus on cross sectional study. The other researchers can collect data for multiple points of data (longitudinal study). In this study researcher only used one variable employees job satisfaction as a mediator the next one can use stress, personality factors or work-related factors as a mediator. The future researcher can use different variables as moderator. This study implies on public sector the future researcher can implies it on private sector. This study will help for the top management because this study provides many things that influence on the employees work performance. Or other factors that become a reason to reduce the organization performance.

### **References**

- Abdul Rahman, A. (2008). Predictors of workplace deviance behaviour in Malaysia. *Unpublished PhD Dissertation, University Sains Malaysia*.
- Adams, G. A., King, L. A., & King, D. W. (1996). Relationships of job and family involvement, family social support, and work–family conflict with job and life satisfaction. *Journal of applied psychology, 81*(4), 411.
- Adams, J. S. (1965). Inequity in social exchange. In *Advances in experimental social psychology* (Vol. 2, pp. 267-299): Elsevier.
- Ahmad, A., & Omar, Z. (2014). Reducing deviant behavior through workplace spirituality and job satisfaction. *Asian Social Science, 10*(19), 107.
- Allen, D. G., Shore, L. M., & Griffeth, R. W. (2003). The role of perceived organizational support and supportive human resource practices in the turnover process. *Journal of management, 29*(1), 99-118.
- Ambrose, M. L., Seabright, M. A., & Schminke, M. (2002). Sabotage in the workplace: The role of organizational injustice. *Organizational behavior and human decision processes, 89*(1), 947-965.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Aryati, A. S., Sudiro, A., Hadiwidjaja, D., & Noermijati, N. (2018). The influence of ethical leadership to deviant workplace behavior mediated by ethical climate and organizational commitment. *International Journal of Law and Management*.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173.

Bies, R. J. (1986). Interactional justice: Communication criteria of fairness. *Research on negotiation in organizations*, 1, 43-55.

Chernyak-Hai, L., & Tziner, A. (2014). Relationships between counterproductive work behavior, perceived justice and climate, occupational status, and leader-member exchange. *Revista de Psicología del Trabajo y de las Organizaciones*, 30(1), 1-12.

Edgar, F., & Geare, A. (2005). HRM practice and employee attitudes: different measures–different results. *Personnel review*.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of applied psychology*, 71(3), 500.

Fila, M. J., Paik, L. S., Griffeth, R. W., & Allen, D. (2014). Disaggregating job satisfaction: Effects of perceived demands, control, and support. *Journal of business and psychology*, 29(4), 639-649.

Greenberg, J. (1990a). Employee Theft As A Reaction to Underpayment Inequity: The Hidden Cost of Pay Cuts. 75, 561-568. doi:10.1037/0021-9010.75.6.667

Greenberg, J. (1990b). Organizational justice: Yesterday, today, and tomorrow. *Journal of management*, 16(2), 399-432.

Greenberg, J. (2004). Stress Fairness to Fare No Stress: Managing Workplace Stress by Promoting Organizational Justice. *Organizational Dynamics*, 33, 352-365. doi:10.1016/j.orgdyn.2004.09.003

Griffin, R. W., O'Leary-Kelly, A., & Collins, J. (1998). Dysfunctional work behaviors in organizations. *Journal of Organizational Behavior (1986-1998)*, 65.

Hadi, N. U., Abdullah, N., & Sentosa, I. (2016). An easy approach to exploratory factor analysis: Marketing perspective. *Journal of Educational and Social Research*, 6(1), 215.

Haldorai, K., Kim, W. G., Chang, H. S., & Li, J. J. (2020). Workplace spirituality as a mediator between ethical climate and workplace deviant behavior. *International Journal of Hospitality Management*, 86, 102372.

Harper, D. (1990). Spotlight abuse-save profits. *Industrial distribution*, 79(3), 47-51.

Henle, C. A. (2005). Predicting workplace deviance from the interaction between organizational justice and personality. *Journal of managerial issues*, 247-263.

Henle, C. A., Giacalone, R. A., & Jurkiewicz, C. L. (2005). The role of ethical ideology in workplace deviance. *Journal of business Ethics*, 56(3), 219-230.

Homans, G. C. (1958). Social behavior as exchange. *American journal of sociology*, 63(6), 597-606.





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Jones, D., & Skarlicki, D. (2005). The Effects of Overhearing Peers Discuss an Authority's Fairness Reputation on Reactions to Subsequent Treatment. *The Journal of applied psychology*, 90, 363-372. doi:10.1037/0021-9010.90.2.363

Kottke, J. L., & Sharafinski, C. E. (1988). Measuring perceived supervisory and organizational support. *Educational and psychological Measurement*, 48(4), 1075-1079.

Lee, H., & Chui, J. (2019). The mediating effect of interactional justice on human resource practices and organizational support in a healthcare organization. *Journal of Organizational Effectiveness: People and Performance*.

Leventhal, G. S. (1980). What should be done with equity theory? In *Social exchange* (pp. 27-55): Springer.

Litzky, B. E., Eddleston, K. A., & Kidder, D. L. (2006). The good, the bad, and the misguided: How managers inadvertently encourage deviant behaviors. *Academy of management perspectives*, 20(1), 91-103.

Liu, N.-T., & Ding, C. G. (2012). General ethical judgments, perceived organizational support, interactional justice, and workplace deviance. *The International Journal of Human Resource Management*, 23(13), 2712-2735.

Mishra, M., & Pandey, S. (2014). A theoretical model on the determinants of workplace deviance among employees in the public service organizations of India. *International Journal of Business Behavior*, 2(3).

Ojo, B. Y., & Tamunoipiriala, D.-J. C. (2019). Organisational predators of workplace deviant behaviour in hotel industry. *Journal of Tourism Management Research*, 6(1), 1-18.

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*: Routledge.

Puffer, S. M. (1987). Prosocial behavior, noncompliant behavior, and work performance among commission salespeople. *Journal of applied psychology*, 72(4), 615.

Rahman, M. F. M. I. (2022). Factors Contributing to Employee Workplace Deviant Behaviors in Public Sector Organizations.

Reichers, A. E., & Schneider, B. (1990). Climate and culture: An evolution of constructs. *Organizational climate and culture*, 1, 5-39.

RJ, R. S. B. (1995). A typology of deviant workplace behaviors: a multidimensional scaling study. *Academy of management journal*, 382, 555-572.

Robinson, S. L., & Bennett, R. J. (1995). A typology of deviant workplace behaviors: A multidimensional scaling study. *Academy of management journal*, 38(2), 555-572.

Robinson, S. L., & Greenberg, J. (1998). Employees behaving badly: Dimensions, determinants and dilemmas in the study of workplace deviance. *Journal of Organizational Behavior (1986-1998)*, 1.

Robinson, S. L., & O'Leary-Kelly, A. M. (1998). Monkey see, monkey do: The influence of work groups on the antisocial behavior of employees. *Academy of management journal*, 41(6), 658-672.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Sageer, A., Rafat, S., & Agarwal, P. (2012). Identification of variables affecting employee satisfaction and their impact on the organization. *IOSR Journal of business and management*, 5(1), 32-39.
- Salas, S. (2022). A study of the relationship between employee virtuality and technology deviance as mediated by leadership and employee perceptions. *ProQuest ETD Collection for FIU*.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*: John Wiley & sons.
- Sims, R. R. (1992). The challenge of ethical behavior in organizations. *Journal of business Ethics*, 11(7), 505-513.
- Tang, S. w., Siu, O. I., & Cheung, F. (2014). A study of work–family enrichment among Chinese employees: The mediating role between work support and job satisfaction. *Applied Psychology*, 63(1), 130-150.
- Thibaut, J. W., & Walker, L. (1975). *Procedural justice: A psychological analysis*: L. Erlbaum Associates.
- Tsui, A. S., Egan, T. D., & O'Reilly III, C. A. (1992). Being different: Relational demography and organizational attachment. *Administrative science quarterly*, 549-579.
- Tuna, M., Ghazzawi, I., Yesiltas, M., Tuna, A. A., & Arslan, S. (2016). The effects of the perceived external prestige of the organization on employee deviant workplace behavior: The mediating role of job satisfaction. *International Journal of Contemporary Hospitality Management*.
- Vardi, Y. (2001). The effects of organizational and ethical climates on misconduct at work. *Journal of Business ethics*, 29(4), 325-337.
- Vardi, Y., & Wiener, Y. (1996). Misbehavior in organizations: A motivational framework. *Organization science*, 7(2), 151-165.
- Victor, B., & Cullen, J. B. (1988). The organizational bases of ethical work climates. *Administrative science quarterly*, 101-125.
- Wang, Y.-D., & Hsieh, H.-H. (2013). Organizational ethical climate, perceived organizational support, and employee silence: A cross-level investigation. *Human relations*, 66(6), 783-802.
- Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of management journal*, 44(4), 682-696.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Failure to Enact Emotional Intelligence: Moderating Role Of Ostracism And Abusive Supervision**

Abeera Arif

University of the Punjab, Gujranwala Campus

Dr. Naveed Iqbal

University of the Punjab, Gujranwala Campus

### **Abstract**

This study aims at unfolding the nature of relationship among emotional intelligence and workplace mistreatments by setting new standards in the contexture of workplace mistreatments and liberating them in Pakistan as emotional intelligence is one of the most extravagant trait to steer social environments. The researcher in this study has used online survey strategy for data collection from respondents of multiple sectors. Convenience sampling technique and a cross-sectional study is preferred while incorporating SEM to elevate the cause effect relationship of the variables. AMOS and SPSS 21 are used for hypothesis testing and initial screening of data. The analysis proves the significant relationship among the variables indicating that ostracism and abusive supervision significantly recedes the work oriented behavior of the employees and it can adversely affect trait enactment. This study marks the creation of better understanding of human culture and behavior in working environment and for the management to make space for their employees in terms of being understood for better productivity. Provision of margin of error to the employees is necessary as they are too prone to emotional traumas and exhaustion. This study is one of its kind as it targets the unexamined parts of the previous studies accomplishing new pathways in completely new ambience which is Pakistan and for the first time Abusive Supervision has been tested in the model. The inception of untouched dimensions is an original contribution of the researcher.

**Keywords:** Workplace Ostracism, Emotional Intelligence, Abusive Supervision, Emotional Intelligence Enactment.

### **Introduction**

Emotional intelligence is the skill of understanding emotional states of others and one's own self. It is such a valuable characteristic which has led to social functioning and attachments within society over a period of time. Emotional Intelligence (EI) indicates to the ability of apprehension of people to the appropriate way of perceiving, using, comprehending, and bridling a conscious mental reaction in the one's own self and in others (Mayer & Salovey, 1997). EI has been accepted to be an imperative quality and a significant characteristic for people doing managerial and jobs that require high emotional strength due to which EI has gained hype in recent years. According to Côté and Miners (2006), it has been said the organizations tend to recruit people who ascertain a competitive edge of cognitive ability a compared to others due to which they are able to process more complex and technical information. Researchers and scholars have started to put attention towards the context of Emotional intelligence as there is much more to explore and to unfold. Thus Emotional Intelligence is now being made a very consequential element in trainings and personnel selection processes in the organizations. No doubt, Employee training sessions have shown a very positive impact in polishing and engraving emotional intelligence in



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

personalities of employees. (Munir & Azam, 2017)

As Emotional intelligence has earned a lot of enthrallment over past few years, experimenters and investigators have questioned a very interesting aspect regarding its rule of conduct which demonstrates that emotionally alert workers within an organization can efficiently implement their ability of being emotional intelligent daily at work and can enjoy its fruitful results easily. This premise is actively being remonstrated by the scholars by emphasizing that having to possess high emotional intelligence will not result into upright enactment of that respective trait (Cameron & Spreitzer, 2012). There can be a lot of possible reasons that can consequently lead to emotional damage which mainly are contemptuous jokes, racial slurs, personal insults, and expressions of disgust or intolerance toward a particular race. To date, many constructs have been introduced in the lexicon of mistreatment with examples including workplace incivility, mobbing, emotional abuse, abusive supervision, social undermining, workplace victimization, bullying, aggression, interpersonal conflicts, anti-social behavior, interpersonal deviance, counterproductive work behaviors, retaliation, and revenge (Hershcovis, 2011). Abuse may take the following forms ranging from mocking a worker's accent to psychologically intimidating and creating a formidable impression on employees by making intentional threats or signaling them with unethical prejudiced symbols and ensigns.

Former inquisition has been successful in proving the point that the risks of emotional exhaustion can be accelerated by confrontation of inconsiderateness, however, very little information regarding the mitigators has been known till date (Anjum, Liang, Durrani, & Parvez, 2020). In the past two decades, Exponential build up has been observed in the contextual study of workplace mistreatments leading to providing heaps of knowledge which provided heaps of worthy knowledge and valuable insights (Hershcovis, 2011). If maltreatments continue to effect the organizations adversely it can hover over skillfulness of the employees and end up into low efficient, depressed and low esteemed employees causing high employee turnover, low work prosecution, low counterproductive efficiency, sleep disturbance, health issues, boosted suicide rates, anxiety, stress, psychological instability and much more horrendous outcomes might come under consideration. In this regard several international studies have been conducted in order to explore the context such as in China (Ma, Zeng, & Fang, 2022), Malaysia (Lim, Koay, & Chong, 2020) USA (Howard & Cordes, 2010) and in local context Pakistan (Anjum et al., 2020), (Khan, 2014) studies have been conducted to add impact to local literature. This discussion shows that there is an emerging need to further explore this problem which is the core reason of selecting this topic.

This research is designed to unfold and deeply study relationship between all the variables of the model, to study the relationship significance between the variables, to examine the moderation effect of workplace ostracism on emotional intelligence enactment and work perpetration, to reveal the impact of abusive supervision on emotional intelligence enactment and work pursuance, to reveal the contributing factors that makes an employee emotionally weak when they are ostracized and finally to investigate why emotionally active employees fail to practice emotional intelligence when excluded from social acceptance and when face harsh unsupportive supervision. Following are the objectives that the researcher intends to put into effect in this study.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

RO1: To study in-depth impact of workplace ostracism on Emotional Intelligence of emotionally strong employees and its apparent impact on their work productivity

RO2: To reveal the contribution that the moderating variable Workplace Ostracism makes in the indirect relationship of emotional intelligence, its enactment and eventually on productivity of employees

RO3: To study in-depth impact of Abusive Supervision on Emotional Intelligence of emotionally savvy employees and its influence on their output

RO4: To bring forward the impact of the moderating variable Abusive supervision in the indirect relationship of emotional intelligence, its enactment and eventually on work efficacy of employees

## Literature Review

In this section, prior studies are reviewed by the researcher using relational literature review in order to develop the hypothesis and framework of the study.

### *2.1 Emotional Intelligence, Emotional Intelligence-enactment and workplace ostracism*

By definition, accumulated emotion-subjected competencies are what that constitutes for Emotional intelligence for being better adapted to utilize one's emotions, understanding them, being able to ascertain the essence of emotional intelligence and competently manage them. This is what true emotional stability calls for (Mayer & Salovey, 1997). Workplace ostracism is the discernment of being forsaken and excluded by others at work within or outside work boundaries (Ferris, Lian, Brown, & Morrison, 2015). It is associated more with the idea of omitting and neglecting people rather than rehabilitation of engaging someone within the boundary of socialism as well as oppressively impeding the native's need for social belongingness (Williams, 2009). According to whole trait theory, EI lies within a person's personality and EI-enactment is what that indicates the limit to which a worker can actually cannibalize their Emotional activity in a given stance of duration (Fleeson & Jayawickreme, 2015). As the writer suggests, Whole trait theory claims to emphasize that trait enactment can efficiently be aggrandized or retrenched by both motivational and socio-cognitive legates depending upon an event which has a potential to trigger enactment which connects to a psychological need of a person. An event retarding the need of belongingness can greatly constrict implication of trait enactment (Prentice, Jayawickreme, & Fleeson, 2019).

The first study done on the relationship of effects of social exclusion on intelligent thoughts was done by Christopher K. Nuss, Roy F. Baumeister and Jean M. Twenge in 2002. The results of the study were unambiguous to reveal that blitz curtails in intelligent thoughts including IQ and Graduate Record Examination test rendition were witnessed among the people who were told that they were more prone towards developing social aversion and were likely to end up lonely in their lives.

This decreasing trend of cognitive efficiency was likely to be more observed when given challenging brain tasks such as complex logic and reasoning while people's ability to process simple information remained integral and complete even under the effect of social exclusion (Baumeister, Twenge, & Nuss, 2002). Another study done in 2012 by Long Zeng Wu, Frederick Hong kit Yim, Ho Kwong Kwan, Xiaomeng Zhang successfully indicates that a direct relationship exists between the contextual variables workplace ostracism and psychological distress. The study also demonstrates that when the findings indicated high employee political ability, a neutralization impact was observed between both variables due to integration. In contrast to low employee political dexterity, the association was exacerbated by integration among the inconstants (L. Z. Wu, Yim, Kwan, & Zhang, 2012). It is very interesting to note





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

that a study conducted by (Chung, 2018) clearly states that workplace ostracism is a stressor, it can lead to social distress and lack of enthusiasm and work motivation can be the consequences for subordinates facing ostracism. It also when employees are in the state of low emotional empowerment, at that time ostracism is most effective. Suchuan Zhang and Qiao Shi in a recent investigation study in 2017 affirms that positive correspondence between NA and organizational ostracism weakened while the negative association among life satisfaction, workplace ostracism and PA were fortified and strengthened when the hirings substantiated proliferated levels of EI (Zhang & Shi, 2017). An investigation conducted in September 2021 by Jie Ma, Zhiliang Zeng, Ke Fang has hit the narrative that the analysis on data collected bespeaks dense nature of relationship between employees' normal stratum of EI and their weekly EI-enactment downgraded with an effective manner due to de-escalation of weekly workplace ostracism as well as there was detectable counteracting representation conformed to effect of EI on weekly service fertility via EI-enactment pinpointing EI being stretched to its boundaries by the moderating variable (Ma et al., 2022). Therefore this is the first accomplishment to reveal a limit condition for workforce EI-enactment and offers a valuable concept into when EI fails to make a difference. On the basis of above discussion following hypothesis on above study is deduced.

H1: Workplace Ostracism moderates the relationship between Emotional intelligence and Emotional Intelligence-enactment

### **Workplace ostracism, Emotional Intelligence, EI- enactment Work Performance**

According to (Tepper, 2000), Abusive supervision is described as the perception of employees that to what extent supervisors are involved in verbal and non verbal abuse in an organization. Whole trait theory upon which this study is based corely reflects a fundamental concept that the employee scores does not make any difference on the measurement scale of EI, either its high or low, the central contribution is made by EI-enactment which ultimately engraves it impact on work efficiency.

In 2001, a research analysis conducted under the supervision of Kristin L. Sommer, Kipling D. Williams and Natalie J. Ciarocco and Roy F. Baumeister disclosed that the potential audience which failed to accredit workplace ostracism to a main situation got more inclined towards enduring threats to sense of belongingness and self-conceit in comparison to those who actively understood their intended treatment. In case of people who were more vulnerable as compared to others, towards threats to belongingness, self-esteem and meaningful existence were found to be more doubtful that people acted oblivious of their presence. Also they were found to be more socially affiliated. More ostracism was faced by people who were low in self esteem and appreciation and were also likely to act in defense i.e. ostracized more people against criticism or rejection. It was emphasized that ostracism is a useful tactic as in involvement of relations between people due to perspective disagreements which ultimately led to feelings of recession and grievance (Sommer, Williams, Ciarocco, & Baumeister, 2001).

A study conducted in 2010 shows the negative relationship of ostracism and employee work efficiency by indicating that respondents prone to ostracism has poor productivity at work and lower mood upraises (Lustenberger & Jagacinski, 2010). Similar conclusion has been drawn by a study conducted in



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

2012 which evaluates the relationships by investigating that the approval of the scale was of the representation that segregation was adversely connected with belongingness, confidence, control, and significant presence, and emphatically connected with nervousness and discouragement (Yang, 2012). (De Clercq, Haq, & Azeem, 2018) have successfully concluded following results from their study conducted in 2018 claiming that employees tend to work more efficiently if they are assured of the fact that their colleagues and supervisors have their back and are supportive in all curricular and co-curricular matters attaining a sense of coordination and coherence within the workspace. What actually happens is when a personnel is ostracized, he tends to implement all his resources to a negative pathway like he invest all his energies in dealing with anxiety, depression and they start doubting their presence in the organization. Hence, the study reports that workplace ostracism relates negatively to job performance. A study conducted in 2019 by Aijing Xia, Bin Wang, Baihe Song, Wei Zhang, Jing Qian concluded that the results were of absolute conformity that workplace ostracism adversely linked to physical strength and emotional energy levels decreasing task efficacy and efficiency. It was analyzed using information gathered from 117 supervisors and 523 of their job holders (Xia, Wang, Song, Zhang, & Qian, 2019). Another research done recently in 2020 shows that by collecting three-wave data from employees and their acquaintances in Pakistani institutions reveal that segregation in the working environment frustrates work execution since representatives latently keep significant thoughts regarding their work because of sensations of quiet submission (Jahanzeb, Fatima, Javed, & Giles, 2020) which is also highlighting the negative impact of WO on EI, EI-enactment and work efficacy. Based on the above discussion on results and analysis, following hypothesis is formulated.

H2: Workplace Ostracism moderates the indirect relationship of EI with Work Performance via EI-enactment

### **Abusive supervision, Emotional intelligence, Emotional intelligence enactment**

The following are some of the definition of abusive supervision as the first paper of 2018 states that (Yu, Duffy, & Tepper, 2018) in the Academy of Management Journal: “The leadership literature has identified a variety of behaviors that supervisory leaders employ. The abusive supervision behavioral domain consists of hostile acts that include yelling at direct reports, and derogating, blaming, and ostracizing them”. (Fiset, Robinson, & Saffie-Robertson, 2019) in the European Journal of Work and Organizational Psychology writes that sustained representation of inimical, rhetorical and nonverbal demeanor exclusive of material connection is what abusive supervision is (Tepper, 2000, p. 178). Richard, Boncoeur, Chen, and Ford (2020) in the Journal of Business Ethics says that Ethical and moral constituent is where abusive supervision misses the mark and is delineated as the degree to which a prompt manager participates in predictable threatening oral and symbolic activities towards an acquaintance. A study in 2007 undertaken by Kenneth J. Harris, K. Michele Kacmar, Suzanne Zivnuska picturizes that results of their study show that abusive supervision is inversely related to productiveness ratings mentioned (i.e., formal and supervisor ratings) and that the meaning of work moderated all three of the relationships mentioned in the paper. Strengths, limitations, practical implications, and directions



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

for future research are already provided (Harris, Kacmar, & Zivnuska, 2007). Sample consisting of 372 forefront bank employees in Taiwan is what another study held in 2012 anatomized. It was found that Emotional Intelligence moderated the affinity between ASP and ELB whereas intellectual anguish completely interceded the connection between Abusive management discernment and Emotional work trouble, pinpointing a weak and insignificant linkage between ASP and ELB for employees with higher EI. Partial mediation was taken forward by PD for the interaction of ASP and EI (Hu, 2012). In 2016, another research investigation demonstrates a tested procedure in which a restrictive interaction model assesses the impacts of oppressive management on subordinate work and occupation withdrawal as interceded by pessimistic feelings and directed by orientation which was supported by their model. Abusive supervision expanded work and occupation withdrawal by means of casualties' pessimistic responses. The aftermath address that women engage more in work withdrawal with low antipathetic emotions whereas men in high antipathetic emotions either quit their jobs or act alike women in the addressed condition (Atwater et al., 2016). Very similar conclusion has been drawn in a recent study in 2021 by Mirza Waseem Abbas, M Ali, Iqra Amin, M Khyzer Bin Dost which probed that findings from their research show that abusive supervision has a direct relationship with close to home weariness of representatives, their ways of behaving that are in opposition to the upsides of the association and their arrangement to leave the association while the capacity to understand people on a profound level didn't go about as a mediator with the concerned factors in this review also the capacity to understand individuals on a profound level is a significant hotspot for laborers to rise above the adverse consequences of misuse. The ongoing review presumes that organizations need to comprehend the harming effects of the oppressive way of behaving of administrators and should attempt to forestall such ways of behaving by carrying out moral initiative and formulating HR arrangements to help the subordinates, diminish distressing circumstances and abuses among representatives (Abbas, Ali, & Dost, 2021). On the basis of this discussion following hypothesis is derived.

H3: Abusive Supervision moderates the relationship between Emotional Intelligence and EI-enactment

### **Abusive supervision, Emotional intelligence, Emotional intelligence enactment and work performance**

A research study conducted by Tsung-Yu Wu and Changya Hu in 2009 has gathered up results which show that abusive supervision was directly linked to emotional frustration whereas self estimation was counteract correlated to abusive supervision. Both accomplished peer help and weakness to enthusiastic infection which assumed its part by directing the relationship between's oppressive management and close to home weariness (T.-Y. Wu & Hu, 2009). Similarly, a study in 2015 scrutinizes the contribution of abusive supervision towards co-workers, objective work productivity. Among two independent studies, the negative connection between saw subordinate execution and oppressive management was found to rely on a manager's result reliance on subordinates however not on a boss' preferring of subordinates. Moreover, Study 2 illustrated (a) a negative relationship between oppressive management and subordinates' resulting objective execution and (b) a restrictive roundabout impact of seen execution on ensuing objective execution, through harmful oversight, dependent upon the level of result reliance, albeit these connections didn't arrive at traditional importance levels while controlling for earlier genuine execution (Walter, Lam, Van Der Vegt, Huang, & Miao, 2015). Consequently a study held in



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

2020 states that the influence of abusive supervision was consolidated by HPWSs which followed up to subordinate silence, this effect of HPWSs was actually moderation and such directing impact of HPWSs was represented by representatives' authoritative responsibility and expectation to leave (Xu, Zhao, Xi, & Li, 2020).

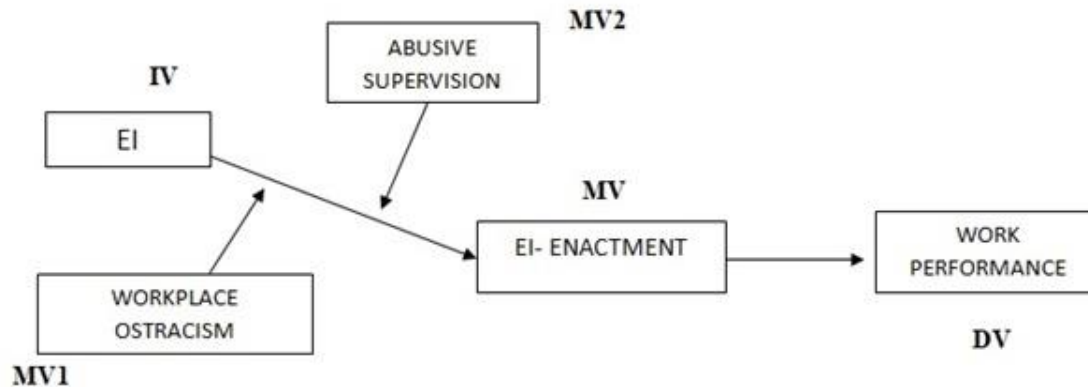
In a very recent research carried out in 2022 by the authors Zhanna Lyubykh, Jennifer Bozeman<sup>2</sup>, M. Sandy Hershcovis, Nick Turner, J. Valerie Shan have summed up the outcomes of data collected from 189 supervisor–employee respondents. The results showed that lower levels of chief assessed agent execution associated with manager uneven attributions to specialist unwavering quality, which in this manner achieved delegate evaluated severe oversight. They displayed that directly following adjusting to the benchmark level of agent uprightness, supervisors over attributed dreary appearance to laborer dependability and a short time later partook in additional huge degrees of harsh approaches to acting (Lyubykh, Bozeman, Hershcovis, Turner, & Shan, 2022). This discussion formulates the hypothesis as under.

**H4: Abusive Supervision moderates the indirect relationship of Emotional Intelligence with Work Performance via EI-enactment**

The theory upon which the whole model is based is the whole trait theory. According the whole trait theory, it is proposed that traits vary in their enactments (Prentice et al., 2019), by practices of workplace ostracism and abusive supervision within the organizational structures has posed to be a threat for an employee's need for belongingness, their capability to control their emotional fluctuations as well as the ability of employees to successfully implement practices of EI-enactment. Whole trait theory makes it convincing that when employees are confronted to ostracism and abusive supervision, their emotional strength and ability to utilize it should be disempowered. Under the luminosity of whole trait theory, concept that hinders employee's emotional intelligence implementation in social environments in which people tend to live and survive actually threaten the requirement for affiliation or social desire of belongingness (Ma et al., 2022). EI in a person's density distribution of EI enactment actually refers to the extent to which the employees can put their trait enactment into best utilization in a given surrounding. Thus the theory highlights immense amount of individual-to-individual variations in trait enactment (Prentice et al., 2019). This theory also proves that emotional intelligence enactment can be impeded by motivational and social-cognitive hinderers and can also be a limiting condition in relation between EI and EI- enactment.



**Framework Diagram/Model**



**Figure 11 Proposed Model of the study**

Figure 1 is representing the framework of the study which is suggested by the researcher and is based upon the prior literature, having a strong theoretical background. This model consists of an Independent variable - Emotional Intelligence abbreviated as EI, a dependent variable – Work Performance (WP), a mediating variable – Emotional Intelligence Enactment (EIE), a moderator – Workplace Ostracism (WO) and the novelty which the researcher has inculcated in the theoretical model is a new moderating variable – Abusive Supervision (AS) which has not been studied to depth in any of the new aspects and dimensions according to the knowledge and research the researcher has undergone. In this study, the researcher will test the impact and relationships of the new moderator and aims to bring forward undeveloped semblances in a completely new model, with new analysis techniques, in the contemporary context of geographical boundaries as well as the beneficiaries which are employees. The researcher in this model will try to broach the unsupported, unidentified and combative confederation which has unlikely taken place in most of the inquiries stewarded in the past. Majority of the probations seek forward to positive impact of mistreatments only a few ones are in contrast with the study aim of this researcher.

**Research Methodology**

This researcher has conducted this study in the context of Pakistan. The nature of this study is explanatory as this study deals with testing the underpinning theory, ‘Whole Trait Theory’ on a new set of data in a new geographical boundary and is empirically investigated. The methodology of the study is quantitative and it follows deductive approach. The school of thought is in accordance with this empirical approach is objectivity, which is followed by realism, positivism, determinism and nomothetic method in the context of assumptions. The purpose to conduct this investigatory research is to add to the





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

knowledge and literature of the variables emotional intelligence, ostracism and abusive supervision. To further explore the field and to collect in-depth information is the core objective of the study. Cross sectional data collection protocol has been used by the researcher in this research, the data is collected in a single shot of time period. The beneficiary for this study is the employees associated to different sectors of Punjab i.e. educational, manufacturing, health including schools, organizations and others. In order to overcome a limitation of a study done by Jie Ma, Zhiliang Zeng and Ke Fang in 2022, referred as the base study for this research, the results of which were only generalizable to service employees, this measure has been taken by the researcher.

### **Research Instruments and Measures**

Survey instrument that the researcher has used in this study is the questionnaire for primary data collection, which consisted of seven sections. The first section was a brief introduction of the researcher himself. The second section consisted of the demographics of the respondents. Section three to seven comprised of the items related to the variables. The measures used in the respective study by the researcher are adopted. The researcher has used 5 point likert scale from 1 (strongly disagree) to 5 (strongly agree) to operationalize the variables. No reverse questions were added. *Emotional intelligence* was assessed using the (Wong & Law, 2002) 16-item Emotional Intelligence Scale (WLEIS) (e.g., “I am able to control my temper and handle difficulties rationally”) out of which 5 items were taken for the respondents to answer. Assessment of variable *Workplace Ostracism* was done by using 9 items from (Ferris, Brown, Berry, & Lian, 2008) out of which 5 most suitable items were extracted (e.g., “Others ignored me at work). The variable *Emotional Intelligence-Enactment* was measured using (Pekaar, van der Linden, Bakker, & Born, 2017) 8 items from the WLEIS scale (e.g., “I really understand what I feel”). *Work Performance* was estimated using (Liao & Chuang, 2004) scale (e.g “I am able to fulfill all my responsibilities”). *Abusive Supervision* was measured using scale of (Harris et al., 2007) using 4 items out of the scale (e.g., “My boss/supervisor tells me my thoughts or feelings are stupid”).

### **Sampling, Data collection and analysis**

The sample consists of 350 employees from heterogeneous sectors from the province Punjab in Pakistan. The sample of 350 was selected keeping in view the reference of (Kline, 2015) who was clear about the fact that to run SEM sample size must be large. He referred 100 as small, 200 as medium and more than 300 as appropriate sample size to carry out complex model analysis whereas the technique used for sampling was non-probability sampling i.e. convenience sampling. The participants were sent online questionnaires using social platforms, links and references.. For conducting data analysis, SPSS 21 was used for initial testing for the reason that SPSS is no doubt the most reliable software for initial screening and for testing normality of data i.e. outliers etc and AMOS is preferred for hypothesis testing because AMOS is the software in which the complete model including all the independent variables, dependent and intervening variables can be run in the first go. The software also depicts model fit, CFA and other validity tests very easily as compared to any other software. Modeling used in this research is Structured Equation Modeling (SEM). Analysis undertaken by the researcher for the study is Path Analysis, Confirmatory Factor Analysis and Tests of normality including kurtosis, skewness, Shapiro-Wilk test and KS test are also conducted to enhance accuracy of data collected. The researcher



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

conducted reliability analysis through SPSS and calculated value of alpha and then performed descriptive statistical analysis to verify the normality of data with the help of kurtosis & value of skewness. Analytical tests namely Confirmatory factor analysis, path analysis and structure equation modelling has been carried out in order to study model fitness, validity and reliability of items and to unleash the direct and indirect association between the variables.

### **Demographics**

350 online questionnaires were floated among employees of various institutes and organizations. The medium preferred for distribution of online questionnaires was Whatsapp, Facebook social groups and emails. The response rate of the participants was 85.7% as out of 350 responses only 300 were retrieved as some of the responses which were not marked rationally or which were not filled completely were discarded. Some responses were also discarded due to missing values and for responses being not recorded correctly. 63.1% were females and 36.9% were males who filled in the questionnaires. In terms of age group of the employees the majority belonged to age group 20-30 years which makes 86.6% of total respondents whereas 9.6% of the employees were near the age of 40. 61.5% of the respondents were under-graduate, 31% post-graduate and only 7.5% hit PhD and higher education.

### **Results and Discussion**

After the reliability analysis was done in SPSS, the data was claimed to be reliable as the reliability indicator, cronbach alpha value for all the variables EI, EIE, WO, AS & WP is above 0.70. This is a clear indication that the data is reliable. The next step of the researcher was to check the normality of the data using values of kurtosis and skewness. All variables had normal distribution as the values fell between the range +1.96 & -1.96. The second benchmark of normality gets tick checked here. The execution of analysis was then followed by conducting Bivariate Correlation Analysis via SPSS to attain values of correlation. Table 1 is given as the showcase of correlation values among the variables.

Table 1 summarizes descriptive statistics for the variables incorporated in the research model. The descriptive statistics is calculated collectively as the table shows. N in the table is no of sample which is 300, the means ranges from 2.01 to 3.8 while the value of standard deviation fluctuates between 0.44 – 0.7.5. It is evident from the values of Skewness and Kurtosis, which lie within the threshold range of +.96 - -1.96 reflecting that the data collected from the respondents is normally distributed. Based upon the discussion above, it can be concluded that the data collected to conduct this study is appropriate and well suited for any other further tests. (Kim, 2013)



**7TH CBIBM  
2022**



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table I**

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
EI	288	2.40	5.00	3.7653	.53937	.032	.144	-.414	.286
EIE	300	1.75	5.00	3.8142	.61971	-.490	.141	.518	.281
WO	300	1.00	5.00	2.6227	.73790	.338	.141	.258	.281
AS	298	1.00	4.00	2.0159	.75793	.549	.141	.029	.281
WP	287	2.40	4.60	3.5519	.44288	-.394	.144	.048	.287
Valid N (listwise)	277								

Bivariate correlation Table 2 shows correlation among the variables EI, EIE, WO, AS and WP. The significance is Two-Tailed where \*\* shows significant correlation at 0.01 level and \* shows correlation being significant at the level of 0.05. Following table shows that EI (Emotional intelligence) is highly significantly correlated to EIE, the correlation coefficient shows that a unit change in EI will result into 50 units change in EIE, 1 unit increase in EI will cause WO to decrease by 8% showing negative correlation with WO (Workplace Ostracism), significantly correlated to AS (abusive supervision) a unit incline in EI will result into 28 units decline in AS. Similarly as high significant correlation exists between EI and WP (work performance), unit increase in EI will lead to 32.4% rise in WP. Such relationships can be studied with the help of the table given below where EIE is significantly correlated with EI, AS and WP, being the moderator, has a significant relationship with AS and WP, AS being significantly correlated to EI, EIE, WO and WO shows no such significant relationship with any of the contextual variables.

**Table II**

Correlations

	EI	EIE	WO	AS	WP
EI	Pearson Correlation 1	.500**	-.089	-.283**	.324**
	Sig. (2-tailed)	.000	.123	.000	.000
	N	300	300	300	300
EIE	Pearson Correlation .500**	1	-.105	-.302**	.216**
	Sig. (2-tailed)	.000	.069	.000	.000
	N	300	300	300	300
WO	Pearson Correlation -.089	-.105	1	.312**	-.132*
	Sig. (2-tailed)	.123	.069	.000	.022
	N	300	300	300	300
AS	Pearson Correlation -.283**	-.302**	.312**	1	-.109
	Sig. (2-tailed)	.000	.000	.000	.058
	N	300	300	300	300
WP	Pearson Correlation .324**	.216**	-.132*	-.109	1
	Sig. (2-tailed)	.000	.000	.022	.058
	N	300	300	300	300

Note: \*\*. Correlation is significant at the 0.01 level (2-tailed)

\*. Correlation is significant at the 0.05 level (2-tailed)

After the researcher has carried out initial screening of the data through SPSS and has conducted basic statistical analysis namely Descriptive and Bivariate Correlation representing the association and significance among variables that the researcher intends to test and analyze, the researcher moves forward to the second phase of analytics which involves AMOS software. In order to test Model validity and fitness of the framework the researcher has proposed, the researcher performs Confirmatory Factor Analysis. Following is the Table 3 which exhibits the standard values of model fit indicators CMIN/DF=2.317, CFI=0.903, IFI=0.905, GFI=0.886, RMSEA=0.068. All of the above numerics are subject to evidence that the model put forth by the researcher bears fitness which is the approval that the model is befitted to undergo SEM and Path analysis.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

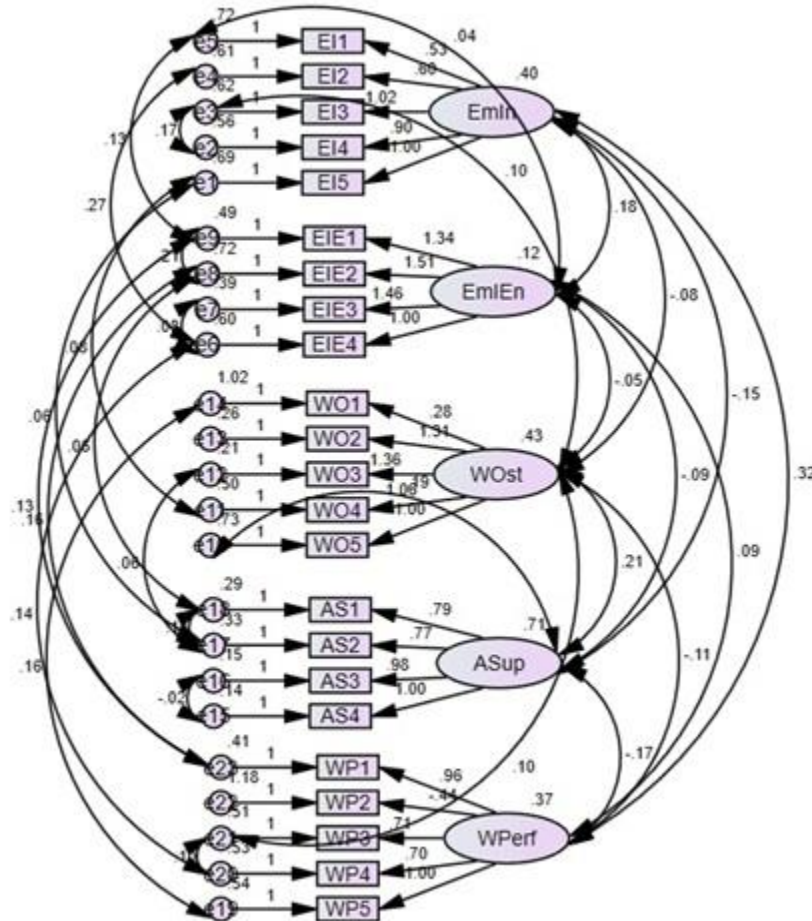
**Table III**

**Model fit Indicator Values**

Indicators	Threshold Value	Actual Value
CMIN/DF	3 or < 3	2.317
CFI	0.9 or > 0.9	0.903
IFI	0.9 or > 0.9	0.905
GFI	Must be > 0.8	0.886
RMSEA	< 0.08	0.068

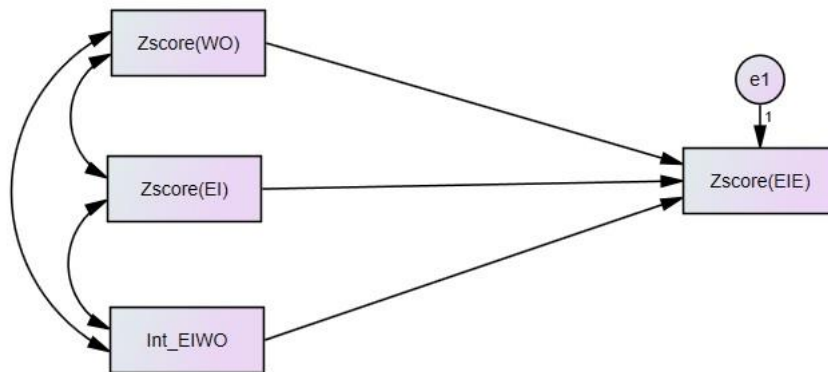
Figure 2 is the representation of CFA model from which the results of Table 3 Model fit, have been extracted.



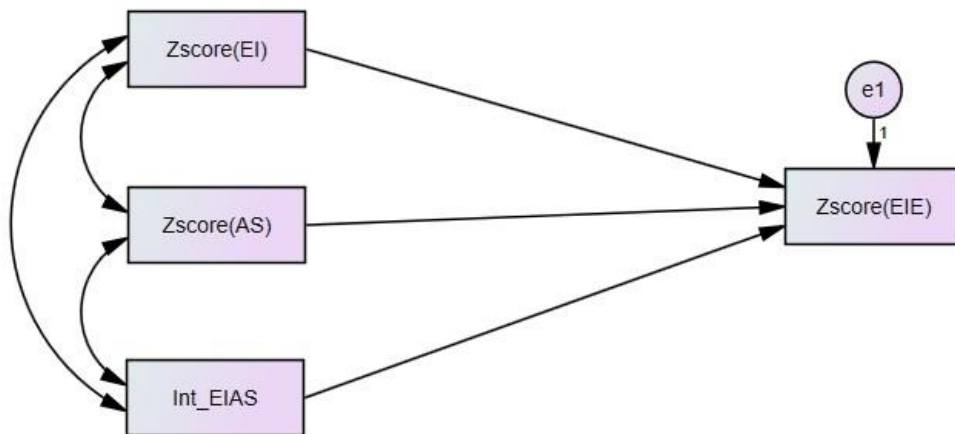


**Figure 12 Confirmatory Factor Analysis –AMOS**

The model consists of Latent variables EmIn (Emotional Intelligence) EmIEn (Emotional Intelligence Enactment) WOst (Workplace Ostracism) ASup (Abusive Supervision) and WPerf (Work Performance). The constructs of each variable are given as measured/observed variables followed by error terms. Figure 3 and 4 is the delineation of the Path Diagrams used in AMOS-SEM for the structuring of moderation tests with the moderator Workplace Ostracism in Figure 3 and Abusive Supervision as in Figure 4. The values given on the association arrows show the effect of the variable on the computed Z score of EIE in the first figure and similarly in the diagram below.



**Figure 13 Path Diagram – WO**



**Figure 14 Path Diagram – AS**

Table 4 and 5 are given in respect to the Path Estimates for moderation analysis. Standardize Direct Effects of both the moderators are given in Table 4. The negative sign shows the negative impact of moderators on the respective variable EI. 0.089 is the magnitude with which the moderator WO influences EI. In the same manner, AS adverse effect is observed as there is a negative value associated with the value of magnitude which is 0.283. These values hold the evidence that both moderators are negatively striking other variables in the context. Table 5 characterizes the estimates and P values for the linkage of moderators and the variables as follows.

**Table IV**



	EI	WO	AS	EIE
WO	-.089	.000	.000	.000
AS	-.283	.000	.000	.000

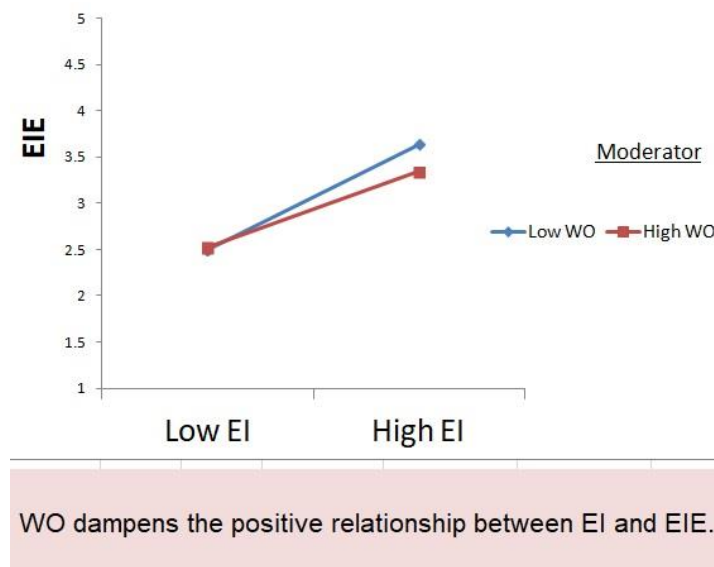
**Table V**  
Standardized Regression Weights

Parameter	Estimate	P value
ZEIE<--- ZWO	-.070	.050
ZEIE<--- ZEI	.493	.009
ZEIE<--- Int_EIWO	-.078	.013
ZEIE<--- ZEI	.450	.007
ZEIE<--- ZAS	-.175	.009
ZEIE<--- Int_EIAS	-.100	.041

The results are consistent to the outcome of H1 that Workplace Ostracism moderates the relationship between Emotional intelligence and Emotional Intelligence-enactment which is hypothesis H1, is also coinciding with RO1 which aims at unfolding the relationship of moderator WO, the mediator, EIE and the independent variable EI . The results are clear to reveal that workplace ostracism leaves a negative impact to the relationship of EI and EI enactment which can clearly be identified in the first row of Table 5 which portrays the negative value of WO on EI. The estimate value also shows the intensity factor with the effect is taking place. The value observed in the table is -0.070 and the P value which is 0.050 shows that the relationship is significant as the P value < 0.05 proving the essentiality of the ligature. The interaction term EIWO has a P value of 0.013 which proves that the combined effect of independent and moderating variable on the dependent variable is significant. Figure 5 given has slightly different results in terms of intensity and magnitude of the effect of the moderator as given in the study of (Ma et al., 2022) in which the weakening effect of WO as the moderator is very ostensible. It confines to the statement that in presence of High WO, shifting of Emotional intelligence from low to high makes negligible difference in the enforcement of its capability as a personality trait. In the graphical representation of the author of this study, it is to be notified that doubtlessly the dampening aftermath of the moderator is observed but still there is enactment of EI in presence of high WO but at a decreased rate in comparison to the presence of low WO. This variation of the result can be due to incomparable mindsets of people as employees with a totally new cultural context cannot be overlooked. This hypothesis significantly relates to the research objectives stated by the researcher which are successfully fulfilled by the study i.e. highlighting the relationship among the variables, studying and unfolding the impact of one variable to another variable as well as revealing the impact of abusive supervision and ostracism on reaction behavior of employees within a working institution. However the aftermath of the

investigation is not surprising as the results do meet researcher’s expectations. It was observed that when people within organizations confronted ostracism, it led to a reverse effect of behavior. It forced people to act less efficient and less remarkable compromising on their positions in the organizations leading to agony, agitation and less motivation towards creativity and productivity. It lead to low ratio of renowned identification within the social groups, making them feel low esteemed and less motivated. The results are similar to the studies done by (Mayer & Salovey, 1997), (Prentice et al., 2019), (Baumeister et al., 2002), (L. Z. Wu et al., 2012), (Zhang & Shi, 2017) and (Ma et al., 2022) which have found a negative association between the contextual variables.

The Figure 5 given is the empirical evidence that supports Workplace Ostracism as the moderator adversely affecting the affinity which Emotional Intelligence and Emotional Intelligence Enactment holds. The blue line indicates the linkage of EI and EIE in presence of low workplace ostracism. The results show that when ostracism is low, increase in EI does show a drastic enhancement in EI enactment but the red line, which shows high ostracism, reveals that under the influence of high workplace ostracism, the drift from low to high EI doesn’t show any drastic increase in Emotional intelligence enactment capability. It is evident from the fact that emotional intelligence enactment is suppressed under the existence of ostracism. This graphical representation applauses the adverse effect that ostracism beholds for personnel working under restrictive conditions, isolation from social groups, exclusion from gatherings and an underlying condition in which an employee questions his own existence in a community of many. WO being the moderator/catalyst in the proposed model has laid the basis of its inimical impact where emotional intelligence enactment has weakened and eventually the work performance has also repudiated. This relationship has unfolded the weaker side of emotional intelligence.



**Figure 15** Moderating effect of WO on the association between EI and EIE

The hypothesis H2 has been supported with the literature as well as the results because the researcher has undergone investigative study. It says that workplace ostracism significantly directly subsidizes the





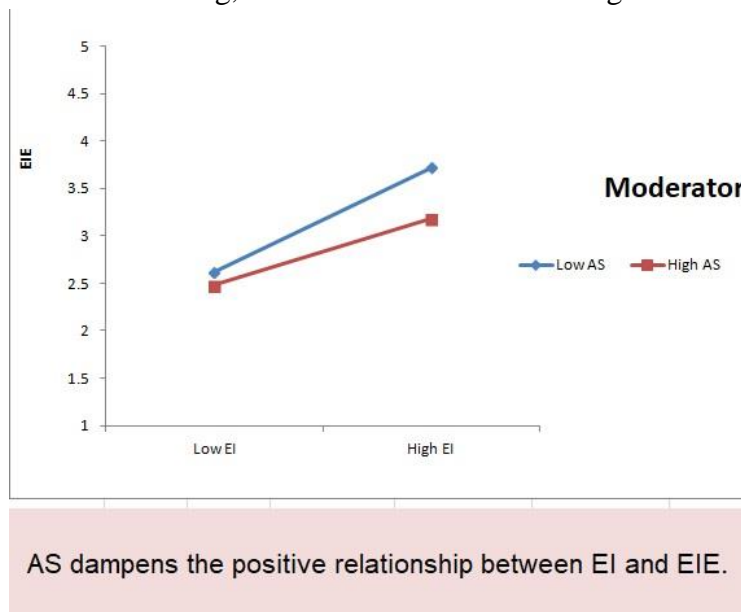
Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

relationship of EI with Work effectiveness through a mediator, EI-enactment which means that workplace ostracism negatively impacts trait enactment which in turn decreases the work efficiency among the employees resulting into low level of work productivity. This hypothesis is coherent with the research objective RO2 of this study such as bringing forward the factors or the contributors which plays their part in making an employee emotionally weak and to unfold the effects of mediators and moderators on the dependent and independent variables which are EI and EIE. These results are coherent with the studies done by (Jahanzeb et al., 2020), (Xia et al., 2019), (Yang, 2012) and (Lustenberger & Jagacinski, 2010) highlighting significant indirect and adverse effect of WO on the dependent variable. Hypothesis H3 is coherent with RO3 of this study and is also accepted as Abusive Supervision significantly intermediates the relationship between Emotional Intelligence and EI-enactment and is interacting antagonistically. The value of estimates given row 6 and column 2 of the Table 5 follows a negative sign (-0.175) from which the negative moderating effect of AS is evident. The P value also establishes the significance of the variables as the value is less than 0.05 ( $0.009 < 0.05$ ). The combined effect shown by the interaction term EIAS has a P value of 0.041 which is lesser than 0.05, the threshold indicator, and therefore means that the effect interaction term holds onto the dependent variable is significant as well. However, the graphical representation of the moderator AS given in Figure 6 shows the enfeebling precipitate on the association of EI and EIE as under the effect of low AS there is higher implementation of EI as compared to the presence of high AS where there's still enactment of EI but at a very minor rate. The dampening effect gets accepted here. Culture, human psyche and personality differences might be a cause of diversifying results. The prior studies mentioned in the literature section doubtlessly share correspondence with the investigation administered by the researcher as stated in research work of (Abbas et al., 2021), (Atwater et al., 2016), (Hu, 2012), (Harris et al., 2007) and (Yu et al., 2018). It profoundly delineates to the conclusion that Abusive Supervision, not only being a dominating workplace maltreat, is also a very powerful and influential moderator which has noticeably created a de-escalated association among EI and EIE. It is very clear from the representative lines that moving from low EI to high EI in presence of high AS shows almost no change, but under the effect of low AS there is a noticeable drift while moving from low to high EI which means under influence of low Abusive supervision, there is a chance that employees can still implement emotional intelligence but not likely in the case of high abusive supervision. If the leader, supervisor, invigilator and the boss of the house does not endeavor efforts, creativity, little achievements and minor progress made by the employees it would naturally develop confused loyalty, high turnover ratio, low work output and less work propensity among workers of the institution. Following figure 3 shows the acceptance and relationship of variables under the presence of Abusive supervision as the moderator, which the researcher has carried out using SEM in AMOS.





**Figure 16** Moderating effect of AS on the association between EI and EIE

No doubt Abusive Supervision actually shatters the indirect relationship of Emotional Intelligence with Work Efficacy through EI-enactment as the intervening constant but as H3 was successfully proven to be true, this hypothesis also got accepted due to its relation and effect in hypothesis H3. So according to the results interpreted, the new moderator sets an unsupportive ladder between the variables emotional intelligence and work ingeniousness, and being consequent to RO4 which is clear to expound the relationship contribution of moderating variable AS in contrast to IV and DV of the model. However, these conclusive statements that the researcher has addressed might set off new boundaries for further exploration in the field of EI WO and AS. The researcher has accomplished the grip over experimenting a new variation in the model and doubtlessly the results are a substantiation that as compared to the work of (T.-Y. Wu & Hu, 2009), (Walter et al., 2015), (Xu et al., 2020) and (Lyubykh et al., 2022), the results do not deviate and are strongly affirmed.

**Conclusion**

Below is the summary of the results is given in tabular form.



**Table VI**

Result Summary

Serial No.	Hypotheses	Result
H1	Workplace Ostracism moderates the relationship between Emotional intelligence and Emotional Intelligence-enactment	Supported
H2	Workplace Ostracism moderates the indirect relationship of EI with Work Performance via EI-enactment	Supported
H3	Abusive Supervision moderates the relationship between Emotional Intelligence and EI-enactment	Supported
H4	Abusive Supervision moderates the indirect relationship of Emotional Intelligence with Work Performance via EI-enactment	Supported

5.1 Contributions of the study

This study has made several contributions in the field of ostracism, emotional intelligence and abusive supervision towards this piece of research. Firstly the researcher has conducted this study in new geographical boundary which is Islamic Republic of Pakistan. Secondly the researcher has tried to overcome the limitation of the results being only applicable to services sector/ employees. In the last study the data was collected from only sales staff of a retail sales center whereas in this study the researcher has managed to approach maximum no of sectors and has reached almost employees of all major sectors including health, education, services, manufacturing etc in the province of Punjab. The researcher has used AMOS and SPSS instead of Mplus 7.1 and SEM in place of multi level modeling.

This study tends to inculcate a sense in people in terms of mentioning practical contribution, that how the boundaries and limits to trait enactment exits and how can employees be trained and tackled to produce their utmost outcomes in terms of their work management and its execution as Emotional Intelligence has become a standard for recruitment of competent personnel. It also deals with overcoming boundaries and limits, for people making survival in an environment and culture like as in Pakistan, to social mistreatments like ostracism, abusive supervision etc. In regard of theoretical contribution, this study has unfolded significant linkages between newly introduced variables as the researcher has introduced a new moderator in the existing framework which is abusive supervision. The researcher has successfully demonstrated the relationships and cause and effect terms of variables as well as how one variable moves in effect to another variable. New techniques, tools and softwares have been diligently used by the researcher. AMOS is used for hypothesis testing, SPSS 21 is used for initial testing of collected data from respondents, online social media platforms are used for distribution of questionnaires and for approaching the participants as well. Structural Equation Modeling/path modeling is used for running certain required tests by the researcher. Convenience sampling is used in this research work in order to shortlist the beneficiaries.

5.2 Limitations and Future directions



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Being a naive and inexperienced researcher this work lacks in quite much portions as compared to other researcher's work. This study has only targeted employees related to services sector which has limited its external validity of the findings. Future studies can try approaching all other sectors of employees in other provinces of Pakistan and can compare results within different cultural boundaries for making results more generalized and implementable. Findings of this study don't support casual inferences. It is also very accomplishing if other workplace mistreatments are put into comparison within the model. The sample size of this study is adequate but if extended with diverse nature of sectors as well as the employees, it can produce much interesting results for sure increasing the authenticity of the work. Potential research work can also be done by using both qualitative data collection techniques along with quantitative.

## References

- Abbas, Mirza Waseem, Ali, M, & Dost, Iqra Amin M Khyzer Bin. (2021). Impact of Abusive Supervision on Emotional Exhaustion, Counterproductive Work Behaviours and Intention to Quit: Moderating Role of Emotional Intelligence. *Multicultural Education*, 7(8). doi: 10.5281/zenodo.5172958
- Anjum, Muhammad Adeel, Liang, Dapeng, Durrani, Dilawar Khan, & Parvez, Anjum. (2020). Workplace mistreatment and emotional exhaustion: The interaction effects of self-compassion. *Current Psychology*, 1-12. doi: <https://doi.org/10.1007/s12144-020-00673-9>
- Atwater, Leanne, Kim, Kyoung Yong, Witt, Alan, Latheef, Zahir, Callison, Kori, Elkins, Teri J, & Zheng, Dianhan. (2016). Reactions to abusive supervision: Examining the roles of emotions and gender in the USA. *The International Journal of Human Resource Management*, 27(16), 1874-1899. doi: <https://doi.org/10.1080/09585192.2015.1088887>
- Baumeister, Roy F, Twenge, Jean M, & Nuss, Christopher K. (2002). Effects of social exclusion on cognitive processes: anticipated aloneness reduces intelligent thought. *Journal of personality and social psychology*, 83(4), 817.
- Cameron, Kim S, & Spreitzer, Gretchen M. (2012). *The Oxford handbook of positive organizational scholarship*: OUP USA.
- Chung, Yang Woon. (2018). Workplace ostracism and workplace behaviors: A moderated mediation model of perceived stress and psychological empowerment. *Anxiety, Stress, & Coping*, 31(3), 304-317.
- Côté, Stéphane, & Miners, Christopher TH. (2006). Emotional intelligence, cognitive intelligence, and job performance. *Administrative science quarterly*, 51(1), 1-28.
- De Clercq, Dirk, Haq, Inam Ul, & Azeem, Muhammad Umer. (2018). Workplace ostracism and job performance: roles of self-efficacy and job level. *Personnel Review*.
- Ferris, D Lance, Brown, Douglas J, Berry, Joseph W, & Lian, Huiwen. (2008). The development and validation of the Workplace Ostracism Scale. *Journal of applied psychology*, 93(6), 1348.
- Ferris, D Lance, Lian, Huiwen, Brown, Douglas J, & Morrison, Rachel. (2015). Ostracism, self-esteem, and job performance: When do we self-verify and when do we self-enhance? *Academy of management journal*, 58(1), 279-297.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Fiset, John, Robinson, Melanie A, & Saffie-Robertson, Ma Carolina. (2019). Masking wrongs through brilliance: the moderating effect of vision on the relationship between abusive supervision and employee outcomes. *European Journal of Work and Organizational Psychology*, 28(6), 756-768.

Fleeson, William, & Jayawickreme, Eranda. (2015). Whole trait theory. *Journal of research in personality*, 56, 82-92.

Harris, Kenneth J, Kacmar, K Michele, & Zivnuska, Suzanne. (2007). An investigation of abusive supervision as a predictor of performance and the meaning of work as a moderator of the relationship. *The leadership quarterly*, 18(3), 252-263.

Herscovis, M Sandy. (2011). "Incivility, social undermining, bullying... oh my!": A call to reconcile constructs within workplace aggression research. *Journal of organizational behavior*, 32(3), 499-519.

Howard, Larry W, & Cordes, Cynthia L. (2010). Flight from unfairness: Effects of perceived injustice on emotional exhaustion and employee withdrawal. *Journal of Business and Psychology*, 25(3), 409-428.

Hu, Hsiu-Hua. (2012). The influence of employee emotional intelligence on coping with supervisor abuse in a banking context. *Social Behavior and Personality: an international journal*, 40(5), 863-874.

Jahanzeb, Sadia, Fatima, Tasneem, Javed, Basharat, & Giles, Julie Pitcher. (2020). Can mindfulness overcome the effects of workplace ostracism on job performance? *The Journal of Social Psychology*, 160(5), 589-602.

Khan, Shahid N. (2014). Impact of Hofstede's cultural dimensions on subordinate's perception of abusive supervision. *International Journal of Business and Management*, 9(12), 239.

Kim, Hae-Young. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative dentistry & endodontics*, 38(1), 52-54.

Kline, Rex B. (2015). *Principles and practice of structural equation modeling*: Guilford publications.

Liao, Hui, & Chuang, Aichia. (2004). A multilevel investigation of factors influencing employee service performance and customer outcomes. *Academy of Management journal*, 47(1), 41-58.

Lim, Pang Kiam, Koay, Kian Yeik, & Chong, Wei Ying. (2020). The effects of abusive supervision, emotional exhaustion and organizational commitment on cyberloafing: a moderated-mediation examination. *Internet Research*.

Lustenberger, Donald E, & Jagacinski, Carolyn M. (2010). Exploring the effects of ostracism on performance and intrinsic motivation. *Human Performance*, 23(4), 283-304.

Lyubkyh, Zhanna, Bozeman, Jennifer, Herscovis, M Sandy, Turner, Nick, & Shan, J Valerie. (2022). Employee performance and abusive supervision: The role of supervisor over-attributions. *Journal of Organizational Behavior*, 43(1), 125-145.

Ma, Jie, Zeng, Zhiliang, & Fang, Ke. (2022). Emotionally savvy employees fail to enact emotional intelligence when ostracized. *Personality and Individual Differences*, 185, 111250.

Mayer, John D, & Salovey, Peter. (1997). What is emotional intelligence? Emotional development and emotional intelligence: Implications for educators. *New York: Basic Book. PP*, 3-31.

Munir, Muhammad, & Azam, Rauf I. (2017). Emotional intelligence and employee performance: An intervention based experimental study. *Journal of Business & Economics*, 9(2), 1-19.

Pekaar, Keri A, van der Linden, Dimitri, Bakker, Arnold B, & Born, Marise Ph. (2017). Emotional intelligence and job performance: The role of enactment and focus on others' emotions. *Human Performance*, 30(2-3), 135-153.





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Prentice, Mike, Jayawickreme, Eranda, & Fleeson, William. (2019). Integrating whole trait theory and self-determination theory. *Journal of personality*, 87(1), 56-69.
- Richard, Orlando C, Boncoeur, O Dorian, Chen, Hao, & Ford, David L. (2020). Supervisor abuse effects on subordinate turnover intentions and subsequent interpersonal aggression: The role of power-distance orientation and perceived human resource support climate. *Journal of Business Ethics*, 164(3), 549-563.
- Sommer, Kristin L, Williams, Kipling D, Ciarocco, Natalie J, & Baumeister, Roy F. (2001). When silence speaks louder than words: Explorations into the intrapsychic and interpersonal consequences of social ostracism. *Basic and Applied Social Psychology*, 23(4), 225-243.
- Tepper, Bennett J. (2000). Consequences of abusive supervision. *Academy of management journal*, 43(2), 178-190.
- Walter, Frank, Lam, Catherine K, Van Der Vegt, Gerben S, Huang, Xu, & Miao, Qing. (2015). Abusive supervision and subordinate performance: Instrumentality considerations in the emergence and consequences of abusive supervision. *Journal of Applied Psychology*, 100(4), 1056.
- Williams, Kipling D. (2009). Ostracism: A temporal need-threat model. *Advances in experimental social psychology*, 41, 275-314.
- Wong, Chi-Sum, & Law, Kenneth S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The leadership quarterly*, 13(3), 243-274.
- Wu, Long-Zeng, Yim, Frederick Hong-kit, Kwan, Ho Kwong, & Zhang, Xiaomeng. (2012). Coping with workplace ostracism: The roles of ingratiation and political skill in employee psychological distress. *Journal of management studies*, 49(1), 178-199.
- Wu, Tsung-Yu, & Hu, Changya. (2009). Abusive supervision and employee emotional exhaustion: Dispositional antecedents and boundaries. *Group & Organization Management*, 34(2), 143-169.
- Xia, Aijing, Wang, Bin, Song, Baihe, Zhang, Wei, & Qian, Jing. (2019). How and when workplace ostracism influences task performance: Through the lens of conservation of resource theory. *Human Resource Management Journal*, 29(3), 353-370.
- Xu, Qin, Zhao, Yixuan, Xi, Meng, & Li, Fangjun. (2020). Abusive supervision, high-performance work systems, and subordinate silence. *Personnel Review*.
- Yang, Jun. (2012). *Workplace ostracism and performance related outcomes: A process model incorporating social influence and social identity theories*: State University of New York at Buffalo.
- Yu, Lingtao, Duffy, Michelle K, & Tepper, Bennett J. (2018). Consequences of downward envy: A model of self-esteem threat, abusive supervision, and supervisory leader self-improvement. *Academy of Management Journal*, 61(6), 2296-2318.
- Zhang, Suchuan, & Shi, Qiao. (2017). The relationship between subjective well-being and workplace ostracism: The moderating role of emotional intelligence. *Journal of Organizational Change Management*.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Wrongdoers Continued Making Mouths at Champions of Corporate Governance right since  
Emergence of Corporations: A Challenge for 21st Century Researchers**

Dr. Tehmina Fiaz Qazi

University of the Punjab, Lahore

Dr. Abdul Aziz Khan Niazi

University of Engineering and Technology, Kala Shah Kaku

Ifra Aziz Khan Niazi

University of Central Punjab, Lahore

The question is: Why the concept of criminal proceedings, particularly corporate death sentence, are not introduced against ‘the companies subject to heinous crimes’.

Over decades of experience as student and teachers of corporate law/corporate governance, and practitioners in corporations, it is learnt that the companies evolved as pseudo natural persons over centuries (Fan et al., 2022). These pseudo natural persons are coined for the wake of business continuity/perpetuity, supporting mass production and making the machine production a success story. In this context, literally utmost effort has been made to create into it as many features of natural persons as possible.

It is artificially endowed by life, existence, right of ownership, citizenship, social responsibility, behavior, sue and/or ensued, impression (thumb impression), signature, role of leadership and so on by its godfathers (Gyimah et al., 2021). This beloved offspring of its promoters eroded human rights from all the foresides over the period of time. It not only diluted the rights of natural persons but also availed fine escapes from punishment on its criminal activities. History of a company over centuries is full of the examples of its escape from punishment on crimes. To iterate for example:

Qintex (1989)

HIH Insurance (2001)

One.Tel (2001)

Bankwest (2008) and Dick Smith (2016) of Australia

Dutch East India Company (1799) of Batavian Republic

Bre-X (1997)

Livent (1998)

CINAR (2001)

Nortel (2009) of Canada

China Medical Technologies (CMED) (2012) of Cayman Islands

Medici Bank (1494) of Florence



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Mississippi Company (1720) of France

Friedrich Krupp (1873)

Danatbank (1931)

FlowTex (2000)

Arcandor (2009)

Hypo Real Estate (2009)

Schlecker (2012)

Wirecard (2020) of Germany

South Sea Company (1720) of Great Britain

Carrian Group (1983) of Hong Kong

Anglo Irish Bank (2009) of Ireland

Parmalat (2003) of Italy

ABN-Amro (2008) of Netherlands

Banco Espírito Santo (2014) of Portugal

Nordbanken (1991) of Sweden

Swissair (2001) of Switzerland

Overend, Gurney & Co (1866)

Polly Peck (1990)

Bank of Credit & Commerce International (1991)

Barings Bank (1995)

Equitable Life Assurance Society (2000)

MG Rover Group (2005)

Northern Rock (2008)

Royal Bank of Scotland Group (2008) of United Kingdom

Allied Crude Vegetable Oil Refining Corp (1963)

Texaco (1987)

Lincoln Savings and Loan Association (1989)

Long-Term Capital Management (1998)

Pacific Gas & Electric Company (2001)

Enron (2001)

Chiquita Brands Int (2001)



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Kmart (2002)

Adelphia Communications (2002)

Arthur Andersen (2002)

WorldCom (2002)

Bayou Hedge Fund Group (2005)

Refco (2005)

Bear Stearns (2008)

IndyMac (2008)

Lehman Brothers (2008)

AIG (2008)

Washington Mutual (2008)

Bernard L. Madoff Investment Securities (2008)

Dynegy (2012)

Theranos (2018) of United States of America

Herstatt Bank (1974) of West Germany

are world known documented financial scams that eaten up trillions of dollars (Barnes, 2017; Du et al., 2022; Giannetti & Wang, 2016; Kumar et al., 2020; Shakri et al., 2022).

Aforementioned cases are excerpted from literature as an example, there are much more cases that are reported/not-reported and/or documented/undocumented (Cole et al., 2021). This is not something attributable to certain regime and/or region, but it is prevalent since birth of this pseudo natural person namely company say from 1400 A. D. till today all over the world. It is not also attributable to certain sector but prevalent across the board to say animation, automobiles, aviation, banking, brokerage, electronics, textiles, energy, entertainment, food, health care, insurance, machinery, medical technology, mining, oil, real estate, retail, securities, steel, metals, telecommunication etc. and much more.

Apart from accounting and financial scams, there are many human related malfunctions/tragic crimes of companies (Hsu & Yang, 2022; Jory et al., 2015) e. g. human catastrophe of Bhopal (India) of Indian subsidiary company of the American firm Union Carbide Corporation; victimizing 300,000 babies through infant milk formula adulterated with melamine by Sanlu Group Co., Ltd., China, so on and so forth. To overcome malpractices in companies, lot of efforts surpassed at international level (say at the level of UN, OECD, Basel Committee, ILO), at national levels in many countries (say The Sarbanes-Oxley Act of 2002 of USA; Cadbury, Greenbury or Hampel reports of UK, Code of Corporate Governance Pakistan and Codes of Corporate Governance of almost all the countries of the world, etc.) and sectorial/individual company levels (Shahab et al.,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

2022). But scams continue and are still making mouths at the champions of corporate governance and the scams are less likely to stop.

Introducing the concept of corporate death sentence, inter alia, all other procedure devised to deal crimes may be helpful, but, *it is the grandest challenge*. The first fence for the protection of these pseudo persons are the champions of corporate governance themselves. Logic behind it is, since company has been introduced as a pseudo natural person having many features of natural person say: it exists in eyes of law, it can purchase, own, sell properties, it can sue, it can be sued, it can sign and make impression and much more, therefore, for its actions it should be responsible like individuals.

## References

- Barnes, P. (2017). Stock market scams, shell companies, penny shares, boiler rooms and cold calling: The UK experience. *International Journal of Law, Crime and Justice*, 48, 50-64.
- Cole, R., Johan, S., & Schweizer, D. (2021). Corporate failures: Declines, collapses, and scandals. *Journal of Corporate Finance*, 67, 101872.
- Du, S., Ma, L., & Li, Z. (2022). Non-family shareholder governance and corporate risk-taking: Evidence from Chinese family-controlled businesses. *Journal of Business Research*, 145, 156-170.
- Fan, R., Pan, J., Yu, M., & Gao, H. (2022). Corporate governance of controlling shareholders and labor employment decisions: Evidence from a parent board reform in China. *Economic Modelling*, 105753.
- Giannetti, M., & Wang, T. Y. (2016). Corporate scandals and household stock market participation. *The Journal of Finance*, 71(6), 2591-2636.
- Gyimah, D., Kwansa, N. A., Kyiu, A. K., & Sikochi, A. S. (2021). Multinationality and capital structure dynamics: A corporate governance explanation. *International Review of Financial Analysis*, 76, 101758.
- Hsu, Y. L., & Yang, Y. C. (2022). Corporate governance and financial reporting quality during the COVID-19 pandemic. *Finance Research Letters*, 102778.
- Jory, S. R., Ngo, T. N., Wang, D., & Saha, A. (2015). The market response to corporate scandals involving CEOs. *Applied Economics*, 47(17), 1723-1738.
- Kumar, R., Deb, S. G., & Mukherjee, S. (2020). Do words reveal the latent truth? Identifying communication patterns of corporate losers. *Journal of Behavioral and Experimental Finance*, 26, 100291.
- Shahab, Y., Gull, A. A., Rind, A. A., Sarang, A. A. A., & Ahsan, T. (2022). Do corporate governance mechanisms curb the anti-environmental behavior of firms worldwide? An illustration through waste management. *Journal of Environmental Management*, 310, 114707.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Shakri, I. H., Yong, J., & Xiang, E. (2022). Does compliance with corporate governance increase profitability? Evidence from an emerging economy: Pakistan. *Global Finance Journal*, 100716.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Drivers of Entrepreneurial Intentions Among Business Students in Lahore, Pakistan**

Nadia Hanif

University of Education, Lahore

Noman Arshed

University of Education, Lahore

Zeeshan Rafique

University of Education, Lahore

Syeda Tabinda Rubab

University of Lahore, Lahore

### **ABSTRACT**

According to research, entrepreneurial ambitions increase the likelihood of forming a business, but the Theory of Planned Conduct believes that intentions capture the motivational component of behavior and are dependent on behavioral, normative, and control beliefs. The purpose of this research is to identify the factors that impact entrepreneurial ambitions among Lahore business students. The SPSS software is used to model structural equations. The findings, which are consistent with the majority of Pakistani nations as well as global trends, highlight the relevance of entrepreneurship education, support systems, and a favorable business climate in influencing entrepreneurial ambitions.

**Keywords:** Entrepreneurship; entrepreneurial intentions; theory of planned behavior; business students; Pakistan, Lahore.

### **INTRODUCTION**

Over the last few decades, both academics and policymakers have become interested in entrepreneurship during the past few decades. The rising need for entrepreneurs who can spark economic growth by developing fresh ideas and turning them into successful businesses is the main cause of this problem. Entrepreneurial activities are not just cultivators of technical innovation; they also generate job opportunities and boost competitiveness.

In today's society, entrepreneurs perform an expanding variety of vital tasks in the generation of wealth. Examining entrepreneurial intention can help us better understand the capabilities of entrepreneurial action. Entrepreneurial intention is a mentality that guides people's awareness toward achieving a goal or something (Bird 1988). People who intend to start a business are quite likely to succeed in doing so (Ajzen 1991; Fishbein and Ajzen 1975); therefore, it is reasonable to conclude that examining entrepreneurial intention is an important approach to examining actual entrepreneurial behavior. Bird's version of entrepreneurial intuition is based on a cognitive psychology concept that attempts to explain or behave in a certain way. Intentions were conceived as a feature of ideals that provided a link between ideals and actual outcomes (Fishbein & Ajzen, 1975). That is, human attitudes toward the appearance of a given behaviour are formed primarily on ideals that the behaviour will result in positive outcomes, as well as normative ideals about the behavior. Behavioral purpose influences attitudes and becomes an immediate determinant of behaviour. This relationship is illustrated by Fishbein and Ajzen (1975) as



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

follows: Beliefs—> Attitudes—> Intentions by Fishbein and Ajzen (1975) as follows: Beliefs—> Attitudes—> Intentions—> Behavior. Bird (1988) proposes a framework that concentrates on the conscientious and intentional act of creating new challenges. Entrepreneurial intention, or the state of consciousness that instructs and advises the entrepreneur's actions nearer to the advancement and implementation of the business concept, bureaucracy, and the concept of this framework'. This viewpoint is process-oriented, focusing on the complex relationships between entrepreneurial thoughts and the outcomes of those thoughts. Thompson (2009, p. 676) describes entrepreneurs' ambitions as "individuals' self-admitted opinions that they aim to establish new business enterprises and intentionally plan to do so at some time in the future." Entrepreneurial goals are thought to be the starting point for comprehending the new venture formation process (Lián, Nabi, & Krueger, 2013; Bird, 1988). This is mostly due to the fact that they anticipate entrepreneurial behaviour (Schlaegel & Koenig, 2014; Douglas, 2013; Shook, Priem, & McGee, 2003). Entrepreneurs will be unable to transfer their intentions into new companies unless they have an understanding of entrepreneurial support (Henley, 2005). While there may be other terminology for SMME support, such as small business help and customer support, Hanlon and Saunders (2007, p. 620) describe entrepreneurial support as "the act of giving an entrepreneur with access to a valuable resource." In this study, entrepreneurial assistance is defined as the availability of information and money, education and training programs, infrastructure provision, professional advice, and mentorship required for an entrepreneur to act on opportunities and operate the firm efficiently. While the need to support SMMEs is recognized by both the government and the private sector (Schaper & Volery, 2007; Boter & Lundström, 2005), the purpose of this study was to examine the influence of the knowledge of government entrepreneurial support on entrepreneurial intention.

According to Landázuri Ortiz, Terán Ivarez Del Rey, Hernández Cortés, and Mercado Doménech (2007), the business climate is the multidimensional social space that is shaped by a very complex web of social and psychological interactions among members of an academic community where processes of educational institutions take place. Our research was conducted in the School of Business of a private university in Tijuana, Mexico, and focused on the impact of students' perceptions of the academic climate on their quality of learning (Entwistle, 1987). The goal of this study is to offer guidance to higher education institution directors by presenting data that may help in formulating strategies aimed at enhancing the quality of the learning process while fostering an academic environment that may meet students' demands. Numerous institutional, behavioural, and structural factors influence and propel economic growth. Infrastructure, financial accessibility, security (defined as the absence of corruption and crime), and the regulatory environment, which includes policies on competition and the protection of property rights, are key factors that collectively define the business climate, also known as the investment climate. The business climate affects economic activity throughout the economy and particularly through its influence on incentives to invest. An improvement in the business climate increases returns to current lines of activity and so increases investment in these. It also creates new opportunities—for example through trade or access to new technology. It influences the psychology of entrepreneurs—the Keynesian “animal spirits”—affecting their assessment of whether innovation will pay off. It puts competitive pressure on firms that have enjoyed privileged positions as a result of import or other protection, or special access to government officials. As a result of greater competition, it may cause some firms, perhaps those closer to technological frontiers, to succeed—even as others fail.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Education experience by Boud's (1989) work [cited in Weil & McGill] places the learning process into a broader viewpoint. Although experiential or experience-based learning is thought to be the oldest method of learning for humans, its importance and capabilities were not fully recognized until recently. Boud, D. (1989). Forward. In Susan Warner Weil & Ian McGill (Eds). Making sense of experiential learning: Diversity in theory and practice. London: Open University Press

Experience in education is defined as being important in the process. Rogers has been vocal about the mastering process, particularly the role of an instructor in that process. He believes that no one learns anything important from another person. Instead, mastery occurs when a learner is intrinsically motivated to investigate and investigates something on his or her own. This sentiment is shared by Albert Einstein, who is quoted as saying, "I never educate my students; I merely try to provide situations wherein they can learn" [cited in Walter & Marks, 1981, p. 1]. In short, outside of the formal schooling discipline, there appears to be greater readability and conviction about what constitutes studying than within it.

Walter, G., & Marks, S. (1981). Experiential learning and change. New York: John Wiley and Sons. Attitude can have multiple meanings. Aptos, derived from the Latin Aptos, refers to "fitness" or "addiction" and, like its by-form power, refers to a subjective or status of readiness for action. However, through its use in the field of art, the term came to have a rather ambiguous meaning; it referred to the outward or visible posture (the bodily position) of a figure in statuary or painting. The primary meaning is clearly preserved in fashionable psychological science in what are commonly referred to as "mental perspectives," as is the secondary meaning in "motor attitudes." Because mentalis tic psychology has traditionally come before response psychology, it is natural to expect mental attitudes to be recognized before motor attitudes. Attitude symbolize as an 'intellectual and neural state of readiness' and argue that it is 'the maximum distinct and fundamental concept [construct] in current social psychology'

Attitude recognizes the importance of social structure in the development and maintenance of social order. However, they assert that if behaviour is to alternate, attitude should come first (Dollard, 1949; Krech & Crutchfield, 1948; Kutner, Wilkins, & Yarrow, 1970; Lewin, 1999).

## **RESEARCH OBJECTIVE**

Following are the objectives of this study:-

- 1) To analyze the impact of Support Knowledge on Entrepreneurial intention.
- 2) To analyze the impact of Business Climate on Entrepreneurial intention.
- 3) To analyze the impact of Education Experience on Entrepreneurial intention.

## **STATEMENT OF THE PROBLEM**

According to research, entrepreneurial ambitions increase the likelihood of forming a business, but the Theory of Planned Conduct believes that intentions capture the motivational component of behavior and are dependent on behavioral, normative, and control beliefs.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **RESEARCH QUESTIONS**

What is the role of entrepreneurial support in Entrepreneurial Intention?

Does the Environment Impact Entrepreneurial Business Intention?

Effects of Entrepreneurship Education on University Students' Attitude and Entrepreneurial Intention?

## **HYPOTHESIS**

**H<sub>1</sub>:** Support knowledge has a positive relation with entrepreneurial intentions.

**H<sub>2</sub>:** Business climate has a negative relation with entrepreneurial intentions.

**H<sub>3</sub>:** Education experience has a positive relation with entrepreneurial intentions.

**H<sub>0</sub>:** Vice versa is also true.

## **SIGNIFICANCE OF THE STUDY**

This research aim is to shapes the attitude of the educational institutions, governments, and begin-up centers, as well as households, in the direction of activities to increase entrepreneurial intention among business students.

Basu and Virick (2008) reach the conclusion that there is a strong focus on entrepreneurial objectives via educational and practical implementations of entrepreneurship processes. That is, educational institutions should offer information as well as practical experiences for business students in order to build their knowledge and skills for entrepreneurial endeavors. Business students should learn more about the many assistance structures available for starting new businesses, since this type of knowledge immediately impacts entrepreneurial inclinations.

## **LITERATURE REVIEW**

### **Entrepreneurship and the role of entrepreneurial support**

Governments can support new business start-ups and further business growth by providing entrepreneurship education schemes, subsidizing enterprise advice and training, and providing financial support schemes and maturation workspace (Bridge, O'Neill & Martin, 2009). To be essential, government interventions should improve the level of enterprise, entrepreneurship and/or growth of small businesses and transfer the benefits sought. Boter and Lundström (2005) assert that entrepreneurial support should motivate people to start businesses, provide good opportunities to develop new businesses, and entail support structures for equipping entrepreneurs with the necessary skills. This claim is supported by Gu, Karoly and Zissimopoulos's (2010) view that entrepreneurial activity is dependent on entrepreneurs who start and manage new ventures. The role of entrepreneurial support in determining entrepreneurial intention is based on the organizing model proposed by Shook et al. (2003) and the GEM approach of describing the entrepreneurship process (Simrie et al., 2012). They both view the development of entrepreneurial intention as the first stage in the new venture creation or entrepreneurship process. Therefore, the entrepreneurial process appears to be a valuable framework for understanding how entrepreneurial behaviour occurs in businesses and how entrepreneurial support can enhance this behaviour. It consists of crucial aspects that are relevant for both intending and existing entrepreneurs.

### **The relationship between education experience and entrepreneurial intentions**

Many studies have been undertaken on college students' intentions to become entrepreneurs. Christian (2000) investigated Bataknese students' intentions to become entrepreneurs and discovered that 65





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

percent of respondents intended to become entrepreneurs. Another survey on the intentions of Balinese students indicated that out of 105 respondents, 39.5 percent expressed an aim to be an entrepreneur and 35 percent expressed a desire to be an entrepreneur Lie & Christine (2004), reported in a study on Chinese students' entrepreneurial intentions that 33.66 percent wanted to be entrepreneurs and 13.86 percent desired to become entrepreneurs out of 105 respondents. Gerald (2006) conducted a similar survey on the intentions of Javanese students to become entrepreneurs and discovered that 30.4 percent of 194 respondents declared their intention to be entrepreneurs and 22 percent stated their desire to be entrepreneurs. Entrepreneurial intention research focuses on personal characteristics (risk-taking, proclivity and tolerance for ambiguity, an internal locus of control, innovativeness, and independence) as well as motivational elements (love). Rather than environmental differences between (Ang and Hong), such as a desire for money, security, and prestige. Henderson and Robertson, 2000 Wang and Wong (Wang and Wong, 2004). Entrepreneurial people and goals should be developed through enterprise education, which equips individuals with the necessary skills. Appropriate information and skills for starting and maintaining businesses (Gatewood et al., 2002). Higher education in Malaysia offers a wide range of entrepreneurial education scope and structure. Entrepreneurship is unlikely to be useful unless it is learned and practiced (KF, 2007; Hisrich, Langan-Fox, & Grant, 2007). Professional education at universities is an effective technique of acquiring crucial educational support.

### **Relationship between Business Climate and Entrepreneurial Intention**

Several previous researchers have studied business theory in relation to corporate strategy, particularly in developing countries (Li and Peng, 2008; Wright et al., 2005). According to Oxley (1999), the business climate is a set of political, social, economic, and legal practices that shape career situations. The business climate can also be divided into three major components: regulatory, normative, and cognitive "pillars" (Urban and Kujinga, 2017). Two main aspects of the business climate are critical in influencing business strategy and performance (Wu and Chen, 2014). The establishment of social norms and ideas about business as a sensation, as well as access to the numerous references of reasoning required to launch a business, are all examples of the institutional climate. It also includes direct actions to maintain a framework for a more favorable business environment for entrepreneurship (Ivy, 2013; Suchman, 1995). In the meantime, the institutional environment fosters entrepreneurship through social norms and business-related beliefs, giving access to the many knowledge sources required to launch a business. Business climate affects the intuitions of desirability and feasibility, society's social and cultural domain, such as moralities, values and attitudes, situational behaviour and outcomes made by individuals. The normative, behavioral, and intellectual institutional settings have an impact on people's views of desirability and feasibility, according to Fayolle and Francisco (2014) and Shane (2008). Factors related to business climate cannot be ignored and should be considered as crucial determinants when measuring entrepreneurial intentions at the country level. Using the theories of Scott (1995) and Busenitz et al. (2000) as a foundation, we categorize the factors that influence the business climate into three categories: normative, cognitive, and regulatory. Here is an explanation of these dimensions: The regulatory environment component, which is the first, reflects a codified collection of laws, regulations, and government initiatives that are formally intended to promote entrepreneurship in a certain nation. System to support neural activity developed by Wisuwat Wannamakok, YuYu Chang, and Marge Täks The urge to start a business depends on a number of variables, including the nation's legal structure and the status of the global economy (Shane, Locke, and Collins, 2003). According to Busenitz et al. (2000),





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

a nation's citizens reward commercial innovation and creative thought to varying degrees depending on the regulatory environment. The second aspect of the cognitive environment is related to people's attitudes, competencies, and knowledge around launching new firms.

This dimension comprises perceptions of how long a specific behaviour is projected to remain in a culture, community, or society. Therefore, according to Busenitz et al. (2000), the ability of people in a country to recognize the cognitive dimension can reflect their knowledge and skills to start and run a new business. Consequently, the entrepreneurial cognition perspective can be used to understand how and why entrepreneurs think and act the way they do (Krueger, Reilly, & Carsrud, 2000). Third, the normative environment dimension includes the prevailing standards and norms that support entrepreneurial activity in the country (Scott, 2007). Eciara, Aponte, and Urban (2002) found that cultural, social, political, and economic variables are good indicators of intentions to start a business. In conclusion, the three components of the institutional environment have a significant impact on how entrepreneurialism develops in a nation (Ahlstrom and Bruton, 2010; Manolova et al., 2008). In particular, the enabling environment, or perspective of social legitimacy, suggests that people's dominant beliefs and values may be more likely to drive them to start new businesses, which seems to vary across countries (Vaillant and Lafuente, 2007).

## **METHODOLOGY**

According to study, entrepreneurial goals are found to affect the likelihood of starting a business, but the Theory of Planned Behaviour argues that intentions capture the motivational part of behaviour and are influenced by behavioral, normative, and control beliefs. The goal of this study is to discover the characteristics that influence business students' entrepreneurial inclinations. Structural equation modelling was done using the partial least square technique. In this study, only a quantitative research approach is used. If numerical information is created via samples to evaluate the application of current theory through analysis, the quantitative examination approach is beneficial. The study's questionnaire contains several elements that jointly measure entrepreneurial intent among young people who are about to graduate and aim to open their own businesses.

## **RESEARCH DESIGN**

This study looked into the factors that influence university students' entrepreneurial intentions. This research is based on data acquired from recent business graduates in order to investigate the facts around barriers to entrepreneurship. Our target sample includes serious students with some prior knowledge of business, and the study focused only on final year students for the analysis. We just have one variable category in which we are dealing with micro level universities. The quantitative character of this investigation is advantageous.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## POPULATION AND SAMPLE

The population of this study consists of students or graduates, fresh employees as respondents. In concrete terms, the sample is selected according to the spss process according to faculties. It is assumed that using this sampling method, students from different fields of study can be represented. Undergraduate college students are considered a useful sample because they are young and can be categorized as "Millennial Generation" at. Also, they will enter their working lives soon after graduation as entrepreneurship can be a career option for them. These students were contacted by email and asked if they would be willing to take part in a survey.

## THE OPERATIONAL MODEL

This study used self-administered surveys to collect data, which was then analyzed using SPSS version 22 and allotted through percentages, averages, standard deviations and frequencies. This procedure was found effective and valuable since it is lenient to contact the mainstream of the undergraduates during the residential terms. About 150 questionnaires were distributed among the individuals in Lahore including undergraduate and postgraduate students of different fields such as business, marketing, banking, freelancers, etc. Our survey questionnaire is divided into 2 section one is demographic information and the other section is further divided into 4 parts related to our selected variables as entrepreneurship intention, attitude towards behaviour, perceived behavioural control and subjective norm as **A**, business climate as **B**, Education experience as **E**, support knowledge as **S**. Every individual will give their opinion as if they Strongly Agree, Agree, Neutral, Disagree, Strongly disagree from our given questions. Additionally, we have added a section on demographics because family background and demographics have an impact on someone's propensity for entrepreneurship (Breen 1998). According to the general theory, having an increased propensity to pursue entrepreneurship is a result of both personal entrepreneurial talents and the positive influences of family (Din 1992).

## RESULT AND DISCUSSION

### Descriptive Statistic

	EI	BC	EE	SK
MEAN	2.5142	2.9314	2.4527	2.3933
SD	.40891	.73420	.77095	.73727
MIN	1.37	1.29	1.00	1.00
MAX	3.89	5.00	5.00	5.00
Observation	100	100	100	100

**CORRELATION**

		1	2	3	4
EI	Pearson Correlation				
	Sig. (2-tailed)				
	N	100			
BC	Pearson Correlation	0.196			
	Sig. (2-tailed)	0.05			
	N	100	100		
EE	Pearson Correlation	.525**	.355**		
	Sig. (2-tailed)	0	0		
	N	100	100	100	
SK	Pearson Correlation	.526**	.312**	.675**	
	Sig. (2-tailed)	0	0.002	0	
	N	100	100	100	100

\*\* p < 0.01 (2-tailed) \* p < 0.05; N= 100;

**REGRESSION OF ENTREPRENEURIAL INTENTION**

	t	Coefficients	Significance
BC	-0.163	-0.015	0.871
EE	2.721	0.315	0.008
SK	2.787	0.318	0.006
F STATS	15.728***		
R SQUARE	0.330		

\*\*\* Significant at 0.01 (1%) > 0.008

\*\* Significant at 0.05(5%)

\* Significant at 0.10(10%)

The Business climate is negatively insignificantly related with Entrepreneurial Intentions of the students. The Education experience is positively influencing the Entrepreneurial Intentions since it is significant at 0.01 level significance. The Support Knowledge is positively related to the Entrepreneurial Intentions since it is significant at 0.05 level.

**CONCLUSION**

In Lahore, this study is a first of its sort. The study's noteworthy findings about the factors that influence students' entrepreneurial intentions are highlighted despite its constrained reach and use of just students from business schools. The educational system should be the primary support mechanism for students in terms of their knowledge base about entrepreneurship, as this study emphasizes once more. This is crucial because it can lead to more entrepreneurship-friendly attitudes, a sense of greater control, and higher levels of societal acceptance. Higher levels of entrepreneurial intentions follow from those



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

characteristics. The results support the GEM finding for entrepreneurial intention in Lahore and indicate that more work is needed to modernize the educational system in both the formal and informal sectors. Our effort influences how universities, governments, start-up hubs, and families feel about initiatives to boost entrepreneurial aspirations among business students. We also draw the conclusion that entrepreneurship ambitions are strongly emphasized through education and actual exposure to the activities of entrepreneurship.

This implies that the educational system should give students with knowledge and real-world experiences that will help them develop their knowledge and abilities for entrepreneurial endeavors. A similar strategy for entrepreneurship education should be implemented, according to OECD studies, with an emphasis on higher education institutions, the use of active teaching techniques, corporate mentoring, and specifically targeted SME support networks. Additionally, as this kind of knowledge directly affects students' ambitions to create their own businesses, students should learn more about the numerous support networks that are accessible for doing so. Insufficient social capital and business network experience may affect how businesses are started, run, and have access to financing, according to a recent research of 27 nations. Creating a favorable business atmosphere will encourage more optimistic attitudes and a sense of control, which will increase entrepreneurial ambitions. To provide a solid foundation for future policy interventions and increased self-employment in Lahore, future study in this area should focus on students enrolled in academic programmed other than business.

#### Reference

- Ajzen, I. (2012). The theory of planned behaviour, In Lange, P A. M., Kruglanski, A. W. & Higgins, E. T. (Eds.), *Handbook of theories of social psychology (Vol. 1, pp 438-459)*.
- Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology, 22*: 453-474.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral Bandura, change. A. *Psychological Review, 84*, 191-215.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review, I (3)*, 442-453.
- Bridge, S., O'Neill, K. & Martin, F. (2009). Understanding enterprise, entrepreneurship and small business, (3rd Ed.). *Hound mills, Basingstoke: Palgrave Macmillan*.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: *An introduction to theory and research. Reading, MA: Addison-Wesley*.
- Gerald, M.T. (2006). Gambaran Intensi dan Sifat-sifat Kewirausahaan Mahasiswa Jawa. Skripsi. Fakultas Psikologi Universitas Atma Jaya, Jakarta.
- Gu, Q., Karoly, L. A. & Zissimopoulos, J. (2010). Small business assistance programs in the United States: An analysis of what they are, how well they perform, and how we can learn more about them. *International Review of Entrepreneurship, 8(3)*, 199-230.
- Henley, A. (2005). From entrepreneurial aspiration to business start-up: Evidence from British longitudinal data, 01 November 2007).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Kim, G. & Cho, J. (2009). Entry dynamics of self-employment in South Korea. *Entrepreneurship & Regional Development*, 21(3), 303- 323.

Lie, J. (2004). Gambaran Intensi dan Sifat-sifat Keusahawanan Mahasiswa Bali. (*Master's Thesis, Universities Atmajaya, Jakarta*).

Liñán, F. & Chen, Y.-W. (2006). Testing the entrepreneurial intention model on a two-country sample. *Working paper. Barcelona, Spain: University of Barcelona*.

Nabi, G., Holden, R. & Walmsley, A. (2006). Graduate career-making and business start-up: *A literature review. Education & Training*, 48(5), 373-385.

Shook, C.L., Priem, R.L. & McGee, J.E. (2003). Venture creation and the enterprising individual: *A review and synthesis. Journal of Management*, 29(3), 370-399.

Shook, C.L., Priem, R.L. & McGee, J.E. (2003). Venture creation and the enterprising individual: *A review and synthesis. Journal of Management*, 29(3), 370-399.

Simrie, M., Herrington, M., Kew, J. & Turton, N. (2012). GEM South Africa 2011 Report. (*26 October 2012*)

Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory & Practice*, May, 669-694.

Wannamakok, W., Chang, Y.Y., & Täks, M. (2020). The Relationship between Institutional Environments and Entrepreneurial Intention in Estonia: Mediating Roles of Desirability and Feasibility. *Entrepreneurial Business and Economics Review*, 8(2), 111-126.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Promotions and Performance of non-teaching Staff in Higher Education Institutions of Pakistan**

Dr. Shrafat Ali Sair

University of the Punjab, Lahore

Kaleem Ullah,

Lincoln University College, Malaysia

Dr. Muhammad Usman

University of the Punjab, Lahore

Dr. Zia-ur-Rehman Rao

University of the Punjab, Lahore

**Abstract**

This study depend on the performance appraisal system and the promotion of the staffing level in the higher education sector in Pakistan, and the institutional independence of the public sector cannot implement policies and strategic rules. Institutions in the public sector can complete strategic rules for teachers (teachers) and university non-teaching staff through the Council. There are many changes to the pay table in the public sector institutions such as Pakistan Virtual University, COMSATS University and Sargodha University. Employee-level staffs are completely ignored, and strategic policies for incremental cases, performance evaluation, and promotion cases are developed. Teaching staff are enjoying a lot of benefits. They also have access to higher education facilities through HEC-based scholarship programs. Non-teaching staff in the university's business activities play a very important and creative role. Financial problems at the employee level were mishandled by the University's senior management. Non-teaching staff can handle smooth operational activities such as smooth course transmission, maintenance of teaching workload systems, student registration problems, and maintenance of student data and many other tasks. I have conducted research on staff in different public sector organizations on the assessment reports and promotion cases. Employees rely entirely on the likes and dislikes of direct supervisors.

During my research, I highlighted issues related to non-teaching staff (since the agency did not have a specific policy form and was assessed in the financial year, the promotion case was year after year). Recommendations for improving the quality of education and the adoption of new technologies for employees, while presenting evaluation reports on a numerical and analytical basis are also put forward. Different solutions are offered for (staff development, career management, employee benefits, skills development programs, job satisfaction factors, work stress factors, job design factors), workshops and special awareness building and motivating employees to qualify for different kinds of education field. Through regression analysis of data analysis carried out research, and through descriptive methods to give solutions.

**Introduction**

Non-teaching staff is an important factor in all kind of education sector. This non-teaching staff is more respected assets to all Universities like, Public Sector Universities and private sector Universities as per (Petruzzellis, L., D'Uggento, A. M., & Romanazzi, S. 2006). The basic concept in Pakistan is that teacher and students are more valuable assets of Universities, because the teacher's given knowledge to students



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

and they got different kinds of degrees in different programs, but teaching staff in universities cannot not run without the participation of non-teaching staff. The performance of non-teaching staff and performance of teaching faculty members are appreciated resources to continue the volume of activities of Universities equally by (Deligero, J. C. L., & Laguador, J. M. 2014). Unfortunately, in Pakistan especially in Public sector Universities, the non-teaching staff is ignored by the higher management or by Competent Authority. I think that there is not any research conducted in the past on this topic in Pakistan by (Strathdee, S. A., Hallett, T. B., Bobrova, N., Rhodes, T., Booth, R., Abdool, R., & Hankins, C. A. 2010), so I want to conduct the research on performance and promotions criteria of non-teaching staff in public sector at higher education Institutions. Many Public sector education Institutions preferred the teachers / coaching staff but non-teaching staff is mainly ignored while making the decisions regarding promotions and up gradation matters.

There is not uniform policy to upgrade and promotion of these staff members. If the Government has such criteria but the HR-section cannot implement on such kinds of rules and regulations. The involvement, employee is given chance to raise their expressions as per (Prof. Jordan, 1992.) The skills development and improvement in work environment and trainings programs are never conducted by HEC or Public Sector organizations for non-teaching staff by (Rasheed, M. I., Yousaf, H. D. A. S., & Noor A, 2011). These organizations cannot provide the financial support, annual increments and special incentives program by the higher management in Public sector organizations. If the higher management will set targeted programs to achieve some specific goals, the employee should be more committed with promotions. If Supervisor mark the positive performance appraisal like promotions and honorarium but he could not know about the rules and regulations according to the (Begum. R., 2016).

### **Research Problem Statement**

What are the factors affecting on employee performance and promotion of non-teaching staff in higher education Institutes of Pakistan?

### **Research Objectives**

To examine the differential effects of different factors on promotion and performance evaluation of the staff grade employees. To Investigate the factors of effect on independent variables like (Benefits, Career Development, Employee Development, Job satisfaction, Pay, Job stress, Performance appraisal and (Employee promotions or Employee performance) are dependent variables and find out the reasons which involve to diminishing ratio of performance day by day and evaluate the promotion parameters in next scale of staff grade employee.

### **Research Methodology**

The population will involve on non-teaching worker in public sector Institutions in Lahore. The data is collected through survey through instrument self-reporting questionnaire will be prepared by the researchers. The Variables used in survey / questionnaires benefits, Career Development, Employee Development, and Job Satisfaction, Pay /Salaries, Job stress, Employee performance, Performance appraisal and promotion. Simple random sampling is used as sampling design for an analysis the data, from descriptive statistics regressions analysis, should be used to analysis and test will be used to test the hypothesis. To check the regression analysis between independent variables and dependent variables the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Beran and Kenny procedures has been used for the confine research analysis through variables. The feedback has been taken through questionnaires / survey forms from 3 Higher Education Institution (COMSATS Institute of Information Technology, Virtual University of Pakistan, CFE Institute Lahore in my research Study.

### **Literature Review**

The employee stress affect the performance and future planning fundamentally isolates accomplishment, so that he can have strategy his own growth and generating organization results has written in another research article by (Rao, 2008).

An empirical problem are point out in my research thesis the Public sectors higher education institutions not adopt currently in practicing HR rules and regulations while appointment of non-teaching staff in Higher Education Institutions, the job descriptions are mentioned in appointment letter and in Performance appraisal form evaluating the standards are not mentioned on which performance is evaluated the efficiency and effectiveness and employee has obtained the goals or target which is also declared in Performance appraisal form by (Kipkebut, D. J, 2010). The purpose of this study is to take managerial assessments increase in salaries of staff and promotions. As per (Human Resource) theory and practices four dimensions like (selection, training, promotion, pay etc.) are depend on employee performance and organizational work environment and job design create there motivational variables draw and certain parameters of creativity and production activities which has impressions on organizational value by (Wright, 2003). During the personal evaluation performance old typed forms are available for the evaluation of the staff grade employee, during the form there are not such kind of criteria are available by (Kessler, I., & Purcell, J, 1992).

The employee performance evaluation indicating to enhancement of efficiency of organizations and useful toward screening the output by (Brown & Hewood, 2005). The productivity and employee performance can be enlarged growth the considering the employee performance by (Brown & Benson, 2003). Promotions of staff play key and vital role to career development of the staff and organization development wrote by (Brew, A, & Boud, D. 1996). The essentials of given HR theory and practices create work force, they train them and find out opportunities in exterior environmental conditions and be more reactive then their participants (Barney, 1991). There are substantial affairs between HR and OC and HR would be segregated to the scope they play central organizational policies by (Conway, E, 2004). The Promotions are considered to play an important role in organizational career development process by (Souza, G.D., 2002). The Promotions observes help as a strong persuader for the progress of OC in an Institution of higher education Supervise members by (Markham, W.T., S.L. Harlan and E.J Hackett, 1987). An Evaluation of the performance is undertaken to look after the affairs employee during their work in order to improve employee performance and motivation by (Brown, M. and J.J.S Heywood, 2005). Career management is very important and should improve the deployment of skills base for future that supports themotivation and retention of high quality staff. If the employees have good preparation occasions in direction to retain them up to date and continue in Employment arcades by (Gordon, 2003). The public sector organization mostly gives the chance to teachers neglecting the non-teaching staff. The proper employee for the right training and expansion in his work and teaching at the right time for the correct job, delivers big payouts for the institute in growing the efficiency, information, devotion, and input by (Heathfield, 2012). There are different kinds of parameters will measures the



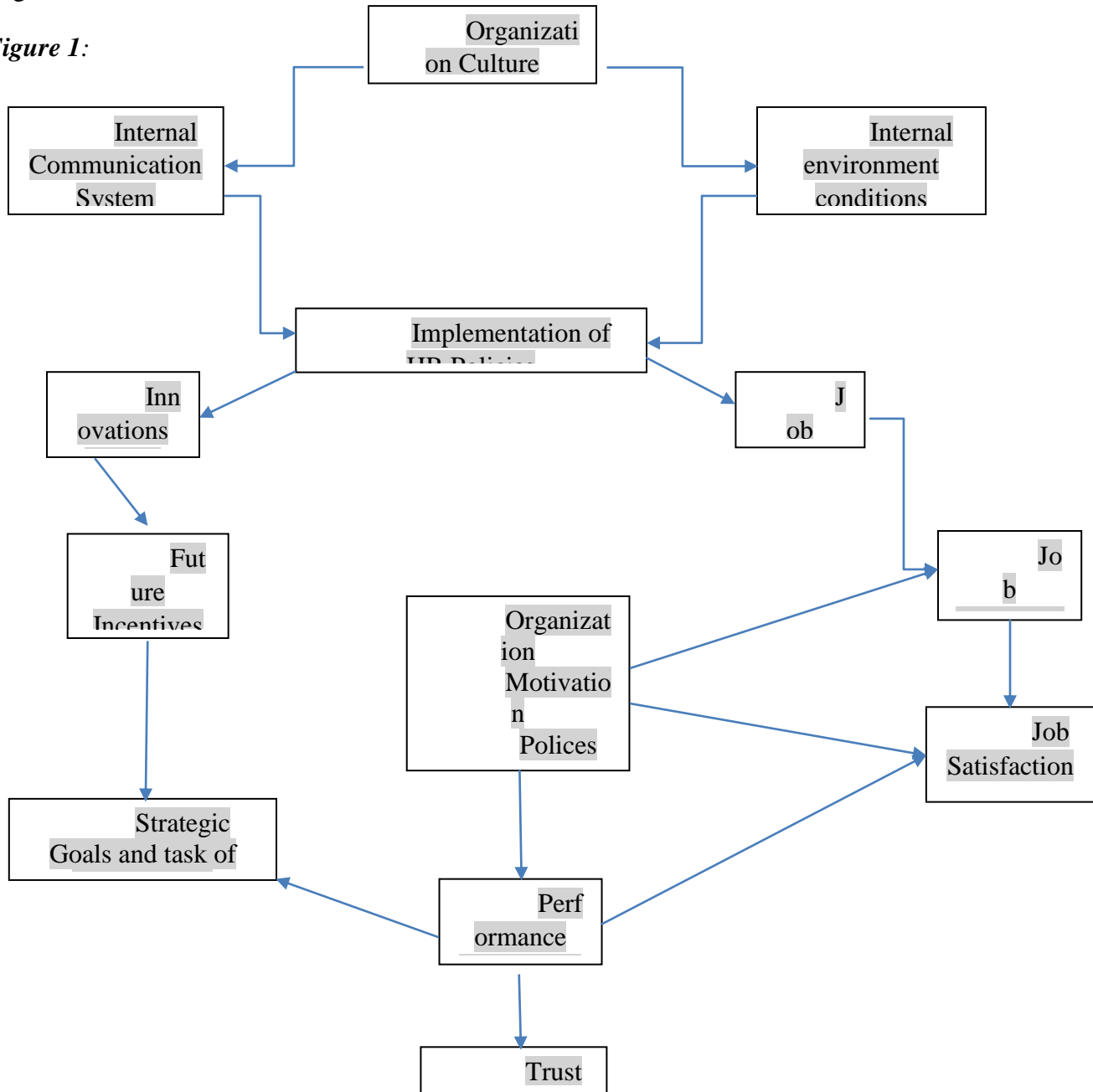
Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

performance by signing the different codes like outstanding stand which will be stand on code No.(1) and other values for good (2) and other variables, which stand Average on code No. (3) And value stand for below average with code No. (4) For the other Adjusting performance and other values of equity/poverty during the year shows that a very bottom-line position can be assessed by the director of the financial year. These four dimensions involve assessing and measuring the performance of employees during the fuzzy logic parameter method. These parameters play an important role in assessing the annual performance appraisal report. These variables help to understand the strength and weaknesses of the year and the feasibility of rewards.

**Figure 1:**



**Organizational Culture**

These variables provide work and conceptual frameworks for organizational culture and the achievement of employee advancement and the creation of educational institutions for job satisfaction by (Brown's Crist, 2007). The work-personal-to-work or job-to-work compatibility is a person's job to accommodate employee-based competencies to meet future needs, Employee needs. The benefit





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

program helps employees with the involvement of organizations and employees, and with great interest in future plans, special bonus plans, and bonuses with employee and employer achievement goals, while in the present case, universities in developed countries and as part of teachers. The Colleges / Universities use the student's evaluations system to measure the performance of teaching and learning. Student scores for teaching performance and research publications are summed up by teacher evaluations and are also part of the teaching performance evaluation. The parental authority gives non-teaching staff the opportunity to evaluate and present the immediate supervisor's impact on work to address Problems, behavior patterns and the establishment of line managers and employees, and these points will be incorporated into the management assessment system, and senior management will be based on non-teaching staff scores given future decisions.

### **Conceptual Frame Work**

Social theories are frameworks of pragmatic evidence used to study and understand social phenomenon. An instrument used by social scientists, social theories share to historical debate over the most valid and dependable methodologies (e.g. positivism and anti-positivism), as well as the primacy of either formation or organization. Certain social theories attempt to remain strictly scientific, explanatory, and objective. The origins of social exchange theory are difficult to locate, but debated normally return to Ancient Greece. Today, social science is used as a sunshade term to refer to sociology, economics, political science, jurisprudence, and other disciplines. Social theory is intercorrective and draws upon ideas from fields as mixed as anthropology and media studies. Social exchange theory of a casual nature, or authorship based outside of academic social and political science, may be referred to instead as "social criticism" or "social commentary". Similarly, "cultural criticism" may be linked both with formal cultural and literary learning, as well as other non-academic or journalistic forms of script. Social theory as a separate discipline emerged in the 20th century and was largely equate with an attitude of critical thinking, based on prudence, logic and objectivity, and the desire for knowledge through a posteriori methods of discovery, rather than a priori methods of tradition. Based on variables the study has been conceptualized. The diagrams showing the relations among employee devotion, Job satisfaction, Job rotations, Performance evaluation and staff promotion in Higher Education Institutes in Pakistan by (Emerson, R. M ,1976). The Independent variables stands on (Benefits, Career Development, Employee Development, Job Satisfaction, Pay, Job Stress, and Performance Appraisal).

**Theoretical Model**

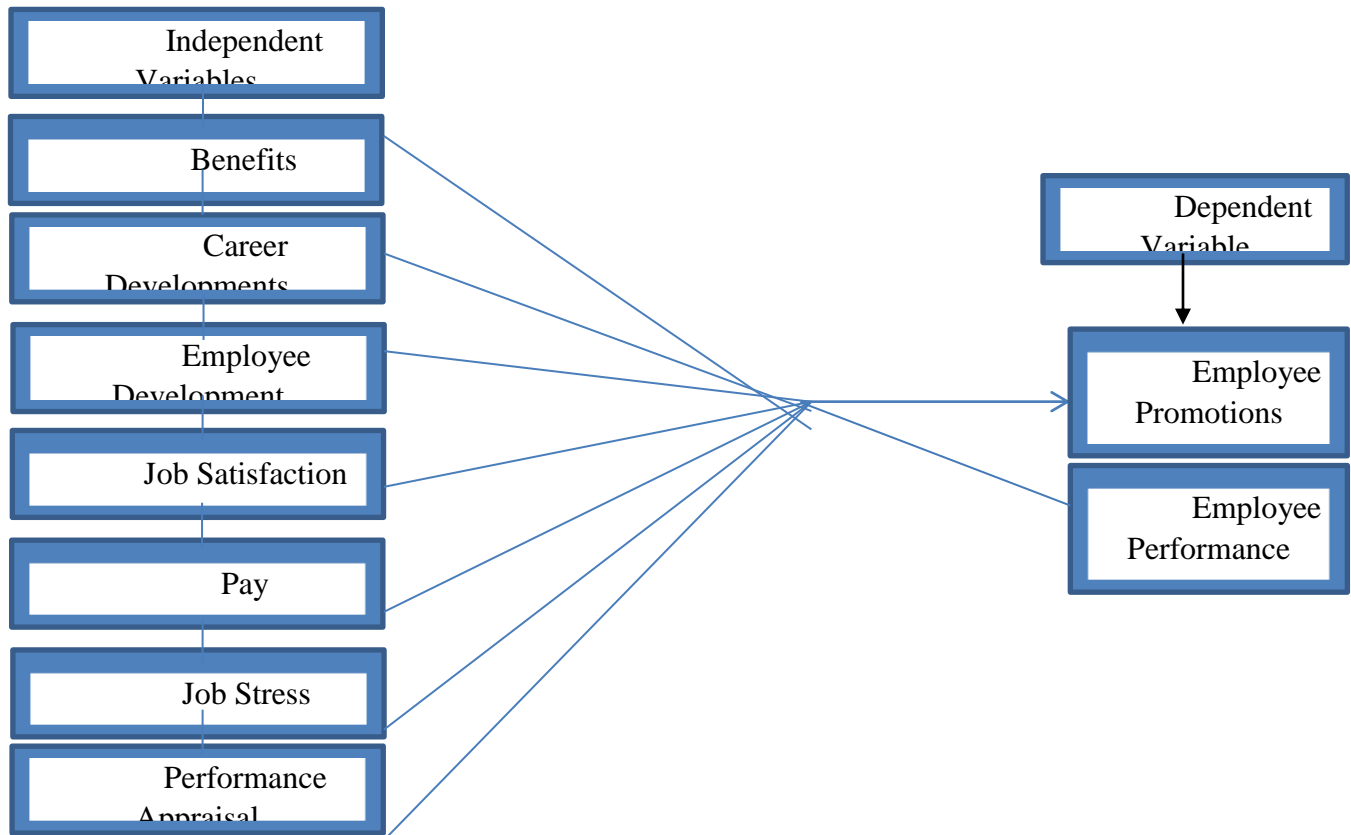


Figure 2: Theoretical Framework

**Independent Variables**

This exploratory investigation, explanatory statistical analysis were conducted on the quantitative data, while a key theme and stable proportional method were used to analyze the qualitative data. The other independent variable (Career Development (a career is defined as the combination and sequence of roles played by a person during the course of lifetime. These roles include those of child, pupil or student, citizen, worker, spouse, homemaker, parents, and pensioner, positions with associated expectations that are engaged at some time by most people, and other less common roles such as those of criminal, reformer, and lover. A Life-Career Rainbow is presented as a mean of helping conceptualize multidimensional career, the sequential participation in, and the emotional promise too, each role. I have first reviewed two different perspectives and streams of research on employee development, commitment and retention by (Cooper, C. D., & Kurland, N. B, 2002). Previous organizational citizenship behavior (OCB) research (a) has not established that extra-role behaviors can be distinguished empirically from in-role activities, and (b) has not examined the relative contributions of components of job satisfaction and organizational commitment to the performance of OCBs. Factor



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

analysis of survey data from 127 employees' supervisors supported the distinction between in-role behaviors and two forms of OCB's. Pay is another independent variable is find out the outcome and effect of employee's growth and Pay take part in a very important role in any organization for employee approval. The following characteristics of the appraisal process are discussed: (1) observation, reward opportunities, and systemic issues such as function and expectations within the context of the organization; (2) the appraiser's automatic attention processes, categorization and memory, and information search and recall; and (3) appraises' automatic and controlled modes of behavior by (Mayer, R. C., & Davis, J. H, 1999).

## **Dependent Variables**

### **Promotion**

The promotion is another dependent variable and examined the strength and weakness with the analysis of independent variables. The promotions can dependent better performance during the financial year. The employee must deserve for the promotion as per defined rules. The supervisor mark the positive remarks about employee (Fryeburg, T, 2015). Some promotions depend on good efficiency of work done by employee especially in private sector and on the other hand some promotion will make as per defined rules and procedures, especially in government sectors in Pakistan. There are many kinds of parameters involved for the evaluation of promotion like the employee's behavior, employee's attitude, the education, consistency in his work capacity to build up new policies for the betterment of the organization, suitability for the next scale, previous back ground experience, honest in his work, dedication, regularity, and assessment of task based on assignments in the organization.

### **Employee performance of non-teaching staff.**

The employee performance evaluations of non-teaching staff consider as dependent variable and examined with independent variables. During the frame work of employee performance of non-teaching staff, there are many essentials are involved and placed below:

To evaluate the past performance of the employee in the institution. The continuous self-improvement and development of the employee.

The constructive feed back to the employee and past outstanding achievements.

The Supervisor's focus on the behavior of the employee can not to be considering as a person on the job.

The supervisor must contain the self-esteem of the employee.

Evaluation of Supervisor and employee relationships. The nature of the job and the supervisor's expectations from employee. Prior to the end of probationary or trial employment period.

The evaluation should make for the first 3 years of permanent employment and appropriate or on request made by the employee or supervisors.

The academics and higher education institutions need learning, adopt effective and efficient performance evaluation model and more value of effectiveness of the non-teaching staff. The conceptual frame work has been designed for performance evaluation as per publication by (Mizikaci, F, 2006). During the modern management system the performance evaluation of the employee used as a tool for systemic process that seeks to evaluate employee performance and help in identify the employee's potential for the further growth and advancement within in institution by (Kravchuk, R. S., &Schack, R. W, 1996).The basic motive of performance evaluation system to look after and monitor the employee



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

activities and boost employee’s potential for further growth and motivation that will improve organization moral and also useful tools for understanding and assessing employee skills and immediate source of make the judgment and evaluating the performance of non-teaching staff by (Simons, R,2013). The supervisor can use 360 degree factor for the feedback of the employee and also evaluate every one that come in contact by (Turk,2005).

### Reliability and aspect Analysis

Reliability analysis is enforced on the data which was gathered after submission of the set of questions from the 270 employees of diverse public and private companies and the Cronbach’s Alpha of the complete research is 0.902 which demonstrates the reliability is excellent as it is higher than 0.7 which is good for the research.

**Table 7: Factor Wise Reliability**

<i>Variables</i>	<i>No of Items</i>	<i>Cronbach’s Alpha</i>
<i>Benefits</i>	6	0.848
<i>Career Development</i>	5	0.653
<i>Employee Development</i>	4	0.745
<i>Job Satisfaction</i>	5	0.697
<i>pay</i>	5	0.686
<i>Job Stress</i>	4	0.774
<i>Employee Performance</i>	5	0.654
<i>Performance Appraisal</i>		
<i>Promotion</i>	4	0.810
	6	0.638

### Regression Analysis

**Table 11: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.522	.135		3.870	.000
Benefits	.405	.038	.532	10.628	.000
Career Development	.792	.023	.753	33.791	.000
Employee Development	-.094	.021	-.094	-4.519	.000
Job Satisfaction	-.036	.021	-.037	-1.721	.086
Pay	-.092	.028	-.070	-3.264	.001
Job Stress	-.111	.054	-.151	-2.067	.040
Performance Appraisal	-.030	.044	-.043	-.675	.500



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Findings and Hypothesis results with effect of employee performance**

This Table depicts the values of significance among all variables. We can see that the value of significance between benefits and employees performances **0.000** which is less than **0.05** and indicates that benefits and employee's performance has an association with each other. So we accept (**H1b** which expresses that there is a relationship between Benefits and employees performance).

The value of significance between career development and employees performance is **0.000** which is less than **0.05** and indicates that benefits and employee's performance has an association with each other. So we also accept **H2b** which expresses that there is a relationship between career development and employees performance.

The value of significance between employee development and employees performance is **0.000** which is also less than **0.05** so it indicates that the benefits and employee's performance has an association with each other. So we also accept **H3b** which expresses that there is a relationship between career development and employees performance.

The value of significance between job satisfaction and employees performance is **0.086** which is higher than **0.05** so it indicates that the job satisfaction and employee's performance has insignificant relationship with each other. So we reject **H4b** which expresses that there is no significance between job satisfaction and employees performance.

The value of significance between pay and employees performances **0.001** which is higher than **0.05** so it indicates that the job satisfaction and employee's performance has significant relationship with each other. So we accept **H5b** which expresses that there is association between pay and employees performance.

The value of significance between job stress and employees performance is **0.040** which is less than **0.05** so it specifies that the job stress and employee's performance has an association with each other. So we accept **H6b** which expresses that there is a relationship between job stress and employees performance.

The value of significance between performance appraisal and employees performance is **0.500** which is higher than **0.05** so it specifies that the performance appraisal and employee's performance has no association with each other. So we reject **H7b** which states that there is no relationship between performance appraisal and employees performance.

### **Findings and Hypothesis results with effect of employee promotion**

This Table depicts the values of significance among all variables. We can see that the value of significance between benefits and employees promotion is **0.000** which is less than **0.05** and indicate that benefits and employee's promotion has an association with each other. So we accept **H1a** which expresses that there is a relationship between Benefits and employees promotion.

The value of significance between career development and employees promotion is **0.000** which is less than **0.05** and indicates that benefits and employee's promotion has an association with each other. So we also accept **H2a** which expresses that there is a relationship between career development and employees promotion.

The value of significance between employee development and employees promotion is **0.000** which is also less than **0.05** so it indicates that the benefits and employee's promotion has an association with each other. So we also accept **H3a** which expresses that there is a relationship between career development and employees promotion.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The value of significance between job satisfaction and employees promotion is **0.031** which is also less than **0.05** so it indicates that the job satisfaction and employee's promotion has an association with each other. So we also accept **H4a** which expresses that there is a relationship between job satisfaction and employees promotion.

The value of significance between pay and employees promotion is **0.071** which is higher than **0.05** so it indicates that the job satisfaction and employee's promotion has insignificant relationship with each other. So we reject **H5a** which expresses that there is no association between pay and employees promotion.

The value of significance between job stress and employees promotion is **0.000** which is less than **0.05** so it specifies that the job stress and employee's promotion has an association with each other. So we accept **H6a** which expresses that there is a relationship between job stress and employees promotion.

The value of significance between performance appraisal and employees promotion is **0.000** which is less than **0.05** so it specifies that the performance appraisal and employee's promotion has an association with each other. So we accept **H7a** which expresses that there is a relationship between performance appraisal and employees promotion.

### **Findings of the Research Work**

The objective of this thesis is to understand the features that affect promotion and performance evaluation of non-teaching staff in higher education institutions of Pakistan. Therefore, it is unfavorable to the organization if they do not provide an opportunity for career development to employees in the organization. Often, in public sector educational institutions, many opportunities for higher education scholarships, paid leaves for higher education and many types of facilities are given to teachers are not giving to staff. Non-teaching staff are completely ignored in these opportunities. The employees are facing the huge problems while promotions in next scale. Some higher education sectors universities especially autonomous bodies institutes cannot follow up the proper rules and regulations while employee performance evaluations and promotion criteria. They also make and adopt special pay scale which is irrelevant from public sectors HR rules and regulations. In these institutes, the HR section designs their own strategies in good faith of organization which is not in favor of employees. This study is shown by issuing the questionnaire in different Public or Private organizations. Here is a short-term conversation about the demography of the respondents.

### **Limitations of the Study**

Each study takes some restrictions. This thesis also has some limitations which are as follows:

The first restraint of this Thesis is that promotion and performance appraisal, rules and regulations away from the staff. Employees are not aware of appropriate rules and regulations regarding promotional standards. The second limitation of this study is that employee performance is measured by direct distribution of questionnaires to the employees themselves, who have great presentation in all sections and may hide the unique grades.

For of fewer times and fewer resources, statistics cannot be composed from a huge quantity of employees, since period from staff throughout their effort hours is a hard task. The fourth part restriction of this study is that facts are only collected at three higher education universities, the COMSATS



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Information Technology Research Institute, Virtual University of Pakistan, and the CFE Institute Lahore. This may limit the generalization of the study.

Another limitation of this study is that the study does not include employee-supervisor relationships and non-behavioral methods of staffing, rather than organizing professional activities and implementing policies on evaluation and promotion. The supervisor's personal career is being shown because the evaluation form relies entirely on the strength of the executive and promotion staff.

### **Endorsements for upcoming researchers**

This is commended to check the factual performance of the worker's future researchers should take the reply of employee's performance from the pressing supervisor of that employee. It will central to the exact fact as employee generally more than abundant themselves.

It is experimental that the staff strong some alarm in their attention hide they are and escape to provide the true data, they are also future from a direct supervisor, so the future investigators can inquire the behavior methodologies of the exact employee from the generations of that worker as the classmates are well aware of their partner.

Upcoming Scholars can prepare a qualitative investigation to explore the idea that why staffs engage in and how staff's apparent that the use of appropriate constant rules of HR department.

The cross-sectional facts do not certificate us to entirely realize the idea that up to what scope these features cause in the dimension of performance and assessment of performance. For fully recognize the issues that move the, there must suitable principles for worker promotion.

### **Recommendations for Practitioner's**

The strategic goals and task of organization can be identified. Overall performance evaluation criteria can be defined as per determined specific rules and regulations. Pre-defined the degree criteria satisfaction. The evaluation hierarchy can be explored and inform to a supervisor. To ensure validate proposed problems of the employee and distributed among the supervisors.

Staff Career development programs can be introduces in higher education sector for the up gradation of employee productivity. The staff and supervisor must know about the proper HR rules and regulations regarding pay and promotion activities and Supervisor must be evaluate on pure merit basis not on basis on biasness. The HR section will be refine the performance appraisal forms as per recommendations by immediate supervisor will meet the criteria of performance evaluation of the immediate supervisors.

### **Drawbacks**

Some drawbacks are also mentioned in this study as staff negligence their agree admission by spending time for individual explanations. Afterward analyzing the study it can be decided that the Supervisor's stop the promotion of employee frequently without any kind of reason on the basis of personal issues. It touches the performance of the employees if complete frequently and for extended period. Many employees are facing disappointing behavior from seniors and adoption of the old type of rules of HR benefits provided to employees in education sectors. They also ignore while evaluation and promotion activities. Most employees in these organizations are badly affected due to sudden changes of rules and policies from HR section especially in autonomous institutes. Some organizations adopt seniority basis policies and some organizations can believe in increasing education of the employees. The employee



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

cannot afford to take the further admission in other universities to improve the education. These universities do not financially support to increase the education. The organization cannot provide leave for education to the employees. The HR Department can adopt new defined rules and regulations regarding the promotions and performance while measuring the performance evaluations. The HR section must support and provide the scholarships plans and financial support program, if they want to improve the education of non-teaching staff in higher education institutions. During the research, it has been found that mostly institutes give chance for Career development and career management and provides the scholarships schemes to Faculty members rather than the non-teaching staff. They are totally neglected while distributing the scholarships for further studies in education Institutions.

### References

- Petruzzellis, L., D'Uggento, A. M., & Romanazzi, S. (2006). Student satisfaction and quality of service in Italian universities. *Managing Service Quality: An International Journal*, 16(4), 349-364.
- Deligero, J. C. L., & Laguardor, J. M. (2014). Work Engagement among Employees and Its Relationship with Work Units' Performance of a Higher Education Institution. *International Journal of Management Sciences*, 3(12), 909-917.
- Strathdee, S. A., Hallett, T. B., Bobrova, N., Rhodes, T., Booth, R., Abdool, R., & Hankins, C. A. (2010). HIV and risk environment for injecting drug users: the past, present, and future. *The Lancet*, 376(9737), 268-284.
- Carayon, P. (1993). Effect of electronic performance monitoring on job design and worker stress: Review of the literature and conceptual model. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 35(3), 385-395.
- Rasheed, M. I., Yousaf, H. D. A. S., & Noor, A. (2011). A critical analysis of performance appraisal system for teachers in public sector universities of Pakistan: A case study of the Islamia University of Bahawalpur (IUB). *African Journal of Business Management*, 5(9), 3735.
- Begum, R. (2016). Human resource planning and practice at Agrani Bank Limited, Kamlapur branch, Dhaka.
- Kipkebut, D. J. (2010). *Organisational commitment and job satisfaction in higher educational institutions: The Kenyan case* (Doctoral dissertation, Middlesex University).
- Pierson, P. (2000). Increasing returns, path dependence, and the study of politics. *American political science review*, 94(02), 251-267.
- Kessler, I., & Purcell, J. (1992). Performance related pay: objectives and application. *Human Resource Management Journal*, 2(3), 16-33.
- Gundling, E., & Zanchettin, A. (2011). *Global diversity: winning customers and engaging employees within world markets*. Nicholas Brealey Publishing.
- Marsden, D. (2004). The role of performance-related pay in renegotiating the "effort bargain": the case of the British public service. *Industrial & Labor Relations Review*, 57(3), 350-370.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Brew, A., & Boud, D. (1996). Preparing for new academic roles: An holistic approach to development. *The International Journal for Academic Development*, 1(2), 17-25.
- Malik, M. E., Nawab, S., Naeem, B., & Danish, R. Q. (2010). Job satisfaction and organizational commitment of university teachers in public sector of Pakistan. *International Journal of Business and Management*, 5(6), 17.
- Darling-Hammond, L. (2004). Standards, accountability, and school reform. *Teachers College Record*, 106(6), 1047-1085.
- Obwogi, J. (2013). *Factors that affect quality of teaching staff in universities in Kenya* (Doctoral dissertation).
- Moses, I. (1987). Educational development units: A cross-cultural perspective. *Higher Education*, 16(4), 449-479.
- Neogi, A., Mondal, A. C., & Mandal, S. K. (2011). A cascaded fuzzy inference system for university non-teaching staff performance appraisal. *Journal of Information Processing Systems*, 7(4), 595-612.
- Casey, R. J., Gentile, P., & Bigger, S. W. (1997). Teaching appraisal in higher education: An Australian perspective. *Higher education*, 34(4), 459-482.
- Aarons, G. A., Sommerfeld, D. H., & Walrath-Greene, C. M. (2009). Evidence-based practice implementation: the impact of public versus private sector organization type on organizational support, provider attitudes, and adoption of evidence-based practice. *Implementation Science*, 4(1), 1.
- Change, S. (2007). ment in Turkey: pillars, perils, and prospects. *Crime, Law. Praxis*, 2, 307-344.
- Hecker, M., Lambeck, S., Toepfer, S., Van Someren, E., & Guthke, R. (2009). Gene regulatory network inference: data integration in dynamic models—a review. *Biosystems*, 96(1), 86-103.
- Lu, J., Zhang, G., Ruan, D., & Wu, F. (2007). *Multi-Objective Group Decision Making: Methods, Software and Applications with Fuzzy Set Techniques (With CD-ROM)* (Vol. 6). World Scientific.
- Hiltz, S. R., & Turoff, M. (1993). *The network nation: Human communication via computer*. Mit Press.
- Hall, E. M. (1998). *Managing risk: Methods for software systems development*. Pearson Education.
- Bolman, L. G., & Deal, T. E. (1991). *Reframing organizations*. San Francisco: Jossey-Bass Publishers.
- Von Krogh, G., Ichijo, K., & Nonaka, I. (2000). *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation*. Oxford University Press on Demand.
- Swales, J. (1990). *Genre analysis: English in academic and research settings*. Cambridge University Press.
- Amin, A., & Cohendet, P. (2004). *Architectures of knowledge: Firms, capabilities, and communities*. Oxford University Press on Demand.
- McBurnie, G., & Ziguas, C. (2006). *Transnational education: Issues and trends in offshore higher education*. Routledge.
- Wilkinson, R. G., & Marmot, M. G. (2003). *Social determinants of health: the solid facts*. World Health Organization.





## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

- Bovenberg, A. L. (2005). Balancing work and family life during the life course. *De Economist*, 153(4), 399-423.
- Denison, D. R. (1990). *Corporate culture and organizational effectiveness*. John Wiley & Sons.
- Williams, S. L. (2002). Strategic planning and organizational values: links to alignment. *Human Resource Development International*, 5(2), 217-233.
- Emerson, R. M. (1976). Social exchange theory. *Annual review of sociology*, 335-362.
- Mactavish, J. B., & Schleien, S. J. (1998). Playing together growing together: Parent's perspectives on the benefits of family recreation in families that include children with a developmental disability. *Therapeutic Recreation Journal*, 32(3), 207.
- Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of vocational behavior*, 16(3), 282-298.
- Cooper, C. D., & Kurland, N. B. (2002). Telecommuting, professional isolation, and employee development in public and private organizations. *Journal of organizational behavior*, 23(4), 511-532.
- Judge, T. A., Thorsten, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological bulletin*, 127(3), 376.
- Haas, R. H., Nasirian, F., Nakano, K., Ward, D., Pay, M., Hill, R., & Shults, C. W. (1995). Low platelet mitochondrial complex I and complex II/III activity in early untreated Parkinson's disease. *Annals of neurology*, 37(6), 714-722.
- (French, J. R., Caplan, R. D., & Van Harrison, R. (1982). *The mechanisms of job stress and strain* (Vol. 7). Chichester [Sussex]; New York: J. Wiley.
- Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of applied psychology*, 84(1), 123.
- Freyburg, T. (2015). Transgovernmental Networks as an Apprenticeship in Democracy? Socialization into Democratic Governance through Cross-national Activities. *International Studies Quarterly*, 59(1), 59-72.
- Onwe, O. J. (2013). Policies and practice of open and distance learning models in the Sub-Saharan African countries: A literature survey. *American International Journal of Contemporary Research*, 3(8), 122-13.
- NGUYEN, D. N., NGUYEN, M. H., & Hong, T. T. (2016). Employees' Satisfaction on Performance Management Review (PMR) in Navigos Group Vietnam JSC. *SGBED wishes to recognize the following sponsors*, 684.
- Valance S (1999) Performance Appraisal in Singapore. Thailand the Philippines A culture perspective Australian J. Pub. Adm., 58 (3): 78-95.
- Armstrong, M (2006). Key strategies and practical guidelines. 3<sup>rd</sup> edition. Koganpegne. London.
- Armstrong, M (2006). Key strategies and practical guidelines. 3<sup>rd</sup> edition. Koganpegne. London.
- Jordan j (1992). Performance Appraisal Satisfaction and Supervisor's Traits. *Psychol. Rep.*, 66:337-1338.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Wright, M.P. Gardner, M.T. and Moynihan, M.L. The impact of HR practices on the performance of business units”. *Human Resource Management Journal*, vol. 13, nno.3, pp.21-36,2003.

Bashir, S and Khattak, H. R. Impact of selected HR Practices on perceived Employee Performance, a study of Public sector employees in Pakistan. *European Journal of social Sciences*,vol 5, no 4, pp.243-252,2008.

Durkin, J Application of Expert System in the Sciences. *OHIO J. SCI.*, vol.90 no, 5 ,pp 171-179, 1990.

Brown, M., & Heywood, J.S. (2005). Performance appraisal system: determinants and change. *British Journal of Industrial Relations*, 43(4), 659-679.

Brown. M. and Benison, J. (2003). Rated to exhaustion? Reaction to performance appraisal processes *Industrial Relation Journal*. 34(1), 67-81.

Barney, J.B., 1991. Firm resource and sustained competitive advantage. *Journal of Management*, 17(1): 99-120.

Wright, P.M., B.B Dun ford and S.A Snell, 2001. The firm. *J. Management* 27 *J Management*, 27: 701-721.

Brown, M. and J. Benson, 2003. Rated to exhaustion? Reaction to performance appraisal process. *Industrial Relations*. 34(1):67-81.

Brown, Michelle. 2001, Unequal Pay, Unequal Responses? Pay Referents and their implications for Pay Level Satisfaction. *Journal of Management Studies* 38: 879-96.

Bengbu, Roland and jean Tirole. 2003. Intrinsic and Extrinsic motivation *Review of Economics Studies* 70:489-520.

Lazar, Edward P.2000. Performance Pay and Productivity. *American Economic Review* 90:1346-61.

Dazzler G, verkkay B. *Human resource management*. Prentice Hall Delhi, 2009.

Hall B. leadership support for staff development: A School building level model. College of Education. Wayne State University, ERIC Document Reproduction Service No. ED 275-029, Detroit, MI, 1996.

Gordon JR. *A Diagnostic Approach to organizational Behavior* 2<sup>nd</sup> Edition Boston ,Ally and Bacon Inc, 2003.

Benson G, Finegold D, Mohrman SA. You paid for the skills, now keep them: tuition reimbursement and voluntary turnover. *Accad Manage J*, 2004; 47 : 315-31.

Lvancevich, j.M.(2010). *Human Resource Management* 8<sup>th</sup> ed. Boston: Irwin McGraw Hill.

Michel Armstrong (2006), *A hand book of Human Resource Management* (7<sup>th</sup> edition. Jersey, prentice Hall).

J. Rowley, “Motivation and Academics staff in Higher Education”, *Journal of Quality Assurance in Education*, 4(3), 1996, pp. 11-16.

(Cheng, B.S Jiang, D.Y and Relay, J.H (2003) organization commitment, supervisory commitment and employee outcomes in the Chinese context: proximal hypothesis or Global Hypothesis *Journal of organizational behavior* 24(3), 313-334.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Mizikaci, F. (2006). A systems approach to program evaluation model for quality in higher education. *Quality Assurance in Education*, 14(1), 37-53.

Kravchuk, R. S., & Scheck, R. W. (1996). Designing effective performance-measurement systems under the Government Performance and Results Act of 1993. *Public administration review*, 348-358.

Simons, R. (2013). *Levers of control: how managers use innovative control systems to drive strategic renewal*. Harvard Business Press.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Transformational Leadership, Job Autonomy and Employees Commitment in Bank Employees of Lahore, Pakistan**

Arooj Fatima

University of the Punjab, Lahore

Dr. Saleha Javed

University of the Punjab, Lahore

Dr. Shrafat Ali Sair

University of the Punjab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore

Dr. Zia-ur-Rehman Rao

University of the Punjab, Lahore

**Abstract**

This study aimed to investigate the mediating role of job autonomy between perceived integrity of transformational leadership and employee's commitment in the banking sector. The data was collected from employees and managers in the banking sector of Pakistan. The assessment measures used were Fida and Najam Job autonomy scale, Workplace Integrity Scale, and Questionnaire to measure commitment and job satisfaction. The sample size was N=150. Descriptive analysis, regression analysis, pearson product moment correlation analysis and mediation analysis using process macro was used to determine the relationship of variables. The study contributes to the better understanding of leader's integrity, employee's commitment and job autonomy in the banking sector of Pakistan. It provides us with insights into what factors should be taken into consideration to develop an ethical organizational culture that leads to employee commitment and job performance. The study is limited and only applied to the banking sector of Pakistan.

**Keywords:** Transformational Leadership, Employee's Commitment, Job Autonomy, Integrity.

**Background**

Businesses in today's global community must cope with intense competition, which puts immense pressure on them to constantly build and sustain a competitive advantage. (Ekberg, 2017) These pressures have an impact on top management decisions as well as organizational goals, objectives, and policies. In the worst-case scenarios, these judgments have resulted in legal infractions, corporate bankruptcies, and a loss of stakeholder trust in organizational management. (Michael, 2013) Lack of ethics at the workplace can put them at great risk. We can build some strategies to improve compliance to reduce the risk. These efforts can be fruitful to increase the levels of organizational integrity. To develop such a culture in our organizations we need to work on such an ethical awareness approach that encompasses four components: principles, values, purpose, and culture.

The difficult question is how we can integrate these ethical behaviors in our day to day practice and to set up a culture based on ethical behaviors (Kayes, 2007). Leader's integrity is solely focused on



Proceedings

ISSN 2617-8028

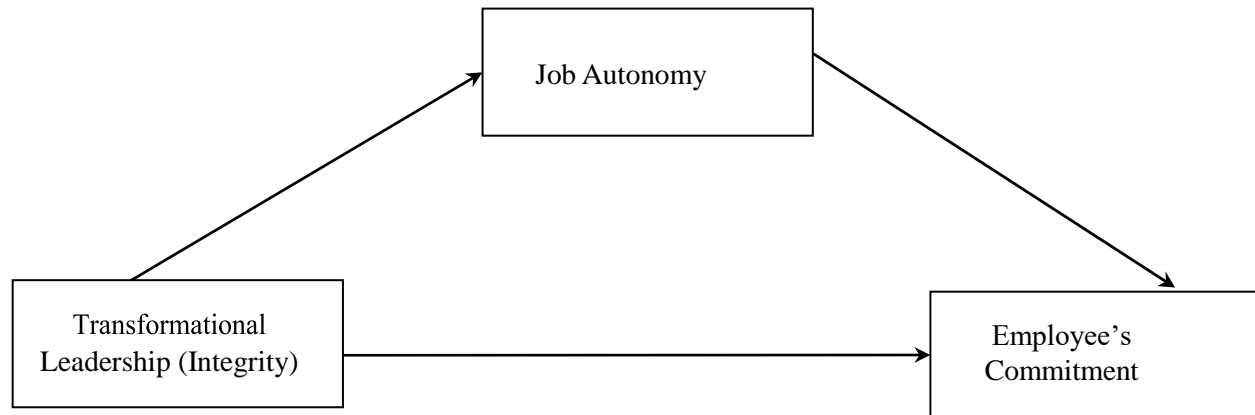
7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

underlying values but it is further expanded to define values and principles explicitly. The values have a central role in an organizational integrity and more precisely defined as “cognitive representations of goals and demands of an organization socially shared with other members”. The idea is expanded to the mission statement which in return underlines the principles and fundamental commitments of an organization. It also highlights the importance of strategy and determines the behaviors that reflect the competence of an organization as values, mission and principle (Ekberg, 2017). Leader's integrity is the measure of ethical integrity of the individuals, ethical quality of organizational interactions including norms, decision making and activities within it (Ekberg, 2017). Transformational leadership is unique leadership paradigm that focuses on morality, motivation, charisma and inspiration. A good transformational leader provides its followers with moral fairness and integrity. To be a successful transformational leader, you must possess one vital trait which is integrity as they perceived to have more integrity than other leadership styles. (Aswegen, 2009).

Transformational leadership and job autonomy are closely interlinked since one of the core objectives of transformational leadership is to empower employees and encouraging them to put their creativity to use (Gözükara & Şimşek, 2015). A follower's capacity and confidence to complete tasks and perform well is driven by encouragement, support, and useful feedback from the leader. Followers will be loyal and committed to organizations where they feel seen, heard, and empowered. Empowered employees show their appreciation by showing more commitment to their respective organizations (Avolio et al., 2004). To develop organizational commitment, it is important to make employees feel more in control of their work, the more impact they think they have on their organization, the greater the organizational commitment (Gillet & Vandenberghe, 2014). When employees are allowed a certain level of autonomy or freedom at work, it encourages them to bring in more new ideas and work can be performed in innovative ways (Lin and Ping, 2016).

When employees are allowed a certain level of autonomy or freedom at work, it encourages them to bring in more new ideas and work can be performed in innovative ways (Lin and Ping, 2016). While recognizing and appreciating the many needs of each follower to fulfil his or her own potential, transformational leaders affect followers' organizational commitment through inspiring loyalty, involving followers in decision-making processes, and fostering critical thinking (Samad, 2012). Studies have found that organizations that allow little to no job autonomy often face issues like demotivated employees, reduced employee commitment, higher sick leaves, higher turnover, employees with somatic health issues and early retirement/disability retirement. However, in comparison, organizations that allow a certain degree of freedom as well as discretion to employees for managing work situations faced less of such issues (Clausen et al, 2021).

## Conceptual Framework



**Figure 1:** Conceptual Framework Transformational Leadership, Employee's Commitment & Job Autonomy

### Method

This research has been designed to study the correlation between transformational leadership and employee's commitment when job autonomy is acting as a mediating variable in the banking sector. Quantitative correlational cross-sectional research design has been carried out to study the relationship between transformational leadership, employee's commitment and job autonomy in the bank sector of Pakistan. Correlational research design has been adopted to conduct the research because it measures the nature as well as the strength of relationship between two variables occurring naturally. The sample is composed of N=150 participants that has been collected from bank employees of Pakistan.

### Assessment Measures

A demographic questionnaire that has been self-constructed was used to get personal and professional information of the participants. The Questions to Measure Commitment and Job Satisfaction (Hayday, 2003) has been used to measure employee's commitment. Fida and Najam Job Autonomy Scale was used to measure job autonomy of the participants. The Workplace Integrity Scale was used to determine the perceived integrity of transformational leadership at the workplace.

### Statistical Analysis

Data was scanned by using the 26.0 version of SPSS. Cronbach's Alpha reliability analysis was used to determine the reliability of scales. To find out the basic information of the demographics, descriptive analysis were conducted. To determine the nature of the association between organizational integrity, organizational commitment and job autonomy in bank employees, Pearson Product Moment Correlation analysis was conducted. Regression analysis was used to analyze whether organizational integrity is the predictor of organizational commitment. Mediation analysis by process macro was run after it to analyze the role of job autonomy as a mediator between organizational integrity and organizational commitment.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Results

### Descriptive Statistics and Reliability Analysis

Descriptive Statistics of Demographic Characteristics of Study Sample (N=150)

	<i>Variables</i>	<i>F</i>	<i>%</i>
1.	Age		
	18-24	4.0	4.0
	25-34	20.7	20.7
	35-44	47.3	47.3
	45-54	26.0	26.0
	55-64	1.3	1.3
	65 or above	.7	7
2.	Gender		
	Male	80.0	80.0
	Female	20.0	20.0
	Others	-	-

Table 1 shows descriptive statistics of demographic characteristics of study sample

Descriptive Statistics and Reliability Analysis for Study Variables (N=75)



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Scales

	K	$\alpha$	M	SD	Range	
					Potential	Actual
EC	27	.89	105.3	11.6	27-135	10-56
LI	20	.88	94.8	15.36	20-140	77-111
JA	28	.80	108.5	9.80	28-140	66-80

Note:  $\alpha$ = reliability coefficient, k= no. of items in scale, M = mean, SD= standard deviation, EC = Employee Commitment, JA = Job Autonomy, LI= Leader's Integrity

Table 2 shows mean, alpha reliability and standard deviation of the scales. The tables indicate that the alpha reliability of the Commitment and job satisfaction is highest among the scales i.e, .89. The alpha reliability of Workplace integrity scale and Job autonomy scale are .88 and .80 which means these scales are highly reliable to use in the study



**Pearson Correlation Analysis of Variables and Demographics**

The hypothesis stated that there is a relationship between demographics, employee commitment, leader's integrity and job autonomy, to analyze the correlation pearson correlation analysis was applied as shown in table 3.

In the current analysis, duration in organization was found to be positively correlated with LI ( $r = .26$ ),  $p < .01$ . duration in organization was found to be positively correlated with employee's commitment. ( $r = .12$ ),  $p < .05$ . EC is positively correlated with leader's integrity and job autonomy. ( $r = .3, .4$ )  $p < .01$ . Family Background (rural or urban) was found to be significantly negatively correlated LI ( $r = .4$ ),  $p < .01$ . Participant's education was significantly positively correlated with LI ( $r = .30$ ),  $p > .01$ . Age was found to be significantly positively correlated with JA ( $r = .2$ ),  $p < .05$ . Age was found to be significantly negatively correlated with LI ( $r = -.23$ ),  $p < .05$ .

**Independent Sample t-test Analysis**

The hypothesis of the studies stated that gender differences existed among leader's integrity, employee's commitment and job autonomy. An independent t-test was run to test this hypothesis. For the variables the assumption of homogeneity of variables was fulfilled.

Table 4

An Independent Sample T-Test Analysis Showing Differences in Genders Among Workplace Integrity, Employee's Commitment and Job Autonomy Of Bank Employees (N=150)

Variable	Female		Male		t	F	95% CI		Cohen's d
	n=29		n=121				LL	UL	
	M	SD	M	SD					
EC	106.4	7.55	105.0	12.0	.638	.076	-3.14	6.12	0.13
WPI	100.2	12.43	93.7	2.11	2.14	.113	.417	12.7	0.72
JA	108.2	8.25	108.5	-.181	.006	.012	-4.20	3.49	-.05

Note. EC = Employee Commitment , JA = Job Autonomy , LI= Leader's Integrity

Table 4 revealed significant mean differences on LI with  $t(98) = 2.14$ ,  $p < .05$ . Findings showed that females exhibited higher scores on LI ( $M = 100.2$ ,  $SD = 12.43$ ) compared to the male employees ( $M = 93.7$ ,  $SD = 2.11$ ). The value of Cohen's d was 0.72 ( $< 0.50$ ) which indicated a large effect size. Findings also revealed significant mean differences on EC with  $t(98) = .638$ ,  $p < .05$ . Findings showed that females exhibited higher scores on job satisfaction  $M = 106.4$ ,  $SD = 7.55$  compared to the male employees ( $M = 105.0$ ,  $SD = 12.0$ ). The value of Cohen's d was 0.13 ( $< 0.50$ ) which indicated small effect size. Findings revealed non-significant mean differences with JA  $t(98) = 0.006$ ,  $p > .05$ . The value of Cohen's d was  $-0.05$  ( $< 0.50$ ) which indicated small effect size.



## Regression Analysis

### Linear Regression Analysis

In this section we used linear regression analysis to determine the relationship between variables. The hypothesis stated that leader's integrity is likely to predict employee commitment in bank employees, to test this we run linear regression analysis.

Table 5.

Linear Regression was run to study that leader's integrity is likely to predict employee commitment . (N=150).

Variables	Model		1B		β	p
	B	SE	CI	95%		
			LL	UL		
LI	.273	.057	.161	.385	.367	.000

Note. N = 150; CI = confidence interval; LL = lower limit; UL = upper limit; LI= Leader's Integrity, EC= Employee Commitment

Table 5 shows the impact of leader's integrity on employee' commitment .The R<sup>2</sup> value of .13 revealed that the predictors explained 13% variance with F (23.0)(β = .067, p < .000). The findings revealed that leader's integrity significantly predicts employee's commitment.

### Hayes Process Macro for Mediation Analysis

In this section we used Hayes process macro mediation analysis to determine the relationship between LI, EC and JA, the mediating variable. The hypothesis stated that organizational integrity is likely to predict organizational commitment in bank employees when JA acts as mediator, to test this we run mediation analysis.

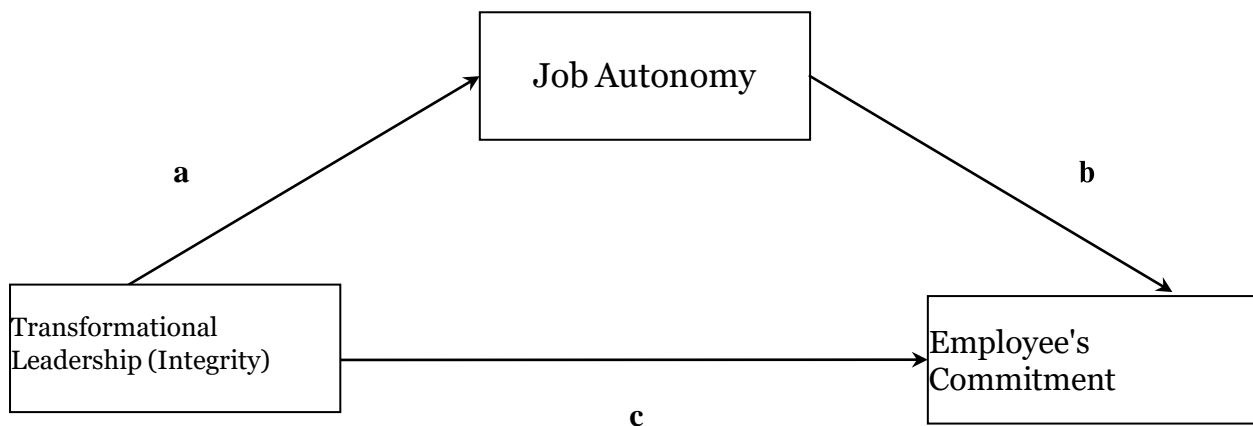
Table 6.

Regression Analysis for Mediation of Job Autonomy between Leader's Integrity and Employee Commitment. (N=150).

Predictor Variable	Outcome Variable	B	95% CI		p
			LL	UL	
<b>Total Effect</b>					
LI	EC	.27	.16	.38	.00
<b>Direct Effect</b>					
LI	EC	.268	.15	.38	.00
LI	JA	.034	.043	-.081	.52
JA	EC	.136	-.04	.31	.13
<b>Indirect Effect</b>					
LI	OC through JA	.004	.043	-.081	.52

Note. N = 150; CI = confidence interval; LL = lower limit; UL = upper limit; LI= Leader's Integrity, EC= Employee Commitment

Table 6 shows the impact of LI and JA on EC in bank employees. The findings revealed that LI has an insignificant impact on JA (b= .034, t=.67, p<.50). LI has a significant impact on EC (b=.268, t=4.7, p< 0.00). JA has an insignificant relationship with EC (b=.136, t=1.5, p<.13). The indirect effect the impact of LI on EC through JA is 0.004. The direct effect of the impact of LI on EC is .268. The total effect is .27. Indirect effect is insignificant therefore the mediation due to JA is small.



Direct effect = .268

Indirect effect = .004





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Summary of Findings**

The results of the research show a significant positive correlation between perceived integrity of transformational leadership and employee's commitment, according to linear regression analysis. Demographic variable education has positive correlation with workplace integrity. Duration in an organization has significant positive correlation with perceived integrity of transformational leadership, job autonomy and employee's commitment. A positive significant positive correlation of employee's commitment with workplace integrity and job autonomy, according to Pearson product moment correlation analysis. Workplace integrity has significant correlation with gender; male's scores are higher than females, and no significant relationship with EC and JA. The direct effect of workplace integrity with employee's commitment is significant. The indirect effect of workplace integrity with employee's commitment in the presence of job autonomy as a mediator is insignificant.

### **Discussion**

An incalculable number of researches have been done at the workplace from the perspective of intra-organizational sources including employees and managers. Many variables have been taken into consideration till yet i.e, performance, job satisfaction, burnout, turnover, excellence etc. Minimal studies conducted combining the variables transformational leader integrity, employee's commitment and job autonomy. Industry has gone through diverse changes from the past several years, the pressure and competition has been increased as well. It also affects the decisions, strategies, policies and objectives adopted by upper management. (Michael, 2013).

The employees have been demoralized due to increased layoffs, downsizing and reengineering. (Brandt,1996).The attainment of organizational goals is largely dependent on the human workforce both quality and quantity matters. Leader's Integrity and employee's commitment related to each other according to the principle of rights. It is stated that employees who are more committed to organization and have integrity develop potential to achieve those goals. (Febrina et al., 2020). Therefore, the current study examined the correlation among leader's integrity, organizational commitment of employee's and job autonomy as a mediating variable.

The findings suggested that leader's integrity is positively correlated with organizational commitment of employees and their relationship is significant. Previous studies also have supported the hypothesis. Febrina et al (2020) found that integrity impacts commitment of an employee undoubtedly, moreover organizational integrity and commitment have a positive impact on performance of an employee simultaneously. In the light of Behavioral Integrity theory, which describes the relationship of positive attitudes such as trustworthiness, commitment, behaviors including turnover, burnout, performances depends on the moderation of effective ethical leadership. (Simons et al., 2012). Consequently, if employees' perception of organization or leaders/managers is interpreted as ethical their chances to stay committed to the organization increased. Simon (2020).

Organizational integrity can lead to desirable outcomes and significant impact on commitment of employees. Combining the impact of leader's integrity and employee's commitment results in better performance, which means achievement of organizational goals and measurement of excellence. Meyers and Allen (1984), the organizational commitment model also suggests that organizational culture and socialization at the workplace has an impact on work experiences such as job scope, justice, and support which in turn impacts



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 turnover intentions, commitment and withdrawal cognition. Specifically, affective commitment plays a huge role in the phenomena. The perception of an employee that the organization is sustaining justice will affect its affective commitment, which binds the employees to stay loyal and committed to the workplace. Employee's commitment has a significant impact on employee's performance and starts building in them by the time they sign a three year official bond. Strong organizational commitment also influences good performance. (Sabit et al, 2021) Current findings are consistent with the results of previous studies. Furthermore, the mediation analysis between the organizational integrity and organizational commitment in the presence of job autonomy (mediator) is insignificant. It means leader's integrity relationship with organizational commitment is not amplified in the presence of job autonomy as mediator. Additionally, we've compared some of the demographic variables to know their relationship with the variables under study such as marital status, monthly income, and duration in the organization. Findings revealed that duration in the organization has a significant relationship with all the variables employee's commitment, leader's integrity and job autonomy, which means the longer an employee stays in an organization the greater level of organizational integrity they will perceive, the more committed they are with the company and the perception of freedom at the workplace is greater. Monthly income has visible correlation with leader's integrity and the relationship with employee's commitment and job autonomy is weak. Age is positively correlated with job autonomy, which means the older you will be, the more freedom you will experience at the workplace. Family background is negatively correlated with leader's integrity. On the other hand, education is positively correlated with the leader's integrity, the higher education you have the greater the chances that you will be able to understand the ethical system of the organization and the better perception the employee will have about it. Lastly, the perception of leader's integrity has a significant relationship with family background, it's higher for people with rural background and lower for employees who come from urban areas. The relationship of family background with employee's commitment and job autonomy is insignificant. Family system has no visible impact on the above mentioned variables. Gender differences have also been studied, they have significant relationships with leader's integrity and values are higher for males due to the fact that the ratio of male employees in the bank of Pakistan is higher than the females. While the significance of relationship with employee's commitment and job autonomy is null.

### **Conclusion**

The study contributes to the better understanding of leader's integrity, employee's commitment and job autonomy in the banking sector of Pakistan. The current study caters to the role of these variables specifically in banking sectors. Consistent with the result of previous studies, results of current study showed that leader's integrity has a phenomenal impact on commitment of an employee. It provides us with insights into what factors we should take into consideration to develop an ethical organizational culture that leads to more employee commitment and job performance. Therefore, it is recommended that organizations should operate themselves with integrity and reliability so that they can inspire their employees in the best possible ways. The ethical support should be increased to ensure success of organizational goals. The policies and procedures are devised in such a way that anyone who violates ethical boundaries should be punished accordingly. Because, lack of integrity forbids organizational performance. (Akpana, 2022) The working environment must



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 facilitate the employees in such a manner that they feel associated with the organization, it will aid their commitment level. The communication channels should be open therefore management could have a relationship of trust with their employees. Ethical managers can increase the commitment of employees by working on their productivity. Akpana & Amanda (2022) reported that to ensure growth and satisfaction at the workplace, policy makers and managers should uphold higher levels of integrity. The employees with strong integrity have more commitment with the organization by complying with the rules, code of conducts, personal values and beliefs. Therefore, they have to promote integrity inside as well as outside the organization. Sabit et al (2021) stated that the regulation of organizational commitment is done by internal policies, and should be evaluated from time to time. It is proven by small turnover in the organization.

Leader's integrity has a significant impact on employee's performance and commitment, therefore it is recommended that all the compartments of an organization should be responsible for the actions they take which will add value to the organization. Additionally, the integrity values should always obey for the achievement of organizational goals. Likewise, the organizational commitment has a positive correlation with marital status of the employee.

### **Limitations**

Although the study has revealed some important findings, it still possesses some limitations. The data were collected from only bank employees in Pakistan, which means we've time and capital constraints. The small size was small which also limits its generalizability. The applicability of the findings on other areas in Pakistan is unknown because the data was collected from Lahore only. The results cannot be applicable to the banking sector of other countries as well. Transformational leadership has more dimensions other than integrity as well but this research is focusing on the ethical aspect only.

Additionally, the scales that were used for the data collection were developed according to the western context, except Fida and Najam Job Autonomy Scale and culture differences were not addressed. There is a possibility that western and Asian cultures have different notions regarding integrity, commitment and autonomy at the workplace. Therefore, general interpretations regarding these variables among people of different countries is not predictable.

### **Suggestions**

The data was small and we've performed it only in one location in Pakistan, it is suggested that future researchers should work with a large sample population and at various locations to enhance its generalizability. For more comprehensive findings, the future research should be conducted by using scales that have been developed in Asian culture if we want to assess the variables in Asian countries or we should develop qualitative research to get more insights of currently studied variables. The scales have been filled by the employees at the request of the bank manager, there are chances that employees have performed the questionnaire in the most positive view, because of the unconscious pressure of the boss to sustain a positive outlook regarding their organization irrespective of their true feelings. Therefore, future studies should develop more comprehensive non-projective techniques to know their true intentions.

It is important to notice that the participants of the study have close friends at the workplace,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 which indicates social support at the workplace. Cordes & Dougherty (1993) reported that closed-friendships at the workplace are considered as social support that highlights good relationships with colleagues, and there is possibility that it can minimize turnover intentions, enhancing commitment with the organization. Future studies should focus on the variable of social support from coworkers as moderator or mediator instead of job autonomy, as it has potential to influence the organizational integrity and organizational commitment.

Moreover, future researchers should work with other variables such as social support, work culture, work environment, technology, and communication between the departments to explore the phenomena further.

### **Abbreviations**

Gen, Gender, MS, Marital Status, FS, Family System, MI, Monthly Income, Edu, Education, BF, Family Background, JT, Job Title, DO, Duration in organization, EC, Employee Commitment, JA, Job Autonomy, LI, Leader's Integrity.

### **Competing Interests**

The author claims that there were no competing interests

### **Ethics approval and consent to participate**

The proposal was approved by the Departmental Directorial Program Committee (DDPC) of Institute of Applied Psychology, University of the Punjab Lahore. Before, using the assessment scales permission will be taken from their authors. Informed consent was taken from the participants after debriefing them the purpose and nature of the research. Participants had the right to withdraw if they considered their participation a threat to their stability.

### **Funding**

No funding was received for the study.

Availability of data and materials

All data and software used for the supporting of this article are available at the author's email aroojfatima08179@gmail.com.

### **Acknowledgements**

The author would like to thank Dr. Saleha Javed & Dr. Shrafat Ali Sair for useful discussions, suggestions and guidance throughout the study process. The support from the institute is also acknowledged.

### **References**

- Akpana, E. A. (2022). Managerial Integrity and Employee Commitment in Organization. *Research Journal of Management Practice*. <https://www.ijaar.org/articles/rjmp/v2n1/rjmp-v1n12-Dec21-p11214.pdf>
- Febrina et al. (2020). The Influence of Integrity and Commitment Organizational on Employee Performance. *International Journal of Research and Analytical Reviews*. [http://www.ijrar.org/viewfull.php?p\\_id=IJRAR200182...](http://www.ijrar.org/viewfull.php?p_id=IJRAR200182...)
- Kayes, D. C. (2007, February). Building organizational integrity. *Business Horizons*, 50(1), 61-70. <https://doi.org/10.1016/j.bushor.2006.06.001>
- Michael, A. E. (2013). Integrity in Organizations. In *Pursuing Organizational Integrity to Create Humanistic Organizations* (pp. 19–39). 10.1057/9781137280350\_2





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Sabit et al. (2021, September 16). How Leadership and Integrity Affect Employee Performance with Organizational Commitment. <https://doi.org/10.7777/jiemar.v2i5.208>

Simons, T. (2012). Revisiting Behavioral Integrity: Progress and New Directions After 20 Years. *Annual Review of Organizational Psychology and Organizational Behavior*. <https://doi.org/10.1146/annurev-orgpsych-012420-062016>

Clausen, T., Pedersen, L. R. M., Andersen, M. F., Theorell, T., & Madsen, I. E. (2021). Job autonomy and psychological well-being: A linear or a non-linear association?. *European Journal of Work and Organizational Psychology*, 1-11.

Lin, J. T. P., & Ping, N. C. L. (2016). Perceived job autonomy and employee engagement as predictors of organizational commitment. *The Undergraduate Journal of Psychology*, 29(1), 1-to.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **The Factors that Contribute to the Effectiveness of Internal Audit in Power Sector Pakistan**

Muhammad Asif

University Of Veterinary and Animal Sciences, Lahore

Dr. Muhammad Imran

University Of Veterinary and Animal Sciences, Lahore

### **Abstract**

The establishment of IA function is important as an essential internal assurance mechanism in public financial controls and as a tool for monitoring and evaluating financial management activities in government agencies. In addition it will assist government organizations to achieve accountability and integrity, improve the implementation of government programs and develop confidence among citizens and stakeholders as well as to cater any risk of mismanagement of public fund. This study investigates the factors that contribute to the effectiveness of internal audit in the Pakistan power sector. It is to determine the auditors' perception toward the effectiveness of internal audit work, influenced by the quality of audit work in order to perform in an effective manner as control instrument in public financial management. It also aims to determine the relationship between factors that contribute to the effectiveness of IA works in promoting better transparency and integrity of public management. The scope of this study covers the internal auditors that work in electricity distribution companies (DISCOs) WAPDA Pakistan. This study employs a cross sectional survey to investigate the effectiveness of internal audit. Several statistical techniques such as the descriptive statistic, correlation and regression analysis were used to analyze the data from the survey. The result of the study showed that there were significant positive relationships among the factors analyzed in this study such as auditor competency, auditors' independence and objectivity, and management support to the effectiveness of internal audit. Thus, the effectiveness of internal audit will depend strongly to the attributes of the factors analyzed in this study.

**Keywords:** Audit Committee, Performance of Audit Work, Public Financial Management, Competency, Independence, Objectivity, Management Support and Effectiveness of Internal Audit.

### **Introduction**

There is general concern the Pakistan public over the effective and transparent Public Finance Management (PFM)/ (Ministry of Finance Division regarding the use of public money. Every year government has involved in collecting and spending hundreds of billion rupees of public money through the FBR and PRA for government program and activities. This revenue and expenditure may constitute the main factor for economic growth stimulation of the country. Due to this huge money involved, government need efficient and effective financial management authority to functioning with accountability and due diligent conforming to the stipulated rules and regulation and other instruction pertaining to financial management. So, all government ministries, departments and agencies are supposed to maintain the accuracy and reliability accounting record for the purpose of auditing and future use.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

All transactions should be properly authorized, executed and recorded. Funds are expended for legitimate purposes in appropriate ways and financial record reflect true and fair organization's financial condition. Sound financial management control should be in place which includes allocation of the funds according to stipulated objectives, clear rules of responsibilities, ensuring the expenditure according to the set budget and procedures. The government is aware that high quality of financial management will lead to the success of government programs and activities. Therefore, to further enhance the credibility of PFM, the government has established the Internal Audit (IA) Unit in many government departments and agencies. The establishment of IA unit and governing the tasks and responsibilities of internal auditing in the public sector and as an internal control mechanism in government agencies to look into the financial management integrity and value for money expenditure to the government program and activities, irregularities in spending public money have been highlighted by the Director General Audit Power (D.G Audit Pakistan) in his annual report.

Some of these weaknesses and irregularities involve serious violation of established financial management guidelines and procedures such as poor planning of procurement, equipment's supplied, work done and services rendered not in accordance with the original specification, cost overrun due to delays in project completion, improper payment made for equipment not supplied, work not done and services not rendered, equipment and good procured at a much higher cost than market value, procurement not done according to established regulations. Thus the role of IA unit is to determine that internal control is in place by reviewing policies and practices in the organization in order to avoid loss of financial resources, noncompliance and also to provide reasonable assurance that public money has been spent in an efficient and effective manner. Based on the government emphasize on IA function, audit services can no longer move out of their customary ways of thinking and common work. Audit services also can help organization for the success of better financial management in public service by playing the effective and efficient roles to promote better governance in managing public money. The research examined on what factors that contribute to the effectiveness of IA in order to perform their duties effectively and indirectly can assist the public sector in managing the public resources efficiently. Factors such competency of the auditors, independence and objectivity of Internal auditors and management support may be the causes that affect the effectiveness of IA function.

### **Literature Review**

Auditing is originally a financial management concerned with assessing practice for the internal financial status of the organization and the evaluations of the financial performance of the organization. After the revolution and beginning the 21<sup>st</sup> century the reporting practice of auditors, which involved submitting reports of their duties and findings, was standardized as the Independent Auditor's Report. Since then, the auditing practices have evolved over the years and develop into the broader aspects to become into a field of fraud detection and financial accountability. It also provides feedback on organization financial information and reporting. It also becomes a tool for an analysis of any fraudulent activity, potential and actual within the organization.

There are a number of researches had been done in the area of the IA in private and public sector. The fact that effective IA can contribute to the significant impact to the quality of management has raised the interest for researchers to explore into this matter. Effectiveness of IA will contribute to the effectiveness of the client and the organization as a whole [3].



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The IA findings and recommendations are clearly crucial to the management of public office to follow through and immediately rectify the problems in the organization. Mihret & Yismaw [6] suggested public sector organizations are required to have an internal audit function to support effective management in managing public funds. So many findings from the research done linked the effectiveness of the internal auditor contribution to effective management and internal control of the agency. According to Okafor & Ibadin [7] that the internal audit exercises a critical role in improving corporate governance in organizations.

### **Auditors competency**

Competency can be relate to the ability of an individual to perform a job or task properly base on the educational level, professional experience and the effort of the staffs for continuing professional development. Auditors' competency determines the effective auditing in the organization. It contributes to the ability of the auditors to perform the systematic and discipline audit approach to improve the effectiveness of IA. Mihret & Yismaw [6] concluded in their study that IA office constantly face the problem of low technical staff proficiency and high staff turnover, which would limit it capacity to provide effective service to management. Competency of auditors determines the quality of the audit work performed in an organization. Competency is measured in terms of academic level, experience, skill and the effort of the staffs for continuing professional development. Competency determines the efficiency of the auditor in setting a systematic and disciplined approach to evaluate and improve the effectiveness of the organization's activities and financial management as well as governance processes.

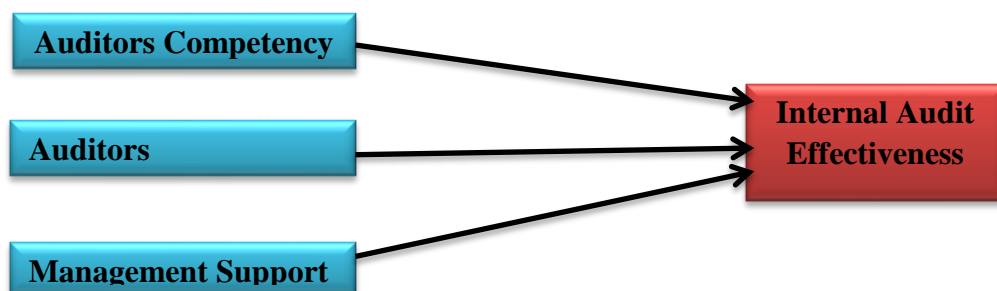
### **Auditors Independency**

The other factor that may contribute to the effective government audit activities is the need of organizational independence and objectivity which can allow the audit activity to conduct work without interference by any party for the audit task. The independence and objectivity of internal auditing is with respect to both assurance services and consulting for the organization. Independence and objectivity are closely related where the freedom from conditions that may threaten objectivity and no significant quality compromises are made during rendering the audit service [4]. In fact, the audit activity should have sufficient independence from those it is required to audit so that it can both conduct its work without interference and be seen to be able to do so [5]. This is very crucial element in conducting audit because the auditors can access to any document relating to the audit work without favour and fear. This will make the auditors provide the objective report and reliable professional judgment on the auditing work to achieve the mandate given to them with integrity. Independence of auditors would not be considered to be impaired if the auditors do not appear to act in a capacity equivalent to a member of client management or as an employee [2]. In certain extent there is a confusion of the role of IA as internal auditors are part of the management team and at the same time to independently evaluate management's effectiveness and efficiency. However, in more recent years, there has been heightened interest in issues associated with the independence and objectivity of internal audit. This could affect the effectiveness of internal auditing as even though internal auditor are charged with upholding the best interests of their employer, they may be reluctant to counter management, regardless of consequences [8].

### Management support

The support and commitment of management also have the certain impact to make sure IA is functioning effectively. The success of IA function will depend on the strength of management’s support for the auditing process. They have to accept the fact that the IA process is just as critical and important activity as any other process within the organization. Some study found that without management approval, support, and encouragement, the IA audit process is likely to face failure and worse – time and money wasted. Mihret & Yismaw [6] on their study also found that IA recommendations are not afforded enough attention. Though the audit reports are generally well prepared, they do not separately highlight the status of past audit results and they could be presented in a more consistent way. Besides, the audit evidence is attached to the reports. This provides a bulky appearance of the audit reports and reduces readability. The distribution of the audit reports is limited where copies are not provided to other senior management officers to which related to audit report. Their study also concluded that management supports to internal audit as a determinant of internal audit effectiveness.

**Fig. 1: Shows the research framework for this paper.**



### Methodology

Pakistan Government had established their IA departments. The DG Audit is responsible for the monitoring and coordinating the operation of IA Department to all DISCOs (WAPDA). Data collections from the auditors of all DISCOs, the questionnaires were distributed randomly to the IA Department of all DISCOs located in Pakistan through the IA head of the Department. Out of this number the total of 330 questionnaires were distributed through the IA department head to the related DISCOs which constitute 51.56% of the total population. The questionnaires are divided into five sections which are demographic profiles of the respondents, auditor competency, independence/objectivity of internal auditors and management support. The items asked in the questionnaire are developed based on a previous study approach by Zeleke Belay [9] and Aaron Cohen & Gabriel Sayag [1]. Certain modification has been made to the questionnaires accordingly as to accommodate with this study objective. The independent variables were measured on a five-point Likert scale of: Strongly disagree = 1, disagree = 2, neither agree nor disagree = 3, agree = 4, strongly agree = 5.





**Results**

The sample size was 330 IA auditors of which the returned response was 191 or (57.9%). Table 1 shows the general demographic profile of the respondents. It depicts that most of the respondents were females (57.1%). In addition majority of the respondents (65.0%) are at the age of below 39 years old. (83.2%) of respondents are married. (94.3%) holds tertiary level education with diploma, bachelor or master degree. The table also shows that most respondents are at the grade of middle managers and below (86.3%). On having any affiliation to a professional body only (28.3%) were members to either national or international body Interim of auditing experience (57.6%) has experience 10 years and below. On income, majority of the respondents (83.2%) were from the income group that earns less than Rs.50,000/ per month. table 2 shows the Chronbach’s Alpha for all variables, Kline [10] indicated that a value of 0.7 Cronbach’s Alpha or higher is considered acceptable. The statistics show that all variables exhibited values ranging 0.722 to 0.835, which suggested that the data are reliable and consistent with acceptable research standards.

Therefore, a bivariate correlation was undertaken between the independents and dependent variables. It was hypothesized that a positive relationship would exist between auditors’ competency and Effectiveness of IA and this is rightly evidenced where  $r = 0.640$ . It was hypothesized also that the Independence/objectivity of internal auditors has positive relationship with IA effectiveness and the result of Pearson Correlation indicated that  $r = 0.602$  (See Table 3).

**Table 1: Respondents Demographic Profile**

	Respondents’ profile	Frequency	%
Gender	Male	82	42.9
	Female	109	57.1
Age	20 - 29	49	25.7
	30 - 39	75	39.3
	40 - 49	37	19.4
	50 - 59	30	15.7
Marital Status	Single	28	14.7
	Married	159	83.2
	Others	4	2.1
Education Level	Secondary	11	5.8
	Diploma	84	44.0
	Bachelor/ACCA	89	46.6
	Master/CA	7	3.7
Grade of Services	BPS-12 – BPS-15	129	67.5
	BPS-16 – BPS-17	36	18.8
	BPS-18 – BPS-19	24	12.6
	BPS-20 & Above	2	1.1
Member of Professional	CA	21	11.0
	ICMA/ACCA	33	17.3





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Body	None	137	71.7
Auditing Work Experience	Less than 5 years	69	36.1
	5 – 10 years	41	21.5
	10 – 15 years	36	18.8
	15 – 20 years	16	8.4
	More than 20 years	29	15.2
Income level	Rs. 50,000 – Rs. 100000	74	38.7
	Rs. 1,00001 – Rs. 2,50000	85	44.5
	Rs. 2,50001 – Rs. 300000	30	15.8
	More than Rs.300000	2	1.0

**Table 2: Reliability Analysis for Independent and Dependent Variable**

Variable	No of Item	Cronbach's Alpha
Auditors Competency	06	0.722
Auditors Independency	10	0.778
Management Support	10	0.835
Management Support	10	0.835
Internal Audit Effectiveness	06	0.731

**Table 3: Pearson Correlation**

Variables	Mean	SD	1	2	3
Auditor's Competency	4.1466	.4845			
Independence/4.0073	4.0073	.4468	.662**		
Objectivity of IA					
Management Support	4.0471	.4601	.724**	.703**	
Effectiveness of IA	4.1291	.4328	.640**	.602**	.659**



### **Discussion, Conclusion and Recommendation**

From the previous section, the result indicated lack of qualified, skill and experience of the auditors in internal audit department may cause the delay in auditing work. From the profile of the respondents only 32.5% of the respondent are from professional group of service and the rest are from supporting group of service. From the response only half of the respondents (50.3%) are poses the degree holder and above and the rest are from diploma holder and below. Furthermore, most of the respondents (57.6%) do have less than 10 years' experience in auditing. With all these fact, it can be assumed that internal auditors working in public sector have relatively still lack of qualified, skill and experience of the auditors. This finding also support by Zeleke Beley [17], that organizations have problems of human resource by not having sufficient staff, non- existence qualified staff, insufficient of skill and experience, inflexible staffing strategy which contribute to the set back to the effort of strengthening internal audit function in the organization.

Pearson Correlation statistic found that there are significant positive correlation between auditor competency, independence/objectivity of IA and management support to the effectiveness of IA. The finding indicates the greater of IA effectiveness will depend to auditors' competency and management support. As such any negative factor that affected to these factors will give a significant change in the effectiveness of IA. Krisnamoorthy [1] concluded that it is futile to attempt a rank ordering of the three factors of objectivity, work performance and competence are interrelated and no single factor can be used in isolation to make an overall evaluation of the strength of IA function. Management support is the most influencing factor among the factors that contribute to the variation of quality audit work and this obviously crucial factor to the effective IA function. The finding is collaborate with Aaron Cohen & Gabriel Sayag [2] who's found that the support of management is almost crucial to the operation and success of IA. It may even be that all the other determinants of IA effectiveness derive from the support of top management, given that hiring proficient IA staff, developing career channels for IA staff, and providing organizational independence for IA work are all results of decisions made by top management. However, not all of these factors are under internal auditors' control. Among controllable factors, the most relevant deal with competence and professional proficiency of internal auditors. Some attributes beyond the control of public internal auditors. As to conclude, the effectiveness of IA function was perceived to be quite high even when there certain low agreement to the certain factors being analyzed.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### References

- C. Aaron and S. Gabriel. "The Effectiveness of internal auditing: An empirical examination of its determinants in Israeli organisations," *Australian Accounting Review*, **20**(54), Issue 3, 2010.
- B. J. Cooper, P. Leung, and Clive M.h. Mathew. "Benchmarking – A comparison of internal audit in Australia, Malaysia and Hong Kong," *Manegerial Accounting Journal*, vol. 11/1, pp 23-29, 1996.
- B. J. Cooper, P. Leung, and Clive M.h. Mathew. "Benchmarking – A comparison of internal audit in Australia, Malaysia and Hong Kong," *Manegerial Accounting Journal*, vol. 11/1, pp 23-29, 1996.
- A. O. Unegbu and M. I. Kida. "Effectiveness of internal audit as instrument of improving public sector management," *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, **2**(4):304-309,2011.
- A. O. Unegbu and M. I. Kida. "Effectiveness of internal audit as instrument of improving public sector management," *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, **2**(4):304-309,2011.
- D. Caplan and M. Kirschenheiter. "Outsourcing and audit risk for internal audit services," *ContemporaryAccounting Research (Fall)*, pp. 387-428, 102, 1999.
- M. Dittenhofer. "Internal auditing effectiveness: An expansion of present methods," *Managerial Auditing Journal*, vol. 16/8: 443 – 450, 2001.
- M. Dittenhofer. "Internal auditing effectiveness: An expansion of present methods," *Managerial Auditing Journal*, vol. 16/8: 443 – 450, 2001.
- Institute of Internal Auditors (IIA). (1999). Definition of Internal Auditing, [Online]. Available: <http://www.theiia.org/guidance/standards-and-guidance/ippf/definition-of-internal-auditing/>



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Factors influencing individual behavior to adopt e-wallet services in Pakistan**

Dr. Samar Rahi

University of the Punjab

Humaira Sajid

University of the Punjab

Dr. Talat Islam

University of the Punjab

Dr. Muhammad Usman

University of the Punjab

Fiza Mubbsher

Kaizen High School Lahore

#### **Abstract**

E-wallet is the latest technology approach in the field of e-commerce for conducting cashless transactions to merchants with minimum restrictions. However, consumers are reluctant to adopt electronic wallet services due to confidentiality, security and fear of theft of personal information. Researchers have revealed that e-wallet is an effective and safe mode of payment and is easy to use. The objective of this research is to find factors that motivate individuals toward adoption of e-wallet by building trust. Therefore, the impact of technology acceptance and theory of planned behavior on attitude toward electronic wallet service is studied which ultimately leads toward adoption. The study is based on primary research design with quantitative data analysis approach. Data will be collected from 250 respondents through questionnaire. The convenience sampling approach will be employed for data collection. The model and its relationship will be test through structural equation modeling through Smart PLS software. The study is significant as it increase customer's knowledge about e-wallet and overcome security issues.

**Keywords:** Technology acceptance model, Theory of planned behavior, Attitude toward e-wallet, Intention to adopt e-wallet, Smart phone addiction.

Paper type: Conference paper

#### **Introduction**

E-wallet is a mode of advanced mode of digital payment, which is basically the app in mobile phone through which users can do online payment transactions through their bank account, by entering phone number, email or scanning QR code (Singh, Srivastava, & Sinha, 2017). Internet banking is a feasible mode to conduct transactions through which users can conduct banking transactions quickly and easily and from any place (Gu, Lee, & Suh, 2009). E-wallet is more advance mode to conduct transactions and do small payments to merchants through online mode.

Though e-wallet customers can do cashless transactions with minimum restrictions. Digital wallet gradually replace traditions leather wallet and plastic cards like, ATM card, debit cards



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 etc. (Leong, Hew, Tan, & Ooi, 2013; Rahi, Alghizzawi, & Ngah, 2022; To & Trinh, 2021). In the changing world, especially after COVID-19 there is a need to introduce a way to conduct transactions that can minimize physical connection. To tackle this issue WHO suggest to use digital money (Brown, 2020). Digital wallet or mobile wallet is the most advanced and feasible mode of payment to replace physical money or digital card.

In Pakistan there are around 7 million users of internet banking and 11 million users of mobile banking but the volume of e-wallet users is very low. Although payment through e-wallet is more feasible with less restrictions but in Pakistan customers are reluctant toward using e-wallet. This is the main problem which is may be due to the increasing online fraudulent activities and customer's resistance toward new technology adoption.

The paper will help researchers and companies to overcome their perception of risk toward e-wallet and enhance their perception about ease of use and usefulness about e-wallet. The objective of the research is to build positive attitude of individuals toward e-wallet through technology acceptance model and theory of planned behavior. Other objective of the research is to attract more smart phone adductors toward e-wallet so that they can help to attract more customers and help them to perceive positive outcomes of e-wallet more positively than its negative outcomes.

### **Literature review**

This section involves the detailed overview of all the variables involve in the study along with proposed relation in relation to e-wallet will be discussed.

### **Technology Acceptance Model (TAM)**

TAM (Alalwan, Baabdullah, Rana, Tamilmani, & Dwivedi) model was given by (Davis, Bagozzi, & Warshaw, 1989). TAM is the most valued model to investigate about individual's innovative behavior toward technology adoption (Davis et al., 1989). Perceived ease of use (EUS) and perceived usefulness (PUS) are the two most important antecedents of TAM but not enough significant factors to investigate individual attitude and adoption toward e-payment services. To overcome this inadequacy, the researches includes perceived enjoyment (PEN) (Bruner II & Kumar, 2005; Rahi, 2022a; To & Trinh, 2021) and perceives credibility (PCD) (Shaw & Kesharwani, 2019; Yang, Liu, Li, & Yu, 2015) in TAM to explain attractiveness of individuals toward e-payment services. So, the study includes PEN and PCD in TAM to better explain attitude of individuals toward e-wallet.

### **Perceived Usefulness (PUS)**

PUS is the most important antecedent of TAM, which is defined as the belief individuals that using a particular technology, app or new website increase the performance of individuals in the society (Davis, 1993; Redzuan, Razali, Muslim, & Hanafi, 2016). PUS positively impact on individuals a to adopt new technology, so it is more related to productivity. When the new technology will be more productive, it impact more positively on individual attitude and behavior for actual usage of particular technology (Davis et al., 1989). PUS is the important motivator to influence of individual intention to adopt e-banking (Changchit, Lonkani, & Sampet, 2017), online shopping (Liu & Forsythe, 2010), e-textbook (Baker-Eveleth & Stone,





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 (2015), e-learning (L. Wang & Yi, 2012), e-money (Aji & Dharmmesta, 2019) and e-payment services (Tran & Corner, 2016). So, hypothesis of the study is:

**H1:** Perceived usefulness impact positively on attitude of individuals toward e-wallet.

Perceived ease of use (EUS)

EUS is basically the sense of individuals that new technology is easy (Davis et al., 1989), and their amount of physical and mental effort exerted to use new technology (Davis, 1993). When new technology is easy to use it attract individuals more positively toward adoption (Teo, Lim, & Lai, 1999; Teo & Pok, 2003; Yu, 2012). Ease of use and sense of individuals to exert minimum effort toward a particular option has positive relation with attitude of individuals to adopt it (To & Trinh, 2021). EUS significantly impact on mobile banking (Abbad, 2013), online shopping (Liu & Forsythe, 2010) and mobile wallet (D.-H. Shin, 2009). When e-wallet is easy to use it attract more individuals to adopt e-wallet services. So, hypothesis of the study is;

**H2:** EUS significantly influence on individual's attitude toward e-wallet.

Perceived Credibility (PCD)

PCD is the customer perception about security, privacy about a particular service or new technology and authenticity of supplier (Y. S. Wang, Lin, & Luarn, 2006). Security, risk and trust factors are very important to analyze in order to attract individuals towards a particular service especially in case of mobile banking (Yu, 2012). One of the reason of hesitation of individual toward e-commerce activities is because of security issues. Customers have fear of theft of personal information and loss of identity because of online fraudulent activities. Security is related to supplier or organization providing e-payment services (Lai, 2017). Preliminary studies proves the significant relation between perceived security and intention to adoption of mobile wallet (Garrouch, 2021; Johnson, Kiser, Washington, & Torres, 2018). Service provider need to develop trust among individuals because e-wallet website need personal information of individuals to operate. Past studies found positive relationship between trust and behavioral intention of consumers (Abbad, 2013; Rahi, 2022b; D. H. Shin, 2008) especially in case of online services (Jarvenpaa, Tractinsky, & Saarinen, 1999). A study on e-government services in UAE found a significant relationship between attitude, trust and confidentiality with e-government service adoption (Rodrigues, Sarabdeen, & Balasubramanian, 2016). So, in case of e-wallet it is hypothesized that;

**H3:** PCD influence significantly on consumer's attitude toward e-wallet.

Perceived enjoyment (PEN)

PEN is the fun and enjoyment customers seek while using a new technology. PEN play a role of intrinsic motivator (Davis, Bagozzi, & Warshaw, 1992) and a crucial factor to determine attitude of individuals toward new technology (Venkatesh, Thong, & Xu, 2012) and internet usage (Teo et al., 1999). When a new innovative technology creates fun among individuals it attracts more individuals (Moon & Kim, 2001; Teo et al., 1999). PEN has positive relationship with individual adoption of new technology (Liu & Forsythe, 2010), internet banking (Abbad, 2013; Bashir & Madhavaiah, 2015), online shopping (Bruner II & Kumar, 2005; Childers, Carr, Peck, & Carson, 2001; Rahi, Othman Mansour, Alharafsheh, & Alghizzawi, 2021) and mobile wallet (Abbad, 2013). So, hypothesis of the study is;



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**H4:** Perceived enjoyment has positive significant impact on attitude toward e-wallet.

### **Theory of planned behavior (TPB)**

TPB is used to predict the individual behavior in different settings. Subjective norms, perceived behavioral control and attitude are the components of TPB used to investigate about the behavior of individuals in different settings.

### **Subjective Norms (SNO)**

Pressure exerted by social factors or community (i.e., peers, friends, family, and colleagues) on a person's attitude to execute or not to execute a particular behavior (Abdullah & Ward, 2016; Ham, Jeger, & Frajman Ivković, 2015; Rahi, Khan, & Alghizzawi, 2021b). According to previous research, peers have a positive impact on individual intention to adopt new technology, attitude toward internet banking (Abbad, 2013), mobile phone delivery applications (Al Amin, Arefin, Alam, Ahammad, & Hoque, 2021), mobile wallet payment (Koenig-Lewis, Marquet, Palmer, & Zhao, 2015), and attraction toward e-wallet (Alalwan, 2020; Rahi & Abd Ghani, 2021). So, it is hypothesized that;

**H5:** Subjective norms have a positive impact on individual attitude e-wallet.

### **Perceived behavioral control (PBC)**

PBC is an individual's perception of the ease and difficulty of a particular action and their confidence in their ability to perform that action (Ajzen, 1991; Gopi & Ramayah, 2007; Rahi, Khan, & Alghizzawi, 2021a). Previous research has shown that perceived behavioral control is the belief that consumers have control over their behavior, which tends to influence behaviors of individuals to attract and perform online transactions (Liao, Chen, & Yen, 2007; Rahi, Ghani, & Ngah, 2020; Ting, Ariff, Zakuan, Sulaiman, & Saman, 2016). PBC influences positively on consumers' attitude in case of online trading (Sharif & Naghavi, 2021), attractiveness toward e-wallet (Chatterjee & Bolar, 2019), mobile banking (Püschel, Mazzon, & Hernandez, 2010) and internet banking (Nasri & Charfeddine, 2012).

**H6:** Perceived behavioral control positively influences attitude toward e-wallet.

Attitude toward e-wallet:

Attitude is one of the factors that define the intentions of people using a particular information system. An individual's intention to use a particular technology is measured more by their attitude than by other factors such as: Feasibility, User Information, Satisfaction (Lee, Ryu, & Lee, 2019). In case of e-payment services (Lee et al., 2019), mobile food delivery application (Al Amin et al., 2021) and mobile banking service applications (Al Amin et al., 2021) and m-banking in Jordan (Al Khasawneh, 2015) mobile wallet (Sheu & Kao, 2010; D. H. Shin, 2008) attitude is the important factor to attract individual intentions to adopt these services.

**H7:** Attitude toward e-wallet directly influences consumer intention toward adoption of e-wallet.

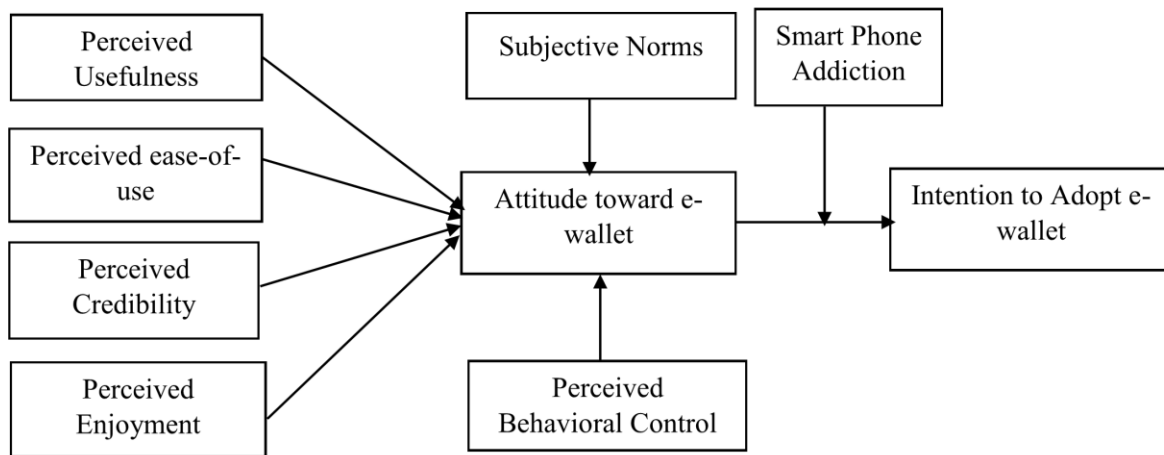
### **Smart Phone Addiction (SPA)**

Technology addiction is the behavioral addiction of individuals and their attraction toward new technology and machines (Griffiths & Renwick, 2003; Rahi, Othman Mansour Majeed, Alghizzawi, & Alnaser Feras, 2019). Smart phone is emerging as the vital component today

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 and a mode of communication so, addiction toward smart phone attract individuals toward internet, computer and technology (Tonioni et al., 2012). Young adults attract more positively toward smart phone (Hawi & Samaha, 2017) and perceive its benefits more positively than its negative disadvantages (Turel, Serenko, & Giles, 2011).

**H8:** Smart phone addiction play a role as a moderator between attitude toward e-wallet and intention to adopt e-wallet.

### Research model





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## Methodology

The methodology discuss overall research paradigm and research technique use in the study. The study execute positivist paradigm, as the theory use in the study is logical and testable (Rahi, 2017). The study uses deductive approach, as the study test the already existing theory, rather than inducing the new one (Rahi, Alnaser, & Ghani, 2019; Rahi, Khan, et al., 2021b). The study uses quantitative method as a survey technique, with data collect through questionnaire (Rahi, 2017; Rahi & Ghani, 2018, 2019). The population of the study are those who have bank account and use mobile banking. The study uses convenience sampling approach to collect data. The research is based on primary research design, as data collected is firsthand through questionnaire. The sample size of the study is 200-250 mobile banking users. The data will be analyzed through Smart PLS software. Close-ended questionnaire will be use to collect demographic information of the respondents. 10-point scale will be use to collect data with 1 represent to strongly disagree and 10 represent to strongly agree.

## Conclusion

After reviewing the literature, it is concluded that PUS, EUS, PCD and PEN significantly create positive attitude of individuals toward e-wallet. When customers have positive attitude toward e-wallet, it creates positive intention among individuals to adopt e-wallet. Smart phone addicts have more positive intention to adopt new technology, and are more technology adapters than less addicts of smart phone. So, smart phone has capacity to moderate the relationship between attitude toward e-wallet and intention to adopt e-wallet. The paper contribute literature by decreasing risk to use e-wallet and overcome security issues, as supplier or company provide security to the users. The practical implication is to help companies to introduce strategies that will help to promote e-wallet. As, State bank also have promotional activities to promote e-wallet by giving air-time of 1 rupee to the individual to conduct transactions through e-wallet.

## References

- Abbad, M. M. (2013). E-banking in Jordan. *Behaviour & Information Technology*, 32(7), 681-694.
- Abdullah, F., & Ward, R. (2016). Developing a General Extended Technology Acceptance Model for E-Learning (GETAMEL) by analysing commonly used external factors. *Computers in Human Behavior*, 56, 238-256.
- Aji, H. M., & Dharmmesta, B. S. (2019). Subjective norm vs dogmatism: Christian consumer attitude towards Islamic TV advertising. *Journal of Islamic Marketing*.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Al Amin, M., Arefin, M. S., Alam, M. R., Ahammad, T., & Hoque, M. R. (2021). Using mobile food delivery applications during COVID-19 pandemic: An extended model of planned behavior. *Journal of Food Products Marketing*, 27(2), 105-126.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Al Khasawneh, M. H. (2015). An empirical examination of consumer adoption of mobile banking (M-banking) in Jordan. *Journal of Internet Commerce*, 14(3), 341-362.

Alalwan, A. A. (2020). Mobile food ordering apps: An empirical study of the factors affecting customer e-satisfaction and continued intention to reuse. *International Journal of Information Management*, 50, 28-44.

Alalwan, A. A., Baabdullah, A. M., Rana, N. P., Tamilmani, K., & Dwivedi, Y. K. (2018). Examining adoption of mobile internet in Saudi Arabia: extending TAM with perceived enjoyment, innovativeness and trust. *Technology in Society*, 55, 100-110.

Baker-Eveleth, L., & Stone, R. W. (2015). Usability, expectation, confirmation, and continuance intentions to use electronic textbooks. *Behaviour & Information Technology*, 34(10), 992-1004.

Bashir, I., & Madhavaiah, C. (2015). Consumer attitude and behavioural intention towards Internet banking adoption in India. *Journal of Indian Business Research*.

Brown, D. (2020). Can cash carry coronavirus? World health organization says use digital payments when possible. *USA Today*. <https://www.usatoday.com/story/money/2021/01>.

Bruner II, G. C., & Kumar, A. (2005). Explaining consumer acceptance of handheld Internet devices. *Journal of Business Research*, 58(5), 553-558.

Changchit, C., Lonkani, R., & Sampet, J. (2017). Mobile banking: Exploring determinants of its adoption. *Journal of Organizational Computing and Electronic Commerce*, 27(3), 239-261.

Chatterjee, D., & Bolar, K. (2019). Determinants of mobile wallet intentions to use: The mental cost perspective. *International Journal of Human-Computer Interaction*, 35(10), 859-869.

Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, 77(4), 511-535.

Davis, F. D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *International journal of man-machine studies*, 38(3), 475-487.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, 35(8), 982-1003.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace I. *Journal of applied social psychology*, 22(14), 1111-1132.

Garrouch, K. (2021). Does the reputation of the provider matter? A model explaining the continuance intention of mobile wallet applications. *Journal of Decision Systems*, 30(2-3), 150-171.

Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country. *International Journal of Emerging Markets*.

Griffiths, M., & Renwick, B. (2003). Misfortune or mismanagement: A study of consumer debt crisis|NOVA. The University of Newcastle's Digital Repository.

Gu, J.-C., Lee, S.-C., & Suh, Y.-H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, 36(9), 11605-11616.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Ham, M., Jeger, M., & Frajman Ivković, A. (2015). The role of subjective norms in forming the intention to purchase green food. *Economic research-Ekonomska istraživanja*, 28(1), 738-748.

Hawi, N. S., & Samaha, M. (2017). Relationships among smartphone addiction, anxiety, and family relations. *Behaviour & Information Technology*, 36(10), 1046-1052.

Jarvenpaa, S. L., Tractinsky, N., & Saarinen, L. (1999). Consumer trust in an Internet store: A cross-cultural validation. *Journal of Computer-Mediated Communication*, 5(2), JCMC526.

Johnson, V. L., Kiser, A., Washington, R., & Torres, R. (2018). Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-Payment services. *Computers in Human Behavior*, 79, 111-122.

Koenig-Lewis, N., Marquet, M., Palmer, A., & Zhao, A. L. (2015). Enjoyment and social influence: predicting mobile payment adoption. *The Service Industries Journal*, 35(10), 537-554.

Lai, P. (2017). Security as an extension to TAM model: Consumers' intention to use a single platform E-Payment. *Asia-Pacific Journal of Management Research and Innovation*, 13(3-4), 110-119.

Lee, J., Ryu, M. H., & Lee, D. (2019). A study on the reciprocal relationship between user perception and retailer perception on platform-based mobile payment service. *Journal of Retailing and Consumer Services*, 48, 7-15.

Leong, L.-Y., Hew, T.-S., Tan, G. W.-H., & Ooi, K.-B. (2013). Predicting the determinants of the NFC-enabled mobile credit card acceptance: A neural networks approach. *Expert Systems with Applications*, 40(14), 5604-5620.

Liao, C., Chen, J.-L., & Yen, D. C. (2007). Theory of planning behavior (TPB) and customer satisfaction in the continued use of e-service: An integrated model. *Computers in Human Behavior*, 23(6), 2804-2822.

Liu, C., & Forsythe, S. (2010). Sustaining online shopping: Moderating role of online shopping motives. *Journal of Internet Commerce*, 9(2), 83-103.

Moon, J.-W., & Kim, Y.-G. (2001). Extending the TAM for a World-Wide-Web context. *Information & Management*, 38(4), 217-230.

Nasri, W., & Charfeddine, L. (2012). Factors affecting the adoption of Internet banking in Tunisia: An integration theory of acceptance model and theory of planned behavior. *The Journal of High Technology Management Research*, 23(1), 1-14.

Püschel, J., Mazzon, J. A., & Hernandez, J. M. C. (2010). Mobile banking: proposition of an integrated adoption intention framework. *International Journal of bank marketing*.

Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5.

Rahi, S. (2022a). Assessing individual behavior towards adoption of telemedicine application during COVID-19 pandemic: evidence from emerging market. *Library Hi Tech*, 40(2), 394-420. doi: 10.1108/lht-01-2021-0030

Rahi, S. (2022b). Investigating the role of employee psychological well-being and psychological empowerment with relation to work engagement and sustainable



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 employability. *International Journal of Ethics and Systems*, 38(2), 266-285. doi: 10.1108/ijoes-12-2020-0200

Rahi, S., & Abd Ghani, M. (2021). Examining internet banking user's continuance intention through the lens of technology continuance theory and task technology fit model. *Digital Policy, Regulation and Governance*, 23(5), 456-474. doi: 10.1108/dprg-11-2020-0168

Rahi, S., Alghizzawi, M., & Ngah, A. H. (2022). Factors influence user's intention to continue use of e-banking during COVID-19 pandemic: the nexus between self-determination and expectation confirmation model. *EuroMed Journal of Business*, ahead-of-print(ahead-of-print). doi: 10.1108/emjb-12-2021-0194

Rahi, S., Alnaser, F. M., & Ghani, M. A. (2019). Designing Survey Research: Recommendation for Questionnaire Development, Calculating Sample Size and Selecting Research Paradigms. *Economic and Social Development: Book of Proceedings*, 1157-1169.

Rahi, S., & Ghani, M. A. (2018). A Structural Equation Modeling (SEM-AMOS) for Investigating Brand Loyalty and Customer's Intention towards Adoption of Internet Banking Paper presented at the Economic and Social Development (Book of Proceedings), 29th International Scientific Conference on Economic and Social.

Rahi, S., & Ghani, M. A. (2019). Integration of DeLone and McLean and self-determination theory in internet banking continuance intention context. *International Journal of Accounting & Information Management*.

Rahi, S., Ghani, M. A., & Ngah, A. H. (2020). Factors propelling the adoption of internet banking: the role of e-customer service, website design, brand image and customer satisfaction. *International Journal of Business Information Systems*, 33(4), 549-569. doi: 10.1504/ijbis.2020.105870

Rahi, S., Khan, M. M., & Alghizzawi, M. (2021a). Extension of technology continuance theory (TCT) with task technology fit (TTF) in the context of Internet banking user continuance intention. *International Journal of Quality & Reliability Management*, 38(4), 986-1004. doi: 10.1108/ijqrm-03-2020-0074

Rahi, S., Khan, M. M., & Alghizzawi, M. (2021b). Factors influencing the adoption of telemedicine health services during COVID-19 pandemic crisis: an integrative research model. *Enterprise Information Systems*, 15(6), 769-793.

Rahi, S., Othman Mansour Majeed, M., Alghizzawi, M., & Alnaser Feras, M. (2019). Integration of UTAUT model in internet banking adoption context: The mediating role of performance expectancy and effort expectancy. *Journal of Research in Interactive Marketing*, 13(3), 411-435. doi: 10.1108/jrim-02-2018-0032

Rahi, S., Othman Mansour, M. M., Alharafsheh, M., & Alghizzawi, M. (2021). The post-adoption behavior of internet banking users through the eyes of self-determination theory and expectation confirmation model. *Journal of Enterprise Information Management*, 34(6), 1874-1892. doi: 10.1108/jeim-04-2020-0156

Redzuan, N. I. N., Razali, N. A., Muslim, N. A., & Hanafi, W. N. W. (2016). Studying perceived usefulness and perceived ease of use of electronic human resource management (e-HRM) with behavior intention. *International Journal of Business Management (IJBM)*, 1(2), 118-131.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Rodrigues, G., Sarabdeen, J., & Balasubramanian, S. (2016). Factors that influence consumer adoption of e-government services in the UAE: A UTAUT model perspective. *Journal of Internet Commerce*, 15(1), 18-39.

Sharif, S. P., & Naghavi, N. (2021). Online financial trading among young adults: integrating the theory of planned behavior, technology acceptance model, and theory of flow. *International Journal of Human-Computer Interaction*, 37(10), 949-962.

Shaw, B., & Kesharwani, A. (2019). Moderating effect of smartphone addiction on mobile wallet payment adoption. *Journal of Internet Commerce*, 18(3), 291-309.

Sheu, D.-F., & Kao, Y.-P. (2010). A study on consumers' behavior model to use electronic purse—applied to TAM model. *Journal of Information and Optimization Sciences*, 31(3), 587-602.

Shin, D.-H. (2009). Towards an understanding of the consumer acceptance of mobile wallet. *Computers in Human Behavior*, 25(6), 1343-1354.

Shin, D. H. (2008). Understanding purchasing behaviors in a virtual economy: Consumer behavior involving virtual currency in Web 2.0 communities. *Interacting with computers*, 20(4-5), 433-446.

Singh, N., Srivastava, S., & Sinha, N. (2017). Consumer preference and satisfaction of M-wallets: a study on North Indian consumers. *International Journal of bank marketing*.

Teo, T. S., Lim, V. K., & Lai, R. Y. (1999). Intrinsic and extrinsic motivation in Internet usage. *Omega*, 27(1), 25-37.

Teo, T. S., & Pok, S. H. (2003). Adoption of WAP-enabled mobile phones among Internet users. *Omega*, 31(6), 483-498.

Ting, O. S., Ariff, M. S. M., Zakuan, N., Sulaiman, Z., & Saman, M. Z. M. (2016). E-service quality, e-satisfaction and e-loyalty of online shoppers in business to consumer market; Evidence form Malaysia. Paper presented at the IOP Conference Series: Materials Science and Engineering.

To, A. T., & Trinh, T. H. M. (2021). Understanding behavioral intention to use mobile wallets in vietnam: Extending the tam model with trust and enjoyment. *Cogent Business & Management*, 8(1), 1891661.

Tonioni, F., D'Alessandris, L., Lai, C., Martinelli, D., Corvino, S., Vasale, M., . . . Bria, P. (2012). Internet addiction: hours spent online, behaviors and psychological symptoms. *General hospital psychiatry*, 34(1), 80-87.

Tran, H. T. T., & Corner, J. (2016). The impact of communication channels on mobile banking adoption. *International Journal of bank marketing*.

Turel, O., Serenko, A., & Giles, P. (2011). Integrating technology addiction and use: An empirical investigation of online auction users. *MIS quarterly*, 1043-1061.

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly*, 157-178.

Wang, L., & Yi, Y. (2012). The impact of use context on mobile payment acceptance: An empirical study in China *Advances in computer science and education* (pp. 293-299): Springer.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Wang, Y. S., Lin, H. H., & Luarn, P. (2006). Predicting consumer intention to use mobile service. *Information systems journal*, 16(2), 157-179.

Yang, Y., Liu, Y., Li, H., & Yu, B. (2015). Understanding perceived risks in mobile payment acceptance. *Industrial Management & Data Systems*.

Yu, C.-S. (2012). Factors affecting individuals to adopt mobile banking: Empirical evidence from the UTAUT model. *Journal of Electronic Commerce Research*, 13(2), 104.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**A study based on time series investigation to determine the factors affecting Foreign Direct Investment in an emerging country like Pakistan**

Sayyed Muhammad Bilal

National University of Modern Languages, Islamabad

Madeeha Rauf

National College of Business Administration and Economics, Lahore

Malik Muhammad Ali

Bahauddin Zakariya University, Multan

Dr. Shrafat Ali Sair,

University of the Punjab, Lahore

Dr. Zia-ur-Rehman Rao

University of the Punjab, Lahore

### **Abstract**

In order to depict the market size in this study's analysis of the many influences on FDI inflows into Pakistan from 1980 to 2022, we used data on financial development, energy consumption, population, inflation rate, and GDP per capita. The Augmented Dickey Fuller, Philips Perron tests, and Autoregressive Distributed Lag (ARDL) procedures were used to determine if the data series was stationary. The study's findings showed that, on the one hand, the considerable and unfavorable effects of financial development on FDI outweighed the significant and beneficial effects of population growth, inflation, GDP, and energy. The results of the current study point to the need for the government to create an environment that would encourage foreign direct investment (FDI) in Pakistan in order to promote economic growth and societal welfare.

### **Introduction**

FDI in the form of capital creates job opportunities for its citizens as well as introduces a wealth of new talents and technology to the host nation (Miyamoto, 2003). The degree of knowledge rises as FDI incorporates more resources and cutting-edge technology. Increased capital stock and technology transfer are the outcomes of this higher knowledge level, which also increases rivalry between domestic and international businesses (İşk, 2013; Le & Pomfret, 2011; Liu et al., 2010; Mazher et al. 2020). Foreign direct investment is the term used to describe investments made by foreigners in our nation. The main goal of foreign investors is to invest in emerging nations where there is greater potential for corporate success and direct investment in economic expansion through the creation of job opportunities. The inflow of FDI is linked to a variety of hazards, including market risk, inflation risk, longevity risk, reinvestment risk, and liquidity risk. By luring additional multinational corporations, host nations that see a consistent influx of FDI also help current businesses become more skilled. For foreign investors, a better and more acceptable work environment is provided through increased human capital and labour skill levels (Ganda, 2021; Zaman et al., 2022). However, multinational corporations also use FDI for training to





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 provide the host nation new abilities and expertise (Faria, 2016; Liu et al., 2016; Yi et al., 2020).

Countries with sluggish development and limited capital creation in the production of technology often produce less than those that make significant investments in R&D. (Sampson et al., 2016). Additionally, the country's infrastructure constantly determines how ready investors are to invest their money. A small number of investors and FDI influx are drawn to a nation with weak infrastructure, an incapacity to assist investors, and unfriendly economic policies. For instance, only a very tiny amount of foreign direct investment was attracted because of the tight FDI laws up until 1991. Pakistan only received a relatively modest amount of foreign direct investment (Haq et al., 2017; Latief & Lefen, 2018; Rehman et al., 2020).

Numerous studies have shown that FDI from throughout the world boosts economic growth by bringing management skills, money, and additional employment possibilities. It also increases government income, boosts productivity, increases competitiveness in local businesses, and does a lot more. Azam (2015), Ahmad and Khan (2018), UNCTAD (2014), Azam (2015), Azam 2019ab; Khan et al., 2019; Gupta & Singh; Balata et al., 2016; Ahmad and Khan, 2018; Azam & Gavrilu, 2015; Khan et al., 2014; Local investors profit from FDI as well as how supplier chains, cost-benefit analyses, and economies of scale draw FDI in. According to the literature, government expenditure boosts employment and national revenue, which in turn boosts economic growth. When the economy is doing well, it draws in foreign investors to make investments (Foster & Magdoff, 2009).

Multinational Corporations (MNCs) like to invest in those nations where the market is sizable and the macroeconomic indicator office table. Market size is correlated with population size and is growing daily; as a result, healthy rivalry amongst host nations drives FDI. Literature has also demonstrated how 18 Worsley altered economic metrics when the economic fundamentals could not handle FDI inflows (Globeran & Shapiro 1999, Dunning 1993, Shapiro & Globermsn 2001). For both emerging and established nations to strengthen and accelerate their economic growth, FDI inflows imports and dynamic features. According to literature, SBI has historically been the largest source of capital inflow into developing economies, contributing through state aid, security, and private lending. In 1997, FDI contributed more than 45% of the net resources in emerging nations, up from 16% in 1986. (Perkins, 2001). FDI is regarded as the source of initial development in emerging nations. Additionally, research has shown that foreign direct investment (FDI) is crucial to the infrastructure, standard of living, capital formation, human resource development, and technological advancement of emerging nations.

Dunning (2002) examined the FDI coming from emerging nations and came to the conclusion that traditional macroeconomic indicators were more important. FDI increasingly includes free companies, communication infrastructure, useful marketable size, expertise, and the efficient use of resources in highly industrialized nations. This Saturday also empirically



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 explains how certain FDI investments and policy decisions affect FDI from advanced and emerging nations to the home country.

International exchange, entry into foreign markets, increased capital and technological advancements, favorable environmental effects, and economic benefits to the host country are all benefits of FDI (Crespo & Fontura, 2007, World Bank, 2014, Romer, 1993). FDI also affects the infrastructure and transformation of the energy industry, the health and education sectors, and the finance and banking sectors (Aizenman & Noy, 2006). The Pakistani government underwent significant restructuring in the 1980s and provided new FDI policies. In 1990, the Pakistani government further amended and liberalized its laws and opened the country's insurance, communications, energy, and agricultural sectors to foreign direct investment. Low as compared to what is occurring in underdeveloped nations due to uncertain political structures and policies (Khan, 1999). According to Paradigm (1993), the cross-method of FDI is influenced by infrastructure, macroeconomic and political stability, and income level. According to Nishat and Anjum (1998), the power of policies, command position, and stable policies are the primary factors that determine foreign direct investment. Mineral resources and technical labor intensity. This study also comes to the conclusion that the amount of FDI depends on the country's humane and effective organizational structure as well as the government policies that are hosting FDI.

Rahman, (2016) reported that being a developing country Pakistan facing a low level of FDI and foreign reserve. Since beginning, Pakistan is receiving foreign debt, due to improper cannot efficient infrastructure. This directly and negatively linked with the development process of the nation. The government is Pakistan totally fail to enhance the inflow of FDI due to political, economic and social factors, especially in the past 15 years. The different study focus on the role and the importance of inflow of FDI in the process of development and economic growth for underdeveloped countries especially in the context of the economy of Pakistan. To determine the inflow of FDI in Pakistan, this current study used different economic variables.

## **Literature review**

Mohammed and Aqeel (2005) in their 2005 study, Aqeel and Mohammed look at the factors influencing FDI in Pakistan between 1961 and 2003. The analysis reveals that there is a per capita GDP, credit to the private sector, and tariff rate that is positive and substantial. The link between wage rate general price centres and FDI has historically been unfavourable. This study also focuses on the variable's ability to draw FDI and its impact over the long and short terms. The correlation between the FDI influx and the rate of GDP growth is discussed by Khan and Nawaz (2010). This report warned that export is the main source of foreign direct investment in Pakistan. The real growth rate of the gross domestic product, the gross fixed capital creation, and the degree of trade openness, per capita income, foreign currency reserves, and the GDP are all significant economic parameters that are explained by wan et al. (2011). The research by Azeem et al. (2012) that examined the factors that determine



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

foreign direct investment showed that there is a negative correlation between population growth and total government spending, but that gravity has no impact on FDI inflow.

According to Akram (2014), FDI has a positive relationship with total debt service, electricity consumption, and gross domestic fixed capital creation, however inflation has a negative effect on FDI. Latif and Latief (2019) examined the quality of the relationship between Pakistan's 27 energy and power industries and FDI. The analysis came to the conclusion that the main factor affecting FDI is the power and energy industry. The short-term causal link between energy consumption and economic growth was also explored. Statistics indicate that there is a short-term causal relationship between these two variables.

**Table 1: Summary of Literature Review**

Author	Time period	Dependent variable	Independent variable	Model	Major finding
Latif & Latief (2019)	1990 to 2017	FDI	economic expansion, power, and the energy industry	Johansen co-integration and granger causality tests	Results show a long-term causal relationship between energy use and economic development, as well as a short-term causal relationship.
Khalid & Chaudhry (2017)	1980 to 2015	FDI	Gross domestic product (GDP) per person, exchange rate, trade openness, and dummy for dictatorship	ARDL model	While the perception of exchange rate is negative, the impact of GDP per capita, GNI, and trade openness on FDI is positive. Results from dictatorships show a progressive impact on FDI inflows.
Rehman (2016)	1984 to 2015	FDI	market size, openness, inflation and natural resource	co-integration and error correction techniques	Economic and social factors have long-term effects on FDI inflow, and vector error correlation also supports the existence of a short-term relationship.
Masooof (2015)	1990 to 2014	FDI	Gross domestic product, capital formation, inflation, and ancillary taxes	Regression model	They contend that Pakistan's low levels of FDI are due to daily tax increases, high rates of inflation, and slow GDP growth.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Danish & Akram (2014)	1990 to 2010	FDI	Gross fixed capital creation, electric consumption, total external loans, debt servicing, and inflation.	OLS	While inflation has a negative impact on FDI, other factors such as domestic fixed capital formation, total debt servicing, and electric power consumption have a positive impact.
Azeem et al. (2012)	1999- 2009	FDI	Gross domestic product (GDP), GDP per capita, GDP growth rate, inflation rate, population growth rate, and distance	two test fixed and random effect	All factors progress with FDI, but population growth has a negative relationship with FDI.
Awan et al. (2011)	1996-2008	FDI	Gross Fixed Capital Formation, Real GDP Growth Rate, Foreign Exchange Reserve, Level of Trade Openness, and Per Capita Income	Error correlation Model	The outcome variables demonstrate a considerable and growing incentive for FDI into Pakistan.
Khan & Nawaz (2010)	1970- 2005	FDI	export of goods and services, exchange rate, annual growth rate, and TAR	OLS	The impact of Pakistan's GDP growth rate on FDI inflow is favorable. Another important determinant of FDI is export.
Aqeel & Nishat (2005)	1961- 2003	FDI	Tariffs, currency exchange rates, taxes, private lending zones, and the total price list	integration and error-correlation techniques	Except for the wage rate and the general price index, all variables exhibit significant and positive trends.



**Methodology**

This study, which covered the years 1980 to 2022, employed five independent variables that are significant and significant drivers of FDI. The data has taken from WDI- world development indicator/ data bank. To assess stationarity in the current study, descriptive statistics, correlation, and ARDL and ARDL limit tests were utilised, along with additional diagnostic tests to estimate the model.

**Model**

The dependent variable in this study is FDI, whereas the independent factors utilised were population growth, energy usage, financial development, and GDP. Azeem et al. (2012), Khalid and Chaudhary (2017), Haseeb et al. (2014), and Azam et al. (2012) all utilized a similar model (2019).

**In linear form**

$$FDI_t = \beta_0 + \beta_1 POP_t + \beta_2 GDP_t + \beta_3 ENG_t + \beta_4 FD_t + \beta_5 INF_t + \mu_t$$

Where, the independent variable including POP = Population, GDP = gross domestic product, ENG = energy used, FD = financial development and INF = inflation. Dependent variable is FDI = foreign direct investment. B is regression coefficient and  $\mu$  is error term.

**In autoregressive distributed lag (ARDL) form**

$$FDI_t = \beta_0 + \sum_{i=1}^{n_1} \beta_{1i} FDI_{t-i} + \sum_{i=1}^{n_2} \beta_{2i} POP_{t-i} + \sum_{i=1}^{n_3} \beta_{3i} GDP_{t-i} + \sum_{i=1}^{n_4} \beta_{4i} ENG_{t-i} + \sum_{i=1}^{n_5} \beta_{5i} FD_{t-i} + \sum_{i=1}^{n_6} \beta_{6i} INF_{t-i} + \mu_t$$

**Table 2: Descriptive Statistics**

	<b>FDI</b>	<b>FD</b>	<b>GDP</b>	<b>INF</b>	<b>ENG</b>	<b>POP</b>
<b>Mean</b>	0.68	45.65	837.34	8.39	6.34	4.56
<b>Median</b>	0.64	46.84	635.56	8.21	6.18	4.23
<b>Maximum</b>	2.00	60.33	1421.45	17.89	6.45	5.78
<b>Minimum</b>	0.04	39.52	329.77	0.53	6.12	3.67
<b>Std. Dev.</b>	0.39	6.73	433.84	4.69	0.22	0.59
<b>Skewness</b>	0.78	0.23	0.45	0.81	-0.67	0.83





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

<b>Kurtosis</b>	2.82	2.22	1.67	2.92	2.86	3.43
<b>Jarque-Bera</b>	3.23	2.15	4.69	3.51	5.28	4.44
<b>Probability</b>	0.25	0.39	0.09	0.21	0.06	0.26
<b>Sum</b>	26.54	1883.67	3342.67	367.22	229.55	158.99
<b>Sum Sq. Dev.</b>	8.92	1654.78	728.44	914.45	0.76	7.25
<b>Observations</b>	39	39	39	39	39	39

**Table 3: Unit Root Tests**

Variables	ADF test Values (p-value)		PP test Values (p-value)		Decision
	At level	At 1 <sup>st</sup> Difference	At level	At 1 <sup>st</sup> Difference	
<b>FDI</b>	-4.041 (0.003)		-4.241 (0.0019)		Stationary at level
<b>GDP</b>	-0.065 (0.946)	-5.455 ( 0.0001)	-0.118 (0.940)	-5.47 (0.000)	Stationary At 1 <sup>st</sup> Difference
<b>POP</b>	1.610 (0.999)		1.728 (0.999)	-5.415 (0.0001)	Stationary At 1 <sup>st</sup> Difference
<b>INF</b>	-5.052 (0.000)	-5.415 (0.000)	-5.06 (0.0002)		Stationary at level
<b>FD</b>	-1.346 (0.597)	-6.72 ( 0.000)	-1.21 (0.659)	-6.925 (0.000)	Stationary At 1 <sup>st</sup> Difference
<b>ENG</b>	-2.444 (0.136)	-5.874 (0.000)	-2.60 (0.099)	-5.87 (0.000)	Stationary At 1 <sup>st</sup> Difference

The results of the unit root test show that FDI and inflation are national languages, whereas financial development and GDP are the primary drivers of population growth in different countries. Based on this, this study recommended the ARDL model.

**Table 4: ARDL MODEL Results**

Variables	Coefficient	Std. Error	t-Statistic	Prob.*
<b>FDI(-1)</b>	-0.19	0.21	-1.06	0.35
<b>FD</b>	-0.04	0.05	-1.92	0.07
<b>GDP</b>	0.00	0.00	2.31	0.04
<b>INF</b>	0.03	0.02	2.28	0.04
<b>INF(-1)</b>	0.02	0.01	1.54	0.18



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

<b>LENERGY</b>	1.86	1.01	1.86	0.07
<b>POP</b>	0.83	0.29	2.24	0.05
<b>C</b>	11.01	5.43	1.79	0.06
<b>R-squared</b>	0.59	Adjusted R-squared	0.53	
<b>F-statistic (P-value)</b>	6.28 (0.0001)			

The results of the ARDL test show that population growth, GDP, energy, and inflation have a large and positive impact on FDI, but financial development has a significant and adverse impact on FDI. Awan et al. (2011) and Masoof (2015) found a strong and favourable impact of GDP on FDI at the Panchayat level. Rehman (2016) (2016) It was also determined that inflation has a considerable impact on FDI. According to Latif and Iatief (2019), power and energy have a favourable impact on economic growth. According to the preceding table, the R-squared value is 0.60, which means that the factors you mentioned account for 60% of the variation in FDI.

**Table 5: ARDL Bound Test Results**

<b>Null Hypothesis: No long-run relationships exist</b>		
Test Statistic	Value	k
F-statistic	5.198	
<b>Critical Value Bounds</b>		
Level of significance	I0 Bound	I1 Bound
10%	2.32	3.42
5%	2.72	3.81
2.5%	2.89	4.23
1%	3.56	4.79

The study's ARDL bound test indicates that there is only a long relationship between the variables because the upper bound value of the sound test is exceeded. Accept the alternate hypothesis and reject the null hypothesis that there is no long-term relationship based on the results of the bound test study.



**Table 6: Digenetic Tests Results**

Test Name	p-value	Null Hypothesis (H0)	Decision
Jarque-Bera Test	1.4137 (0.4932)	The residual are normally distributed.	H0 Accepted
Breusch-Godfrey Serial Correlation LM Test	0.8426 (0.4412)	There are no serial correlations in the data.	H0 Accepted
Breusch-Pagan- Godfrey Test	0.7296 (0.6484)	There are Homoscedasticity in the data.	H0 Accepted
Ramsey RESET Test	0.9642 (0.3562)	No specification error found in the model.	H0 Accepted

### Conclusion and Recommendations

With the major aim determinants of FDI in Pakistan over the years 1980 to 2018, this study came to the conclusion that FDI has enormous significance and plays a vital role in economic progress in a nation. The study's primary goal is to identify the fundamental factors that strongly influence FDI in Pakistan. Because of this, economic growth, GDP per capita, population, energy, and inflation have an impact on FDI. FDI is significantly and favorably impacted by population growth and energy. While FDI is very interested in the link development but is also opposed to it. This suggests that in the case of Pakistan, economic growth, inflation, GDP, population expansion, and energy are the main and most crucial factors.

The chance for the developing countries to improve their circumstances is in the form of FDI. Pakistan must improve FDI in order to boost economic growth because it is a developing nation as well. The study's findings offer advice to policymakers on how to promote FDI. To encourage FDI in Pakistan, the relevant authorities must take the appropriate action. The government creates an atmosphere that is favourable for local investors so that international investors can participate in the regional economy. For a country to draw in foreign investors, it must have a strong military posture and a stable political environment.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## References

Ahmad, A., & Khan, F., (2018). Investigating the determinants of youth unemployment in Pakistan. *Pakistan Journal of Humanities & Social Science Research*, 1(1), 1-12

Akhtar, M.H. (2000). The determinants of Foreign direct investment in Pakistan: *the Lahore Journal of Economics*, 5(1), 01-22

Alshamsi, K.H. Hussin, R.M., and Azam, M. (2015). The impact of inflation and GDP per capita on foreign direct investment: the case of United Arab Emirates. *Investment Management and Financial Innovations*, 12(3): 132-141.

Akram, A. & Danish. Q.R. (2014). Empirical determinants of foreign direct investment in Pakistan: *Journal of Business & Economics*, 2(2), 61-70.

Ang, J.,B. (2008). Determinants of foreign direct investment in Malaysia: *Journal of Policy Modeling*, 30(1), 185-189

Awan, Z.,M. Khan, B. & Zaman, U., K. (2011). Economic determinants of foreign direct investment in commodity producing sector in Pakistan: *African Journal of Business Management*, 5(2) 537-545.

Awan, G,A. Ahmad, W. Shahid, P. &Hassan, J. (2014). Factors affecting foreign direct investment in Pakistan: *International Journal of Business and Management Review*, 2(4), 21-35.

Audi, M. (2011).Is foreign direct investment a cure economic growth in developing countries: *Journal of International Business and Economics*, 11(4), 32-51.

Azeem, W.S. Hussain, H. & Hussain, Y,R. (2012). The determinants of foreign direct investment in Pakistan: *Scientific Journal of Logistic*, 8(2), 81-97.

Azam, M. (2010). Economic determinants of foreign direct investment in Armenia, Kyrgyz Republic and Turkmenistan: *Eurasian Journal of Business and Economic*,3(6), 27-40.

Azam, M. & Khattak, N. (2009). Social and political factors effect on foreign direct investment in Pakistan: *Gomal University Journal of Research*, 25(1), 46-50.

Azam, M., (2015). The role of migrant workers remittances in fostering economic growth: The four Asian developing country's experiences. *International Journal of Social Economics*, 42(8):1-18.

Azam, M., and Gavrilu, L. (2015). Inward foreign capital flows and economic growth in African countries. *Journal of Applied Economic Sciences*, X-3 (33): 362-371.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Azam M, (2019). Inequality and economic growth in Asia and the Pacific region. *African and Asian Studies*, 18 (2019) 288-314. doi:10.1163/15692108-12341429.

Azam, M. (2019). Energy and economic growth in developing Asian economies. *Journal of the Asia Pacific Economy* DOI: 10.1080/13547860.2019.1665328.

Azam, M. and Ahmad, M.A., (2015). Role of human capital and foreign direct investment in promoting economic growth: Evidence from Commonwealth of Independent States. *International Journal of Social Economics*, 42(2), 89-111.

Azam, M., Nawaz, A., & Riaz, M., (2019). Does corruption and terrorism affect foreign direct investment inflows into Pakistan? *Journal of Managerial Sciences*, 13(3), 85-97.

Azam, M. (2016). Does governance and foreign capital inflows affect economic development in OIC countries? *Journal of Economic Cooperation and Development*, 37(4) 21-50.

Bahattab, A.S., Azam, M., Gavrilu, L., and Emiruallah, C., (2016). Foreign capital inflows, institutional factors and economic growth: Evidences from Republic of Yemen. *Journal of Applied Economic Sciences*, 5(43), 811-816.

Borensztein, E.De, G, J. Lee, J,W. (1998). How Does Foreign Direct Investment Affect Economic Growth? *Journal of International Economics*, 45(1), 115-135.

Behname, M. (2012). Foreign direct investment and economic growth: evidence from south Asia: *Atlantic Review of Review of Economics*, 2(16), 1-14.

Behrman, J. (1972). The role of international companies in Latin America Integration: The international Executive, 14(3), 18-20.

Danish, Q,R. & Akram, A. (2014). Determinants of foreign direct investment in Pakistan: *Journal of International Business and Economics*, 2(2), 61-70.

Dickey, D,A. & Fuller, A,W. (1979). Distribution of estimators for autoregressive time series with unit root: *Journal of the American Statistical Association*, 74(386), 427-431.

Dunning, J,H. (2002). Determinants of foreign direct investment: Globalization Induced Changes and the Role of FDI policies. Paper presented at the Annual Bank Conference on Development Economic in Europe, Oslo, mimeo.

Faras, R. & Ghali, K.(2009). Foreign direct investment and economic growth: *International Research Journal of Economic*, 29(1), 134-145.

Faria, J. R. (2016). Location clusters, FDI and local entrepreneurs: Consistent public policy. *Journal of the Knowledge Economy*, 7(4), 858–868.

Foster, J,B & Magdoff, F. (2009). *The great financial crisis: Causes and consequences*. NYU Press.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
Haseeb, M., N.H. Hartani, N.A.A. Bakar, Azam M. and S. Hassan, (2014). Exports, foreign direct investment and economic growth: Empirical evidence from Malaysia (1971-2013). *American Journal of Applied Sciences*, 11: 1010-1015.

Irwan S., Haseeb, M., Azam M. and Islam, R., (2015). Foreign direct investment, financial development, international trade and energy consumption: Panel data evidence from selected ASEAN countries. *International Journal of Energy Economics and Policy* 5(3), 841-850.

Ganda, F. (2021). The environmental impacts of human capital in the BRICS economies. *Journal of the Knowledge Economy*, 1–24.

Gupta, P. & Singh, A., (2016). Determinants of foreign direct investment inflows in BRICS Nations: A Panel Data Analysis. *Emerging Economy Studies*, 2(2) 1–18.

Globerman & Shapiro. (1999) & Shapiro & Globerman. (2001). The determinants of international prediction: *Oxford Economic Papers*, 25:3.

Haq, A.(2013). Determinants of foreign direct investment in Pakistan: *International Journal of Humanities and Management Science*, 1(4), 264-268.

Haq, M., Perveen, K., & Amin, B. (2017). Trade liberalization, manufacturing value addition, and economic growth: Empirical evidence in case of Pakistan. *Forman Journal of Economic Studies*, 13(1).

Haider, M. & Gull, S. Afridi, A, S. Battol, S. (2017). Factor affecting foreign direct investment in Pakistan: *International Journal of Business and Management*, 12(2), 2410-539.

Işık, C. (2013). The importance of creating a competitive advantage and investing in information technology for modern economies: An ARDL test approach from Turkey. *Journal of the Knowledge Economy*, 4(4), 387–405.

Khan, M.A, & Khan, S. (2018). Inflation and the economic growth: evidence from Five Asian Countries. *Pakistan Journal of Applied Economics*, 28(2), 235-252.

Khan, A,E,R. & Nawaz, A,M. (2010). The determinants of foreign direct investment in Pakistan: *Journal of Economics*, 1(2), 99-104.

Khan, F., Yasmeen, G, Sofian MUF, & Javid, M.U., (2019). Exploring the effect of terrorism on education sector: a case study of Khyber Pakhtunkhwa-Pakistan. *City University Research Journal* 9(2), 340-349

Khan, F., Javeria U., & Numan, M. (2014). Education, foreign direct investment and socio-economic development-A review. *Abasyn Journal of Social Sciences*, 7 (2), 269-277.

Khalid, A. & Chaudhry, A,S. (2017). Factor affecting foreign direct investment in Pakistan: *International Journal of Scientific & Engineering Research*, 8(10), 2229-5518.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Latief, R. & Lefen, L. (2019). Foreign direct investment in the power and Energy sector, Energy Consumption and Economic Growth: *Sustainability*, 11(192), 1-22.

Latief, R., & Lefen, L. (2018). The effect of exchange rate volatility on international trade and foreign direct investment (FDI) in developing countries along “one belt and one road.” *International Journal of Financial Studies*, 6(4), 86.

Le, H. Q., & Pomfret, R. (2011). Technology spillovers from foreign direct investment in Vietnam: Horizontal or vertical spillovers? *Journal of the Asia Pacific Economy*, 16(2), 183–201.

Liu, X., Lu, J., Filatotchev, I., Buck, T., & Wright, M. (2010). Returnee entrepreneurs, knowledge spillovers and innovation in high-tech firms in emerging economies. *Journal of International Business Studies*, 41(7), 1183–1197.

Liu, X., Gao, L., Lu, J., & Lioliou, E. (2016). Does learning at home and from abroad boost the foreign subsidiary performance of emerging economy multinational enterprises? *International Business Review*, 25(1), 141–151.

Masoof, N.(2015). Determinants and causes of low foreign direct investment in Pakistan: *international journal of scientific & research*, 6(12), 2229-5518.

Mazher, M., Mukhtar, T., & Sohail, S. (2020). Impact of Foreign Direct Investment and Foreign Remittances on Unemployment in Pakistan: A Time Series Analysis. *IIIE Journal of Economics and Finance*, 1(1).

Miyamoto, K. (2003). Human capital formation and foreign direct investment in developing countries. *Organisation for Economic Co-operation and Development (OECD) Paper* (211).

Muhammad, A., Khan, S., Zainal, Z., Karupiah, N., & Khan, F., (2015). The impact of foreign direct investment on human capital in developing countries. *Investment Management and Financial Innovations*, 12(3): 155-162.

Nishat, M. & Aqeel, A. (2005). The empirical determinants of foreign direct investment in Pakistan: *Saving & Development*, 24(4), 651-664.

Nasreen, S. Fazal U. Piezada, S,S. Khanam, F. Triq, S. (2014).impact of foreign direct investment on economic growth of Pakistan: *Journal of Economic and Sustainable Development*, 5(11), 1700-2222.

Phillips, P,CB. & Perron, P,P. (1988). Testing for a unit root in the time series regression: *Biometrika*, 75, 335-46.

Pesaran, M,H. Shin, Y. & Smith, RJ. (2001). Bound testing approaches to the analysis of level relationship: *Journal of Applied Economics*, 16(3), 289-326.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Perkins (2001) Dwight. Economics of development, W.W.Norton & Company, New York.

Rihab, A.B. & Lotfi, J.B. (2011). The institutional and cultural determinants of foreign direct investment in transaction countries: *Journal of Research in International Business and Management*, 1(2), 171-182.

Rehman, A. Tariq, M. & Ahmed, S. (2015). Foreign direct investment and export performance of Pakistan: *Journal of Business Studies*, 11(1), 1-11.

Rehman, U.H. (2016). Comparative analysis of socio economic determinants of foreign direct investment in Pakistan: *Pakistan Economics and Social Review*, 2(54), 255-274.

Rehman, H. U., Ahmed, D. I., & Jaffri, D. A. A. (2020). Impact of foreign direct investment (FDI) inflows on equilibrium real exchange rate of Pakistan. *South Asian Studies*, 25(1).

Sampson, T., Oberfield, E., Helpman, E., & Grossman, G. (2016). *Balanced Growth Despite Uzawa*. Paper presented at the 2016 Meeting Papers.

Shah, Z. & Ahmad, M.Q. (2003). The determinants of foreign direct investment in Pakistan: *The Pakistan Development Review*, 42(4), 697-714.

Shah, S.W. A., Bakar, N.A., and Azam, M., (2016). Foreign direct investment, economic growth and terrorism events in Pakistan: a co-integration analysis. *International Journal of Academic Research in Economics and Management Sciences*, 5(4), 155-167

United Nations Conference on Trade and Development (UNCTAD). (2014). World Investment Report. UN, New York and Geneva.

World Development Indicators (2018) World Bank

Yi, C., Xu, X., Chen, C., & Wu, Y. J. (2020). Institutional distance, organizational learning, and innovation performance: Outward foreign direct investment by Chinese multinational enterprises. *Emerging Markets Finance and Trade*, 56(2), 370–391.

Younas, S, H. Sohail, A, & Azeem, M. (2014). Impact of foreign direct investment on economic growth of Pakistan: *World Journal of Economic and Finance*, 1(1), 002-005.

Yousaf, M, M. Hussain, Z. & Ahmad, Z. (2008). Economic evaluation of foreign direct investment in Pakistan: *Pakistan Economic and Social Review*, 46(1), 37-56.

Zaman, S., Wang, Z., Rasool, S. F., uz Zaman, Q., & Raza, H. (2022). Impact of critical success factors and supportive leadership on sustainable success of renewable energy projects: Empirical evidence from Pakistan. *Energy Policy*, 162, 112793.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **A study to investigate social skills among hearing impaired students in Pakistan**

Dr. Shrafat Ali Sai

University of the Punjab, Lahore

Madeeha Rauf

National College of Business Administration and Economics, Lahore.

Sayyed Muhammad Bilal

Economics Department National University of Modern Languages, Multan

Ahsan Aslam Khan

Economics Universiti Utata, Malaysia

Dr. Muhammad Usman

University of the Punjab, Lahore

### **Abstract**

In contrast to government special education institutions, the current study emphasizes the presence of hearing-impaired pupils among social skills students who are educated at various social skill levels. It is a descriptive research with a survey-based methodology for gathering data. Information has been gathered from the divisions of Multan and Lahore. 200 respondents make up the sample size, and the convenient sampling method has been used. Mothers' comments were interpreted as evidence of their children's hearing impairments having high social skills. Children with hearing loss ranged in age from 5 to 20 years, while mothers ranged in age from 25 to 55 years. The checklist of social skills for children who are hearing-impaired is the study's instrument for gathering data. As statistical measurements, frequency distributions are used with the technique approach, ANOVA, and t-test. In the current study, the mother's age ranged from 25 to 55, while the children's ages ranged from 5 to 20. The social skill checklist is the instrument used in the current study to gather data. For data analysis, the ANOVA, t-test, and frequency distribution were employed. According to the current study, only 18% of hearing-impaired students and 82% of them have high levels of social skills. The study also found a substantial difference in living standard and locality, but no difference in employment status or other job-related educational levels. The research



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 demonstrates the first association between student age and social competence levels. The study also found a substantial difference in living standard and locality, but no difference in employment status or other job-related educational levels. The research demonstrates the first association between student age and social competence levels.

## **Introduction**

Every individual must have these items and be equipped with them in order to be prepared to fulfil tasks and deal with obstacles in life that are related to two distinct situations that affect everyone's life. Special individuals with any form of handicap need to get ready in order to handle their everyday lives. Due to this, several counsellors and psychologists throughout the school years conducted this study for the exceptional pupils. To determine if psychologists, people with social difficulties, and people who have emotional issues have participated in social education in global and educational institution measures recommended by UNICEF and WHO (2003). Social skills are the mindset that creates value and constructive conduct, maintains relationships without drawing attention to herself/himself or making fun of others, and gives a person the strength to perform their regular business to fulfil their everyday social commitments. Every normal kid finds it challenging to adjust to difficult situations and make decisions in everyday social life as a student with a disability facility in hearing impairment experience has a number of different challenges in community education institutions and on the playground. The training in social life and social skills is necessary to make good judgments in the environment and in society (Gamst-Klaussen et al., 2016).

Social skills signify the capacity to carry out everyday responsibilities, the combination of social activities that are compared tables distinguishing relationship condition significance of employability an impression of a child's social abilities might be formed by their capacity for poor social conduct, haste, or egotism (Hoffman et al., 2015). Both hearing-impaired and hearing youngsters employ a variety of social skills. The youngster still uses this throughout the day at various places. Children learn about several sources from birth. Children do not constantly pick up new skills from society, their siblings, or their parents. A hearing-impaired child's potential for social skills depends on the problem's identification, their age and maturity, their personality, their management style, and the experiences they have





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 encountered and witnessed. Additionally, the range of encounters in everyday life with skill development is also connected with hearing peers (Holstrum et al., 2008). Some of the skills that children acquire include appropriate behavior, appropriate emotional expression, identification, participation in social situations, beginning to speak, sharing of possessions, friendships, and social networks. Other skills include storytelling, competition, physical activity, and imitation (Patton, 2004). All students' quality of life is substantially impacted by peer interactions (Foulkes & Blakemore, 2021). The playground, lunchroom, and general education classroom are all excellent places to conduct social skills interventions because they are naturally inclusive social settings that foster the development of social interaction skills that last over time and are visible in real-world social situations (Brock et al., 2017; Locke et al., 2019a; Vincent et al., 2018). Naturalistic environments are different from traditional social skills intervention strategies that are implemented in a pull-out model because they naturally incorporate learning opportunities and everyday activities that are centered on the child's interests and initiative and aim to increase the use of appropriate social skills in everyday interactions (Cooper et al., 2019).

For the children, the development of social skills is crucial, and this goes for their IEPs as well. With the use of these strategies, objectives, and aims for social integration. Compared to those with normal hearing and their peers, people with hearing loss are more susceptible to developmental delays and confront problems. Language and dialect are constantly present. However, there is a long-term risk of maladaptive improvement in cases of bilateral mild level hearing loss (26 dB to 40 dB in the better ear) and low level unilateral hearing loss (less than 25 dB in the better ear, over 25 dB in the other ear). All things considered, many effects of hearing loss in children remain unstudied, especially those connected to improvements in the emotional and social development of the kid (Winiger et al., 2016).

These factors have a significant and positive influence on the low level of hearing, particularly in relation to social and emotional improvement (Winiger et al., 2016). Hearing loss may have an influence on some studies, however the social attitude was not specifically researched. The learning gap lessens the learning of distressing and well-observed beneficial intervention (Holstrum et al., 2008). According to Rose-Krasnor and Denham (2009), social skills should be developed in early childhood schooling. The current study focuses on social



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 skills in students aged 5 to 15 who have hearing impedance issues. The process of social skills having hearing problems, the position of the mother, and their living circumstances are all highlighted in this study.

## **Research objectives**

The study's aims are as follows:

1. To determine the social skills of kids with hearing impairment who attend government-run special education institutions.
2. To examine the disparities in social skills a student with hearing loss has when receiving education based on different demographics and moms of young children.

## **Research questions**

The study's questions are listed below:

1. Do all students in government special education institutions who have hearing impairments have a high degree of social skills?
2. Do the hearing-impaired pupils' social skills development processes vary depending on their demographics?

## **Methodology**

### **Population and sample of the study**

This is a descriptive research that uses the dispersion model developed by Fulton and Lahore to examine students who attend government special education institutions for kids who have hearing impairments. This descriptive study used a convenience sampling sample of 200 kids who had the issue of hearing impairment. This study concentrates on schooling from government special education schools with both normal and hearing impairment issues, as well as having the mother of concert children with hearing impairment. Because they have greater social skills and the ability to assess their children's potential, responses are gathered by the worried mother. Although their mother should be interpreted, students may also be



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 involved to provide the unclear replies. Data about students was gathered using symbols and other images. The mother's age ranges from 25 to 55, and the children's ranges from 5 to 20.

### Tool of the study

#### Social Skills Checklist (SSC):

The tool of study search developer social Skill checklist. This includes 40 items developer liquid scale of 0.886 is the reliability of the checklist. The social Skill checklist has four sections (emotional regulation, social play, communication skills, and emotional development). The researcher used to combine all dimensions as a social skill and not mention them separately to achieve the study's goal.

### Results

In light of the fact that 82% of children who are dealing with hearing impairment have low social skills, data collected show that 18% of children have a good level of social skill education.

#### An overview of the social skills of hearing-impaired kids based on their living environment (rural/urban)

The Brown research included 100 hearing-impaired children from rural living regions and 100 hearing-impaired children from metropolitan residential locations. The following table shows a comparison of the same number of children living in rural and urban areas, as seen in the accompanying figure.

**Table 1:**  
Level of Social Skills among Hearing Impaired Children on the Basis of Their Living Area

Living Area	N	Mean	df	t	Sig
Rural	100	52.87	189	2.298	.018
Urban	100	49.34			

At a significance level  $p < .05$

Table displays demographic variations with regard to hearing impairment and social skills for students. This leads to the conclusion that the graphical sections significantly affect the students' social abilities when they are dealing with youngsters.

## Overview of how the social skills of hearing-impaired adolescents are affected by their mothers' employment status

This showed that 136 mothers of students with hearing loss are out of them 64 are working women. Yesterday's news highlighted the ongoing issue with inheritance. The following figure depicts this distribution.

**Table 2:**  
**Level of Social skills among Hearing Impaired Children on the Basis of their Maternal Working Status**

<i>Maternal Working Status</i>	<i>N</i>	<i>M</i>	<i>df</i>	<i>t</i>	<i>Sig</i>
<i>Job Holder</i>	64	28.43	189	-.419	.396
<i>House Wife</i>	136	29.76			

*At a significance level  $p = < .05$*

The level of social skills among the student impaired problem does not alter based on the employment position of the mother. Highlights are provided by the table stated above. Conclusion: The degree of social skills of the pupils with hearing impairments is unaffected by the working status of women.

## Overview of the relationship between hearings impaired students' social skills level and mother education status

The study also found that children with hearing impairment are affected differently by social skills. The results of the current study indicate that 41% of mothers of hearing-impaired children have bachelor's degrees with hearing loss, of whom 33% have passed the matriculation exam. It also showed that 26% of moms of hearing-impaired children had less than a matriculation diploma. The statistics are shown by the call following figure.



**Table 3:**

**Level of Social Skills among Hearing Impaired Children on the Basis of their Maternal Education**

<b>GROUPS</b>	<b>SUM OF SQUARES</b>	<b>DF</b>	<b>MEAN SQUARE</b>	<b>F</b>	<b>SIG</b>
<b>BETWEEN GROUPS</b>	583.78	2	117.51	1.29	.23
<b>WITHIN GROUPS</b>	6134.94	195	82.83		

*At a significance level  $p = < .05$*

Table 3 above shows that there are no differences in the social skills of students who have a hearing impairment based on maternal education. Conclusion: Maternal education has no appreciable impact on the degree of social skills among students dealing with issues related to hearing-impaired children.

**An age-based summary of social skills among kids with hearing impairment**

This study's figures on the participation of various age groups were revealed. It can be shown that 20% of students with pay problems are between the ages of 16 and 20; 65% of students with hair problems are between the ages of 10 and 15; and 50% of students with inquiry problems are between the ages of 5 and 10. Additionally, this is mentioned in the table below:





**Table 4:**  
**Level of Social Skills among Hearing Impaired Children on the Basis of their Age**

GROUPS	SUM OF SQUARES	DF	MEAN SQUARE	F	SIG
BETWEEN GROUPS	146.83	2	72.99	2.43	.043
WITHIN GROUPS	4596.81	198	29.66		

At a significance level  $p = < .05$

The aforementioned points out that there are considerable differences in the social abilities of the pupils who are experiencing this issue depending on their age group. It may be inferred that the social abilities of the pupils dealing with their online issue may vary depending on their age group.

**Social skills are described in relation to age in children with hearing impairment.**

The study found that participants and students at various age levels had hearing issues. The study's findings show a strong correlation between the age of children who are having social skills problems and those problems. The table below demonstrates this:

**Table 5:**  
**Relationship among Social Skills and the Age of Hearing Impaired Children**

		SOCIAL SKILLS	AGE
SOCIAL SKILLS	Pearson Correlation	1	.632**
	Sig. (2-Tailed)		.001
	N	100	100
AGE	Pearson Correlation	.632**	1
	Sig. (2-Tailed)	.001	
	N	100	100

\*\*At a significant level of 0.01 (2-tailed).



The table above explains the positive association between age and social skills problems in children. The age of children and the social skills of the student with a hearing impairment are strongly associated.

## Discussion

In contrast to children with normal hearing and social abilities, the current study finds that children with hearing problems have a low social attitude. Hoffman et al. (2015) noted that youngsters who struggle with a lack of social skills and performance levels that are incomparable also exhibit greater best compared to normal behaviors. Children with middle-level hearing loss described in cochlear implant studies make the same claim (Wiefferink et al., 2012). Cochlear implants enhance middle level stability, which also raises the degree of social skills (Ketelaar et al., 2013). The study discovered that obstacles and the combining of all groups for kids with hearing impairment issues could produce unpredictable results, and that when students use various assessment techniques across age groups, only kids who have made the necessary progress in dealing with hearing impairment issues may be affected by the outcomes.

## Findings and Conclusion

According to the current study, compared to 80% of children with hearing impairment issues who have superior social skills, 82% of children with hearing impairment issues have poor levels of social skills. Also point out that there are big differences in social skill levels and demography ka place. The study emphasizes that geography and demography are same. Both children from rural and urban areas have the same social skills. The study also shows that for all of the youngsters who have a hearing impairment issue, there is no appreciable difference between the job holder and homemaker mother. Age and social skills are positively correlated, but age and intelligence are negatively correlated.

Age has a favorable correlation with social skills and a negative correlation with hearing impairment issues. According to studies, teachers should put an emphasis on each student and use a variety of instructional strategies when working with kids who have hearing



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 impairments. Teachers, parents, and concerned policy-making organizations have expressed worry about the fact that most pupils lack social skills and participation in everyday social life when compared to other children their age. The foundation of rehabilitating children with hearing loss is social skills. The study also shows that working mothers should require time to help hearing-impaired children adjust socially in their surroundings and become valuable members of society. The current study has significance for parents' curriculum, past instructors, and school administrators as well as policymakers for kids with better issues. Discovering the student's leg abilities and becoming more knowledgeable about them are the teacher's and parents' top priorities. Social assistance for students with special needs is offered by the special instructor in order to address their face hair impairment problem. For the rehabilitation of children with special needs, workshops and seminars should be offered at the local, semi-local, and national levels of government.

## References

Brock, M. E., Dueker, S. A., & Barczak, M. A. (2017). *Brief report: improving social outcomes for students with autism at recess through peer-mediated Pivotal Response Training. Journal of Autism and Developmental Disorders, 48*(6), 2224–2230.

Cooper, J. O., Heron, T. E., & Heward, W. L. (2019). *Applied Behavior Analysis (3rd Edition)*. Hoboken, NJ: Pearson Education.

Foulkes, L., & Blakemore, S. J. (2021). Individual difference in adolescent mental health during COVID-19: The importance of peer relationship quality.

Gamst-Klaussen, T., Rasmussen, L.M.P., Svartdal, F. & Strømgren, B. (2016). Comparability of the social skills improvement system to the social skills rating system: a Norwegian study. *Scandinavian journal of educational research, 60*(1), 20-31.

Hoffman, M.F., Quittner, A.L. & Cejas, I. (2014). Comparisons of social competence in young children with and without hearing loss: A dynamic systems framework. *Journal of Deaf Studies and Deaf Education, 20*(2), 115-124.

Holstrum, W.J., Gaffney, M., Gravel, J.S., Oyler, R.F. & Ross, D.S. (2008). Early intervention for children with unilateral and mild bilateral degrees of hearing loss. *Trends in Amplification, 12*(1), 35-41.



## 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Keilmann, A., Limberger, A. & Mann, W.J. (2007). Psychological and physical well-being in hearing-impaired children. *International journal of pediatric otorhinolaryngology*, 71(11), 1747-1752.

Ketelaar, L., Rieffe, C., Wiefferink, C.H. & Frijns, J.H. (2013). Social competence and empathy in young children with cochlear implants and with normal hearing. *The laryngoscope*, 123(2), 518-523.

Lee, A., Hankin, B.L. & Mermelstein, R.J. (2010). Perceived social competence, negative social interactions, and negative cognitive style predict depressive symptoms during adolescence. *Journal of clinical child & adolescent psychology*, 39(5), 603-615.

Locke, J., Rotheram-Fuller, E., Harker, C., Kasari, C., & Mandell, D. S. (2019a). Comparing a practice-based model with a research-based model of social skills interventions for children with autism in schools. *Research in Autism Spectrum Disorders*, 62, 10–17.

Patton, R.K. (2004). Social skills issues of mainstreaming hearing-impaired children.

Rose-Krasnor, L. & Denham, S. (2009). Social-emotional competence in early childhood. *Handbook of peer interactions, relationships, and groups*, 162-179.

Tharpe, A.M. (2008). Unilateral and mild bilateral hearing loss in children: past and current perspectives. *Trends in amplification*, 12(1), 7-15.

Vincent, L. B., Openden, D., Gentry, J. A., Long, L. A., & Matthews, N. L. (2018). Promoting social learning at recess: Using structured playground activities to increase social skills for children with autism spectrum disorder and related challenges. *Behavior Analysis in Practice*, 11(1), 19–33.

Wiefferink, C.H., Rieffe, C., Ketelaar, L., De Raeve, L. & Frijns, J.H. (2012). Emotion understanding in deaf children with a cochlear implant. *Journal of deaf studies and deaf education*, 18(2), 175-186.

Winiger, A.M., Alexander, J.M. & Diefendorf, A.O. (2016). Minimal hearing loss: From a failure-based approach to evidence-based practice. *American journal of audiology*, 25(3), 232-245.

World Health Organization. (2003). Skills for health: skills-based health education including life skills: an important component of a child-friendly/health-promoting school.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Antecedents of Consumer Online Purchase Behavior-The Moderating effect of Brand Trust**

Dr. Irsa Mehboob

Independent Researcher, Dubai

Zara Imran

National University of Modern Languages, Lahore Campus

Dr. Shrafat Ali Sair

University of the Punjab, Lahore

Dr. Saeed Ahmad Sabir

University of the Punjab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore

### **Abstract**

The current investigation aims at exploring the relationship between the key antecedents of consumer online purchase behavior. As online shopping is a new surging trend to attract Tech Savvy buyers who prefer shopping convenience and value variety of product assortment. The focus of this research is to describe the most essential variables namely Shopping Convenience and Product Variety to gauge consumer online buying behavior in e commerce context. As per the statistical findings, we demonstrate that both predictors have significantly influential impact on the outcome variable. These findings would allow marketing scholars and PR actioners to make these elements as important part of their marketing strategy on social networking sites.

**Keywords:** Online Shopping, Trust, shopping convenience, Privacy, online consumer buying behaviour

### **Introduction**

People all around the globe are always striving to provide a better living for their families, which has led to an increase in the popularity of online shopping in recent years. As a result, in order to increase their household income, they spend a significant amount of time working rather than with their families at home. They choose to purchase things online to save themselves the time and effort of going to the actual store. Internet use now has a greater impact than it did in the past on people's day-to-day lives (Ahmed, 2020). Whether you're at home, at the office, or even in a distant country, shopping online is quickly becoming the means to make all of your purchases. This is particularly true for industrialized nations, where almost every shop has its own website from which customers may make purchases online (Alzoubi et al., 2022). Trade secrets such as "cash on delivery" and "special discounts on online purchases" have made it possible to move large numbers of people quickly and efficiently. Recently, people in the Asian area have begun to embrace the practice of shopping online while sitting on the sofa in the comfort of their own homes. This is particularly true in Pakistan and India. India seems to have embraced the trend far more quickly than other countries, as seen by the many fashion, furniture, and food websites that it





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 has, in addition to its forays into more well-known enterprises like Amazon.in and Ebay.in (Chawla & Kumar, 2022).

One possible explanation for the rapid growth of internet buying is that it is both more cost-effective and more time-efficient than traditional shopping. Some shoppers were wary of making the switch from traditional to online purchasing out of concern that their private information may be compromised, that they might not get the exact thing they ordered, that the product might not be of the quality they expected, etc. (Alzoubi et al., 2022). These reservations have gradually faded as more people learn about the advantages of shopping online. People shop online for a variety of reasons, such as the shopping convenience of not having to leave the house to make a purchase, the ease with which they can compare prices across multiple vendors to find the best deal, the desire to avoid the stress of making a purchase decision in front of a live person, the desire to avoid the hassle of driving in heavy traffic, and so on (Chandra, 2021).

Consumers have access to more information and more possibilities to compare items and pricing when they purchase online, as well as a larger product variety, more shopping convenience, and an easier time discovering the things they seek online. There is a school of thought that contends that internet shopping may provide a higher level of gratification to today's customers since it is more convenient and quicker (Iskandar & Nasution, 2019). When a customer is engaged in online communication and comes across a banner advertising or an online promotion, it has the potential to capture their attention and pique their interest in the particular items that are being advertised. A potential buyer could look for more information to assist them in making their decision before making a purchase. If there is insufficient information, they will look for it via other online channels, such as accessing websites, online catalogues, or search engines (Chang & Meyerhoefer, 2021).

However, the process of conversion has proven to be more challenging in Pakistan. People, as a general, don't even believe what has been presented in front of them, so it is rather difficult to anticipate that they would purchase anything online and be happy with what they received in return for their money. On the other hand, young people in Pakistan have far more open minds than their elders and have slowly started to warm up to the idea of online shopping, even if it's simply for ordering meals (Ghouri et al., 2021). Since we as a country and as individuals have fallen prey to such a large number of cons, both on the internet and on our mobile devices, it is only natural that we would view any action that takes place online with a modicum of skepticism. Researchers have come to the conclusion as a result of this current trend that the youth's age alone is not the only element that is prompting them to gravitate towards internet buying (Qalati et al., 2021). In Pakistan, one of the markets with the most rapid expansion is online shopping, which also contributes significantly to the growth of the information technology sector. Other variables are also at play in this phenomenon. The results of this research are what are hoped to shed light on these aspects (Bhatti et al., 2020).

Despite the fact that there are lot of individuals who are prepared to make the switch to buying online, there are still a lot of people who aren't. This study is being carried out to determine the reasons why individuals are prepared to modify their consumer purchasing behaviour in order to shop online. Specifically, the researchers are interested in identifying



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
the factors that motivate consumers to make this shift. It will be able to highlight areas that can be focused on by online shopping websites to make the transition simpler and safer for the customers. The primary objective of this study is to investigate the online purchase behavior and changes in online buying determined by the Shopping convenience, Time, Product Variety, and Privacy with the moderating effect of brand trust among the youth of Punjab, Pakistan, specifically at the university of Punjab.

## Literature Review

"Online purchase behavior" may be defined as the study of "individuals, groups, or organisations and the procedures they use to choose, obtain, and dispose of items, services, experiences, or ideas to meet wants and the implications that these processes have on the consumer and society." (Loxton et al., 2020). Each person's shopping habits are unique since they are based on their own personal preferences. Consumers' preferences are determined by their shopping behaviours, which in turn are influenced by a variety of psychological and social elements. As cited in . According to Rondoni et al. (2020), the rise of e-commerce has outpaced that of overall Internet users. It seems that more and more people are becoming used to the idea of buying things on the Internet. Although advances in internet technology have contributed to a rise in the number of consumers, many individuals are still reluctant to do their grocery shopping online owing to security and privacy concerns. As online franchises and shops evolve, however, online shopping remains a market force (Pourfakhimi et al., 2020).

"The idea of brand trust may be described as the readiness of one party to be susceptible to the acts of another party based on the expectation that the other would execute a certain action vital to the brand trustor, regardless of the capacity to monitor or control that other party," The research that was conducted by Ferreira (2015) was one of the earliest and most widely read studies on the topic of brand trust in online commerce. The authors believed that the primary predictors of brand trust were a person's intention to take a risk and their perception of the brand trustee's characteristics. The level of confidence that consumers have in the safety of using their credit cards and providing their personal information while shopping online has a significant impact on the extent to which customers are prepared to make purchases from online retailers (Whysall, 2000). Carrying well-known brands on one's website is a simple and effective method for a business that operates online to allay the fears of its clients about the potential for financial loss. In addition to this, it is a smart move to establish your own brand identity, similar to how Amazon does it. Increasing the amount of a brand's items one has while simultaneously selling those things might help increase the brand's brand trustworthiness. The customer's ultimate choice of whether or not to make a purchase is also significantly impacted by the brand name (Lim & Dubinsky, 2004).

Although shopping convenience is one of the most important reasons why people choose to shop online, the majority of previous studies have either treated shopping convenience as a predictor variable that affects outcome variables like customer service for customer satisfaction, or as one of the aspects regarding service quality online, like accuracy (Jayawardhena et al., 2007). This is despite the fact that shopping convenience is one of the most important reasons. During their research on consumer characteristics and online buying, Donthu and Garcia (1999) observed that consumers who shop online tend to priorities



Proceedings

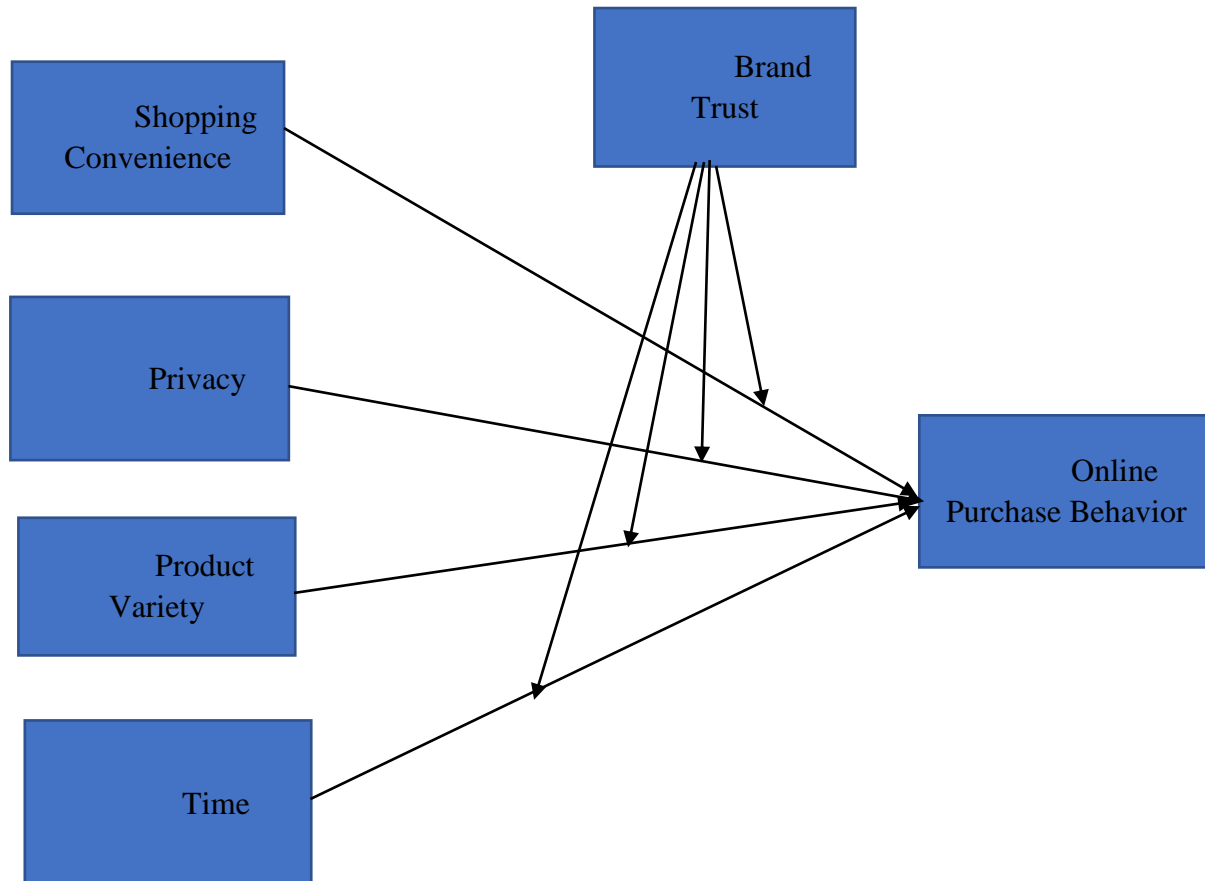
ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 shopping convenience and variety. This was one of the findings of their study. According to Wang and Emurian (2005), shopping convenience is one of the most influential criteria when it comes to the inclination to purchase online. In contrast to conventional stores, you may do your shopping online whenever the mood strikes you. Online retailers are available 24/7. Not only are customers looking for things, but they are also interested in purchasing services over the internet. There are several websites available online that give online customer care 24 hours a day, seven days a week. This enables users to seek help, support, or ask questions at any time, even beyond normal business hours, which is a very convenient service for those clients (Katawetawaraks & Wang, 2011).

A product factor may refer to any quality of the item or service that is being offered for purchase. Products that are purchased online are almost always the same as those that may be bought in traditional shops made of brick and mortar. Customers choose where they will make their purchases depending on criteria such as which establishment provides a better price relative to the quality of the goods being purchased. Other considerations include the extent to which the product may be personalized, its overall worth, and the methods of promotion (Torkzadeh & Dhillon, 2002). Numerous studies, including those conducted (Loxton et al., 2020; Pourfakhimi et al., 2020), have found that the availability of a wide selection of products is one of the most important factors in customers' reports of being satisfied with their online shopping experiences.

According to Bhatti and Alymenko (2017) research, one of the things that contributes the most to the success of online commerce is security. According to Bashir et al. (2015) definition of the word, "privacy" is a phrase that is typically used to express a collection of values that include the right of individuals to the privacy of their own bodies, private places, conversations, and information. According to Saini and Agrawal (2021), privacy in the context of cyberspace may be defined as the capacity of the user to manage the terms and circumstances under which their personal data is gathered and use by third parties. According to Pan and Zinkhan (2006), concerns over an individual's right to privacy have a significant negative impact on the confidence that a customer has in an online store. According to the findings of a number of studies, the primary obstacle that stands in the way of the growth of online shopping is consumers' concerns over their privacy. When a customer engages in online shopping, the level of security and privacy that is provided to them, as well as the level of risk associated with the exchange of information, has a direct impact on the consumer's level of brand trust and, as a result, the quality of their shopping experience.

## Theoretical Framework



## Methodology

In order to carry out this study, the researchers used a method known as quantitative research. Students at the University of Punjab, mostly those enrolled in business programmed such the Institute of Business Administration, Institute of Administrative Studies, Hailey College of Commerce, and IBIT, were each given a printed version of one of the 215 questionnaires. All of the respondents were either working toward their bachelor's, master's, or doctoral degrees, or they were postgraduate students. At the beginning of the questionnaire, a clear introduction as well as a set of instructions were provided. Additionally, additional information and direction were provided whenever it was appropriate to do so. In addition to that, a legend was provided that elaborated on each of the potential answers. This was done to guarantee that each response had a solid grasp of the grading system as well as the questions. The procedures were standardized as far as was humanly practicable, and every respondent filled out the questionnaires on their own. 215 of the totals of 250 questionnaires that were sent out were received back with their responses and were



Partial least squares structural equation modeling with Structural Equation Model (SEM) was utilized as a statistical analysis approach to test the hypotheses and evaluate the overarching hypothesis. The data collected were evaluated using the Microsoft Excel, SPSS, and SmartPLS software.

## Results

### 4.1 Validity and Reliability

The validity and reliability study has evaluated the quality of the questionnaire's useful prediction. Convergent validity (using AVE) was used to evaluate the measurement model's construct validity, while factor loadings were used to evaluate the model's reliability. As shown in Table 3, the values of the factor loadings for the two variables are greater than the cutoff value of 0.6 (Afthanorhan, 2013).

**Table 1: Convergent Validity and Reliability for Knowledge Sharing**

	Cronbach's		Composite	Average Variance
	Alpha	rho_A	Reliability	Extracted (AVE)
Online Purchase Behavior	0.849	0.899	0.877	0.502
Shopping Convenience	0.81	0.865	0.839	0.504
Privacy	0.814	0.831	0.856	0.533
Product Variety	0.715	0.737	0.809	0.561
Time	0.725	0.829	0.824	0.529
Brand trust	0.809	0.823	0.868	0.571

The discriminant validity results are shown in Table 2. For the HTMT, correlations between factors should not be greater than 0.90. As shown in Table 2, the HTMT results ranged from 0.125 to 0.811, which is below the cutoff value. The results of the cross-loadings criterion ranged from 0.26 to 0.76. These findings reflect the questionnaire's high level of discriminant validity.





**Table 2 Discriminant Validity of Constructs**

	Consumer				
	Buying Behavior	Shopping convenience	Privacy	Product Variety	Brand trust
Online Purchase Behavior	0.76				
Shopping convenience	0.428	0.367			
Privacy	0.644	0.404	0.457		
Product Variety	1.092	0.775	0.33	0.38	
Brand trust	0.384	0.728	0.26	0.325	0.344

### Testing of Hypothesis

Based on the research framework, the direct effects between studied variables were analyzed using SEM and are presented in Table 3. Table 3 illustrates the values of path coefficients, standard errors, *t*-statistics, and *p*-values for shopping convenience, Privacy, Product Variety and Time as an independent variable has significant effect on online purchase behavior. Further, the results indicated that brand trust has moderating effect between observed variables. The results of the study indicated that all the null hypothesis are rejected.

**Table 3: Structural Equational Modeling**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Shopping convenience -> Online Purchase Behavior	0.15	0.143	0.013	11.909	0
Privacy -> Online Purchase Behavior	0.021	0.026	0.007	3.027	0.029
Product Variety -> Online Purchase Behavior	0.137	0.151	0.014	9.592	0.000



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Time -> Online Purchase

Behavior	0.803	0.795	0.007	7.524	0.000
<b>Moderation Effect</b>					
SC -> BT -> OPB	0.634	0.534	0.009	3.909	0.011
P -> BT -> OPB	0.812	0.489	0.016	4.503	0.000
PV -> BT -> OPB	0.782	0.549	0.026	3.860	0.051
T -> BT -> OPB	0.960	0.553	0.091	3.924	0.000

## Conclusion

After doing this investigation, a number of findings emerged. When it came to the younger age, the brand trust factor seemed to be the most influential moderating factors influencing online purchase behaviour when it came to online shopping. Since consumers had confidence in the website, it was probable that they would make additional purchases there. However, contrary to the widespread belief, the protection of personal information did not seem to affect the behaviour of customers. People were not worried about revealing personal information such as addresses online since they had the option to pay with cash on delivery (also known as CoD). Shopping convenience was also a significant factor when it came to online buying, as individuals preferred to purchase from the comfort of their own homes rather than go out to shops. This research was conducted only on the youngsters of Punjab University's business departments. It may be expanded to accommodate more departments, institutions, and age groups. Broader range would allow for a more comprehensive perspective and a deeper comprehension of the youth's perception of online purchasing. The majority of those randomly selected were female. A more comprehensive analysis of internet shopping might be possible with a greater number of male participants. Also, the age groupings may be simply modified to accommodate additional groups of participants.

## References

- Afthanorhan, W. (2013). A comparison of partial least square structural equation modeling (PLS-SEM) and covariance based structural equation modeling (CB-SEM) for confirmatory factor analysis. *International Journal of Engineering Science and Innovative Technology*, 2(5), 198-205.
- Ahmed, B. (2020). ONLINE SHOPPING TRENDS ON CONSUMER-BUYING BEHAVIOR.
- Alzoubi, H., Alshurideh, M., Kurdi, B., Alhyasat, K., & Ghazal, T. (2022). The effect of e-payment and online shopping on sales growth: Evidence from banking industry. *International Journal of Data and Network Science*, 6(4), 1369-1380.
- Bashir, R., Mehboob, I., & Bhatti, W. K. (2015). Effects of online shopping trends on consumer-buying behaviour: An empirical study of Pakistan. *Journal of Management and Research*, 2(2), 1-24.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Bhatti, A., Rehman, S. U., Kamal, A. Z., & Akram, H. (2020). Factors effecting online shopping behaviour with brand trust as moderation. *Jurnal Pengurusan*, 60, 109-122.

Bhatti, H. J., & Alymenko, A. (2017). Marketing Intelligence: Strength and Weaknesses of E-Business Marketing. In.

Chandra, M. (2021). AWARENESS AND SATISFACTION ON ONLINE SHOPPING: A STUDY WITH SPECIAL REFERENCE TO THOOTHUKUDI DISTRICT OF TAMILNADU STATE.

Chang, H. H., & Meyerhoefer, C. D. (2021). COVID-19 and the demand for online food shopping services: Empirical Evidence from Taiwan. *American Journal of Agricultural Economics*, 103(2), 448-465.

Chawla, N., & Kumar, B. (2022). E-commerce and consumer protection in India: the emerging trend. *Journal of Business Ethics*, 180(2), 581-604.

Donthu, N., & Garcia, A. (1999). The internet shopper. *Journal of advertising research*, 39(3), 52-52.

Ferreira, A. T. (2015). Organizational trust: Mayer, Davis and Schoorman a review.

Ghouri, M. W. A., Tong, L., & Hussain, M. A. (2021). Does Online Ratings Matter? An Integrated Framework to Explain Gratifications Needed for Continuance Shopping Intention in Pakistan. *Sustainability*, 13(17), 9538.

Iskandar, D., & Nasution, M. I. B. (2019). Analisis Pengaruh Kepercayaan, Keamanan dan Kualitas Pelayanan Terhadap Keputusan Pembelian pada Online Shop Lazada (Studi Kasus Pada Mahasiswa/i FEB UMSU). Prosiding Seminar Nasional Kewirausahaan,

Jayawardhena, C., Wright, L. T., & Dennis, C. (2007). Consumers online: intentions, orientations and segmentation. *International Journal of Retail & Distribution Management*.

Katawetawaraks, C., & Wang, C. (2011). Online shopper behavior: Influences of online shopping decision. *Asian Journal of Business Research*, 1(2).

Lim, H., & Dubinsky, A. J. (2004). Consumers' perceptions of e-shopping characteristics: an expectancy-value approach. *Journal of Services Marketing*.

Loxton, M., Truskett, R., Scarf, B., Sindone, L., Baldry, G., & Zhao, Y. (2020). Consumer behaviour during crises: Preliminary research on how coronavirus has manifested consumer panic buying, herd mentality, changing discretionary spending and the role of the media in influencing behaviour. *Journal of risk and financial management*, 13(8), 166.

Pan, Y., & Zinkhan, G. M. (2006). Exploring the impact of online privacy disclosures on consumer trust. *Journal of retailing*, 82(4), 331-338.

Pourfakhimi, S., Duncan, T., & Coetsee, W. J. (2020). Electronic word of mouth in tourism and hospitality consumer behaviour: state of the art. *Tourism Review*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Qalati, S. A., Vela, E. G., Li, W., Dakhan, S. A., Hong Thuy, T. T., & Merani, S. H. (2021).

Effects of perceived service quality, website quality, and reputation on purchase intention: The mediating and moderating roles of trust and perceived risk in online shopping. *Cogent Business & Management*, 8(1), 1869363.

Rondoni, A., Asioli, D., & Millan, E. (2020). Consumer behaviour, perceptions, and preferences towards eggs: A review of the literature and discussion of industry implications. *Trends in Food Science & Technology*, 106, 391-401.

Saini, S., & Agrawal, S. (2021). THE IMPACT OF LOYALTY AND CUSTOMER SATISFACTION ON E-MARKETING: A SURVEY. *INTERNATIONAL JOURNAL*, 6(3).

Torkzadeh, G., & Dhillon, G. (2002). Measuring factors that influence the success of Internet commerce. *Information systems research*, 13(2), 187-204.

Wang, Y. D., & Emurian, H. H. (2005). An overview of online trust: Concepts, elements, and implications. *Computers in human behavior*, 21(1), 105-125.

Whysall, P. (2000). Addressing ethical issues in retailing: a stakeholder perspective. *The International Review of Retail, Distribution and Consumer Research*, 10(3), 305-318.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Examining Risks factors in adoption of internet banking: An Empirical assessment of Pakistani Banking Sector**

Dr. Shrafat Ali Sair

University of the Punjab, Lahore

Dr. Aamir Sohail

The University Bhakkar

Dr. Saeed Ahmad Sabir

University of the Punjab, Lahore

Dr. Ijaz Hussain

The University of Lahore

Dr. Sami Ullah

University of Sialkot, Sialkot

### **Abstract**

The purpose of this study was to investigate Pakistan's Internet Banking (IB) users' perceptions of the performance, privacy, time, and financial risks associated with using IB services. In order to collect data on the resistance that people have to IB adoption, a structured questionnaire was administered to a sample size of 500 clients of internet banking. In this particular research study, the method of structural equation modelling was used in order to study the relationship between exogenous and endogenous components. According to the reliability study, the values of Cronbach's alpha for all of the variables fell within a range that is considered to be acceptable. According to the results of the research, all of the variables seem to have a significant negative link with IB adoption. Further The studies also underlined the fact that end-users are reluctant to adopt IB because they fear that even little mistakes made while utilizing the new IB system might result in significant financial losses.

**Keywords:** *Internet Banking, Adoption, Privacy risk, Social, Pakistan*

### **Introduction**

Internet banking (IB) is the use of the internet as a channel of delivery for the banking industry. This includes both traditional services such as fund transfers, balance inquiries, and printing services, as well as new services such as electronic bill payment and presentation, all of which can be done without the need to physically go to a bank (Frust, Lang, & Nolle, 2000; Chan 2004). Because of its rapid expansion and rising popularity, the internet presents companies operating in a wide range of sectors with both new opportunities and new challenges. This is because the internet alters the traditional methods that companies use to run their operations and encourages companies to shape the delivery of their goods and services through the internet as a distribution channel (Mukherjee & Nath 2003). In comparison to other industries, academics have placed a greater emphasis on the importance of the internet for the financial industry (Tan & Teo, 2000; Chau & Lai, 2003).

The core of internet banking involves cost reduction by lowering operational expenses, revenue growth via value addition and non-financial services, performance improvement by making services available around the clock, and end-user comfort through





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 updated service offerings (Martins et al., 2014). Internet banking, on the other hand, provides a handy way for users to manage their funds from anywhere (Amit, 2013). The number of IB users worldwide has increased significantly in recent years. However, the quantity of online banking transactions continues to be minimal (Roy & Sekhon 2016). It is articulated that end-users either do not embrace internet banking or do not utilize it continually after adoption.

Perceived risk theory describes a lack of confidence in a product or service due to prospective drawbacks that may influence the purchase of this product (Littler et al., 2006). Using this theory, several scholars have characterized perceived risk theory as a synthesis of various levels. These dimensions include social, physical, performance, security, financial, psychological, and privacy threats (Jacoby & Kaplan, 1972; Kaplan, Szybillo, & Jacoby, 1974; Roselius, 1971). Perceived-risk theory was utilized as a basic notion in this study.

According to the payment system review report, published in March of the fiscal year, 2020 by State Bank of Pakistan (SBP) registered internet banking users are up from 1.8 to 3.8 million in 2015-2020 third quarter with a growth of 47.4% (SBP, 2020). Although this increase in internet banking users is lower than other Asian economies, (Bashir & Madhavaiah 2015). Besides this, Pakistan yet retains the potential to increase its number in a couple of years.

It is advised that financial organisations, especially banks, conduct regular consumer demand surveys in order to comply with issues that discourage end-users from using online banking (Podder 2005). Previously, academic literatures have highlighted several factors such as trust, satisfaction, innovation, and security, customer loyalty, brand image, website design, etc. parallel to internet adoption studies. (Raza and Hanif, 2013; Rahi et al. 2019). However, no one yet conclusively draws a pattern on IB adoption in the case of Pakistan. Therefore, this study was proposed to measure the significant effect of performance, financial and time, risks on the internet banking adoption in Pakistan.

## Literature Review

Internet banking is quite vital for banking industry to sustain itself in the market (Burnham, 1996). It is predicted that internet banking sector will grow at a huge pace (Liao et al., 1999; Duclaux, 1996). Arthur (2000) investigated that more than 50% of the customers, firstly contact their first bank to inquire about a new product or service. Therefore, if it is properly allied, online banking offers an extraordinary facility to perform shopper requests, cross banking facility, buys online products and enhances the banks' unassertive location (Currie, 1999; Lam & Burton, 2005).

In parallel, the development of e-commerce has provided a platform to offer greater opportunities for retailers, manufacturers, and other stakeholders. It is indicated that internet technology has become the source of competition (Crespo, Del Bosque, & de los Salmones Sánchez, 2009). The technology adoption has not only provided multiple benefits to stakeholders but at the same time, there are also challenges created by this technology adoption. Internet banking adoption discloses studies in three groups; descriptive, comparative, and relational. These group research studies describe an attitude and attributes regarding internet banking adopters, appealing features and obstacles that lead to adoption. Sathye (1999) pioneer to study internet banking adoption, reveals that the absence of



7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
consciousness about internet banking adoption; unreasonable prices as well as security concerns are elements for non-adoption in the Australian banking sector.

Technology Acceptance Model (TAM) focus on new technology for developing a good usage behavior. This theory pays special attention to the analysis of the potential beliefs of the customers which lead to impact individuals' intentions and attitudes (Davis, Bagozzi, & Warshaw, 1989). It based on two beliefs fundamentally: perceived ease of use and perceived usefulness. TAM following the Theory of Reasoned Actions, states that the use of computer innovation is determined by behavioral intentions, and two direct determinants of intentions of consumers: perceived usefulness and attitude toward a particular technology. (Ariff, Sylvester, Zakuan, Ismail, & Ali, 2014; Hassan, Kunz, Pearson, & Mohamed, 2006). Consumer perceived risk has been analyzed from various diverse perspectives. As per the classical theory of decision conceives, consumer perceived risk is recognized as the variable to be formed from two factors including importance attributed toward potential losses, and probability of loss for some particular consequences (San Martín & Camarero, 2009). Consumer perceived risk regarding e-commerce adoption is attributed to the elements of transaction frequency, intention to shop in the future, attitude toward a particular service delivery channel, and/or e-commerce adoption. It is stated that potential elements of the internet technology adoption to shape consumer perceived risk are not the same (Harridge-March, 2006). They are likely to be different in different types of technology adoption for being able to make the users attracted to use the technology.

It has been reported that different risk sources or facets which may lead to impact the internet shopping adoption. Researcher founded main facets of the consumer perceived risk regarding internet technology adoption including social and psychological risks (Li & Huang, 2009; Yang, Pang, Liu, Yen, & Tarn, 2015), but the change in impact of the existing factors; internet technology adoption may not be similar in future (Eggert, 2006). Few empirical pieces of evidence show that shopping behavior internet has been reported to be negatively influenced by economic, performance, privacy, and social factors. These all factors are expected to provide their negative impact on overall consumer perceived risk for negatively affecting the internet technology adoption (Crespo et al., 2009). The internet technology adoption is likely to not be positively affected by all the potential beliefs, intentions, and attitudes but there can also be some negative factors to impact. The level of experience to use technology is likely to shape the consumer adoption behavior regarding e-commerce (Chang & Tseng, 2013).

E-CRM has its concern with the delivery of effective relationship marketing programs on internet service. The role of ECRM is primary to develop a good level of attitude among the customers to adopt internet technology. The adoption of e-commerce technology can be done with confidence by the customers when there is the existence of ECRM (Samadi & Yaghoob-Nejadi, 2009; Sims & Xu, 2012). It can be simply argued that when there will be potential adoption of the internet technology then there will be high chances of getting control over the potential outcomes. Howcroft, Hamilton, and, Hower, (2002) describe numerous factors which encourage internet banking adoption enlightening the significance of time efficiency, lower fees, 24/7 services, coverage in a popular area and good quality services. They also discuss the significance of difficulty in use, security concerns and poor access to different delivery channels. These factors discourage internet banking adoption.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Many other factors which are discussed in the literature are user experience, accuracy, transaction rapidity, customer friendliness, customer convenience and involvement as well (Liao & Cheung, 2002), privacy and bank trustworthiness (Akinci, Aksoy, & Atilgan, 2004).

Fadare, (2015) investigated the perceived risk intention to utilize internet banking adoption. Martins, Oliveira, and Popovič, (2014) designed a model which combined two theories named “Unified theory of acceptance” and “Use of technology,” also described as (UTAUT). Kesharwani and Tripathy (2012) results postulate that the intrinsic risk such as computer self-efficacy while extrinsic risk like social, privacy risk employs a considerable impact on the adoption of internet banking. Farzianpour, Pishdar, Shakib, and Toloun, (2014) highlight elements of customers’ perceived risk analysis .examined factors reducing the intention to adopt internet banking services involve privacy and social risks.

Luo et al., (2010) concluded that, privacy risk, and social risk, performance and time risk negatively affect consumers' intention toward IB adoption. Roy & Sekhon, (2016b) endorsed results of Lee, (2009); Luo et al., (2010); Martins, Oliveira, et al., (2014); Rawashdeh, (2015); Yang et al., (2015), Khedmatgozar and Shahnazi, (2018). On these bases, we conceptualized that privacy risk, and social risk negatively impact internet banking adoption.

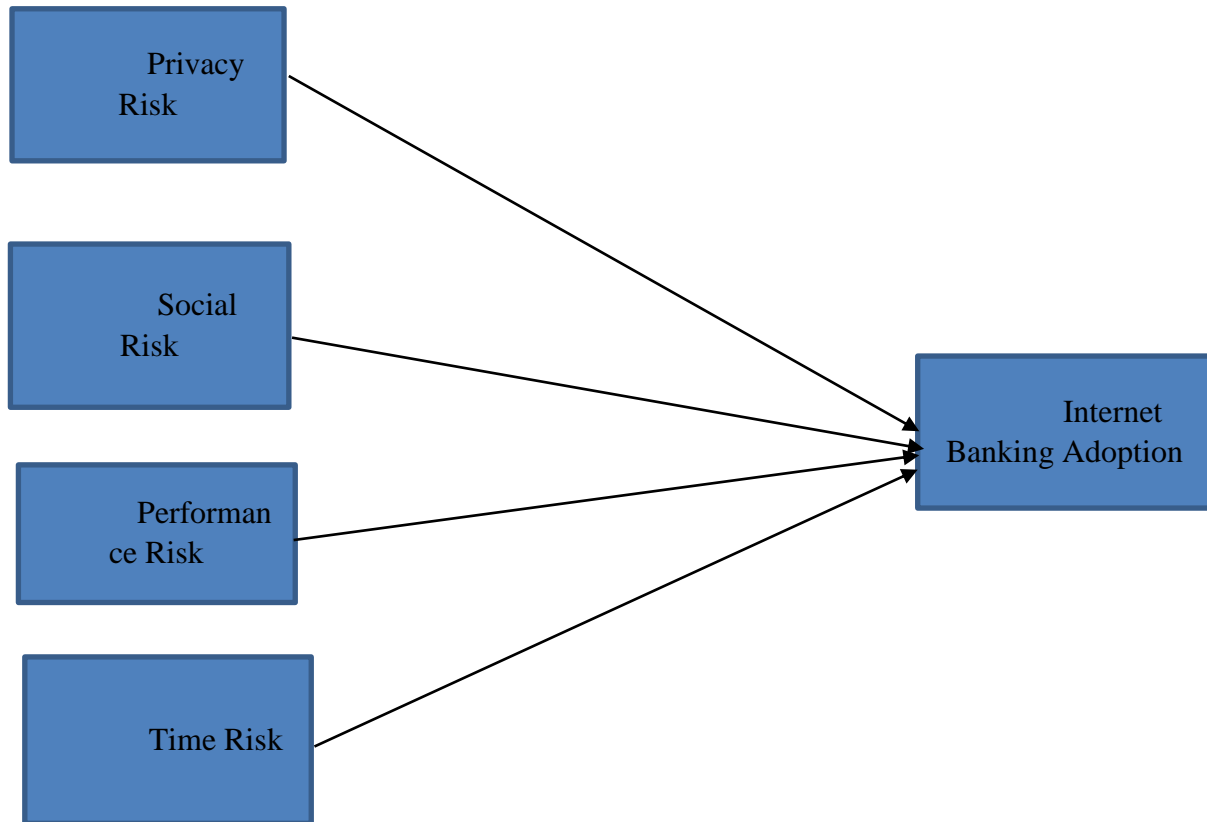
**H1:** Privacy risk has a negative impact on internet banking adoption

**H2:** Social risk has a negative impact on internet banking adoption

**H3:** Performance risk has a negative impact on internet banking adoption

**H4:** Time risk has a negative impact on internet banking adoption

**Theoretical Framework**



**Methodology**

The present investigation is both quantitative and explanatory. We used a self-administered questionnaire to evaluate the significant association between various factors (Aydın, 2014; Khedmatgozar, &Shahnazi, 2018; Roy, et al., 2017). The questionnaire consisted of the demographic and variable values of the study. A five-point Likert scale was used to collect the data and the scale is ranging from “strongly disagree=1” to “strongly agree=5” Total of 44 items are used to measure all variables. 500 self-administered questionnaires were delivered in person and through mail to collect the data.

The present investigation is both quantitative and explanatory. We used a self-administered questionnaire derived from to evaluate the significant association between factors. Raosoft Inc calculator is used to selecting the sample size at the 95% level of confidence and keeping the 5% error margin we choose the minimum 377\* sample size as supported by (see for instance Raosoft.Inc, 2004; Rao & Rao, 2009). For pilot testing 55 questionnaires were delivered only 51 questionnaires were received for pilot testing.

Structural equation modeling technique was used to examine the relationship between exogenous and endogenous variables. run preliminary data analysis, reliability test and path



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 analysis technique were used to examine the impact of performance, time, and financial risks on internet banking adoption. The sampling technique's appropriateness was tested through Kaiser-Meyer-Olkin (KMO) and Bartlett's test was used for Elementary Factor Analysis (EFA) as followed by Mukherjee & Nath (2003).

## Results

### Demographic Characteristics

Data was gathered by using questionnaires on the independent and dependent variables. Respondents were of different age groups, there were 26 respondents of 40 and above, 200 respondents were from the 28-37 age group while 197 lies between 18-27 age group, and 54 were from the 38-47 age group. The study sample consists of 477 respondents who retains varying qualification i.e. 11 of them hold metric or under metric qualification, twenty-five of them hold an intermediate degree and 132 of them were undergraduate. Interestingly, 64.65% of sample retains master and higher degrees and it is quite influential that these respondent faces sever risks from adopting internet banking. It is noted that the majority of respondents earn up to 60000 and just 75 of 477 earn more than 76000 a month. To minimize gender bias author included both male and female respondents. However, 85% of them were male and the rest of the sample consisted of female respondents from different classes and education as well as income levels. Interestingly, about 86% of study's respondents are having bachelor's and master's degrees and about 53% earn from 31-60000. It is revealed that educated people are well known of the risk associated with internet banking. As per previous literature, it could be assumed that either most of them are yet not connected with the IB or are not usual users of IB. Further, it exposes the way stakeholders portray IB adoption. On contrary to this, demographics reveal that 76% of respondents just earn to meet their basic desires as their income level remains at 60,000.

### Reliability Analysis

Our results show significant values of alpha as both endogenous and exogenous variables have values more than 0.70. Reliability analysis showed that the Cronbach's alpha values for all the variables were lying within the acceptance range i.e., .712 to .841 (Table 2). The variance inflation factor (VIF) explains the fluctuation in regression variance by retaining  $R^2$  zero. VIF is normally used to meet the basic assumptions of data normality. This test reveals the multicollinearity issues among independent variables. The study reveals that all variables have VIF values less than 4 (table 2). Therefore, it is argued that over data is normally distributed and there is no multi-issue in the dataset (Gujarati, 2009).





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 2. Reliability Analysis**

Sr. no	Variables	Cronbach's alpha ( $\alpha$ )	VIF
1	Internet Banking adoption	0.914	1.281
2	Privacy Risk	0.749	1.318
3	Social Risk	0.791	1.214
4	Time Risk	0.841	1.431
5	Financial Risk	0.712	1,491

### Path Analysis

Results of the study show that the variables retain significant negative relation with the IB adoption while one of five rejected to support the proposed variable. Particularly, privacy risk has a negative impact on IB adoption as the  $\beta$  coefficient is -0.312 and lies in the critical region of -5.119 with a p-value of 0.00. It is revealed that customers do not avoid banking adoption as they perceive that IB adoption is good in performance and time management and no financial risk involved in IB adoption. Further, study results endorse perceived risk theory see for instance (Khedmatgozar, &Shahnazi, 2018; Roy, et al., 2017).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 5. Path analysis results with coefficient and their associated p-values.**

			Estimate	S.E.	C.R.	P	Supported
IBA	<---	PR	-.312	.031	-5.119	***	Accepted
IBA	<---	SR	-.257	.024	-4.320	***	Accepted
IBA	<---	TR	-.257	.024	-4.320	***	Accepted
IBA	<---	PR	-.257	.024	-4.320	***	Accepted

Secondly, end-users move away from the adoption of IB as they assume that minor mistakes could lead to major losses while operating the new IB system. Time risk has shown a higher  $\beta$  coefficient as  $-.257$  with  $0.024$  as standard error and significant p-value. IB users avoid opting for the new system as many of the respondents reveal that they have no time to understand the new operating system. While answering the questions, they responded that the new IB system may need more time to understand as it is quite difficult from paper as well as other modes of banking. Further, they reveal that in case of any hurdle, misconception, an issue they need much time to understand and resolve. It is acceptance of our hypothesized objective as time risk restricts customers from the adoption of the new internet banking system. These results are also supported through an extensively discussed theory of perceived risk as well technology acceptance model (TAM) which is advocated as adoption of the theory of reasoned action (TRA) (see, for instance, Bashir, &Madhavaiah, 2015).

While responding to financial risk, they reveal that we do not adopt IB as it can create a loss of amount due to entrance of wrong account number, transaction error, and hacking of accounts. This may serve to severe loss to their low incomes. These results are also supported



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 by both prevailing literatures as well as the theory of PRT see for example (Moradi, Ghomian, & Sarjanian, 2012; Alam, Musa, & Hassan, 2009).

Finally, answering to performance risk it was argued that due to technological advancement, unique products, and trust it is difficult to adopt IB. It is also revealed that time risk in transaction patterns rigid their behavior toward IB adoption. Results of the study reveal that these risks demoralize non-users and thus, users restrict themselves from IB adoption.

Overall, these results are an indication of a significant relationship between internet banking adoption and predictor variables. The structural model also provides a correlation between predictor variables. It is presented that no predictor variable has a correlation coefficient of more than 0.60.

### **Conclusion**

The purpose of this research is to evaluate the influence that social and privacy issues have on people's use of online banking. Internet banking is seen as a modified form of traditional banking channels since it cuts costs and improves efficiency for customers, including corporations as well as private people. The adoption of IB is gaining a substantial amount of popularity in academic circles as well as in the financial industry. According to the findings of the research, the coefficient values are lower than 0.6, which indicates that there is no problem with autocorrelation among the predictor variables. The p-value gives an indication of whether or not there is a significant association between the predictor and the dependent variables. Further, there is an inverse correlation between the use of online banking and the danger of invasion of privacy, which is corroborated by Khedmatgozar and Shahnazi (2018). While there is no considerable social risk associated with IB adoption. We perform factor analysis, also known as CFA and EFA, on the data in order to evaluate its dependability and validity. In order to carry out the EFA, we ran the KMO and Bartlett's test, and the outcomes showed that the KMO value was 7.82, which was higher than the threshold of 0.50 for KMO. The result obtained by Bartlett was likewise significant, achieving a p-value of 0.000. The EFA identified eigenvalues larger than 1, and the amount of variance remained more than 60% throughout the analysis. In addition, the value of Cronbach's alpha surpasses the minimum requirement of 0.7, which is recommended in the scholarly literature. According to the findings of the study, end-users are deterred from adopting IB because they believe that even relatively slight errors when running a new IB system might result in significant financial losses. They answered to the queries by stating that the new IB system may need more time to comprehend since it is rather tough to transition from paper and other forms of banking modes. In addition, they explain that in the event that there is a barrier, a misunderstanding, or a problem, they need a significant amount of time to comprehend it and find a solution. These findings are also supported by a theory of perceived risk that has been widely studied, in addition to a technology acceptance model (TAM) that is proposed as adoption of the theory of reasoned action (TRA) see for instance (Bashir, & Madhavaiah, 2015). According to the research that has been done, it can be said without a doubt that there is a negative and substantial relationship between privacy threats and the use of online banking.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## References

Akinci, S., Aksoy, S., Atilgan, E., 2004. Adoption of Internet banking among sophisticated consumer segments in an advanced developing country. *Int. J. Bank Market*. 22 (3), 212–232.

Arthur Grubb (2000) *Myth vs Reality in Financial Services: What your Customers Really Want*. Deloitte Consulting.

Ariff, M. S. M., Sylvester, M., Zakuan, N., Ismail, K., & Ali, K. M. (2014). Consumer perceived risk, attitude and online shopping behaviour; empirical evidence from Malaysia. Paper presented at the IOP Conference Series: Materials Science and Engineering.

Bashir, I., & Madhavaiah, C. (2015). Consumer attitude and behavioural intention towards

Bandura, A., 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice-Hall, Englewood Cliffs, NJ. Internet banking adoption in India. Article in *Journal of Indian Business Research*, 7(1), 67–102.

Burnham B (1996) *The Internet's Impact on Retail Banking*. Booz-Allen Hamilton Third Quarter.

Chang, E.-C., & Tseng, Y.-F. (2013). Research note: E-store image, perceived value and perceived risk. *Journal of Business Research*, 66(7), 864-870.

Crespo, Á. H., Del Bosque, I. R., & de losSalmones Sánchez, M. G. (2009). The influence of perceived risk on Internet shopping behavior: a multidimensional perspective. *Journal of Risk Research*, 12(2), 259-277.

Currie W (2000) *The Global Information Society*. Wiley.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1003.

Duclaux D (1996) *The Call of the Web* ABA Banking Journal, Financial Times. Internet Poses Growing Threat to Traditional Banks.

Eggert, A. (2006). Intangibility and perceived risk in online environments. *Journal of Marketing Management*, 22(5-6), 553-572.

Fadare, O. A. (2015). A survey on perceived risk and intention of adopting internet banking. *The Journal of Internet Banking and Commerce*, 21(1).



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Farzianpour, F., Pishdar, M., Shakib, M. D., & Toloun, M. R. S. H. (2014). Consumers' perceived Risk and Its Effect On Adoption Of Online Banking Services. *American Journal of Applied Sciences*, 11(1), 47.

Frust, K., Lang, W. W., & Nolle, D. E. (2000). Internet... - Google Scholar. (n.d.).

Hanafizadeh, P., & Khedmatgozar, H. R. (2012). The mediating role of the dimensions of the perceived risk in the effect of customers' awareness on the adoption of Internet banking in Iran. *Electronic Commerce Research*, 12(2), 151–175.

Harridge-March, S. (2006). Can the building of trust overcome consumer perceived risk online? *Marketing Intelligence & Planning*.

Hassan, A. M., Kunz, M. B., Pearson, A. W., & Mohamed, F. A. (2006). Conceptualization and measurement of perceived risk in online shopping. *Marketing Management Journal*, 16(1).

Howcroft, B., Hamilton, R., Hewer, P., 2002. Consumer attitude and the usage and adoption of home-based banking in the United Kingdom. *Int. J. Bank Market*. 20 (2), 111–121.

Jacoby, J., & Kaplan, L. B. (1972). The components of perceived risk. *Advances in Consumer Research*, 3(3), 382–383.

Kesharwani, A., & Tripathy, T. (2012). Dimensionality of perceived risk and its impact on Internet banking adoption: An empirical investigation. *Services Marketing Quarterly*, 33(2), 177-193.

Khedmatgozar, H. R., & Shahnazi, A. (2018). The role of dimensions of perceived risk in adoption of corporate internet banking by customers in Iran. *Electronic Commerce Research*, 18(2), 389-412.

Little, D., services, D. M.-J. of retailing and consumer, & 2006, undefined. (n.d.). Consumer perceptions of risk and uncertainty and the implications for behaviour towards innovative retail services: the case of internet banking. Elsevier.

Lam R, Burton S (2005) Bank Selection and Share of Wallet among SMEs: Apparent Differences between Hong Kong and Australia. *Journal of Financial Services Marketing* Pp: 204-213.

Liao S (1999). The Adoption of Virtual Banking: An Empirical Study. *International Journal Information Management* 19: 63-74.

Liao, Z., Cheung, M.T., 2002. Internet-based e-banking and consumer attitudes: an empirical study. *Inf. Manage.* 39 (4), 283–295.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Li, Y.-H., & Huang, J.-W. (2009). Applying theory of perceived risk and technology acceptance model in the online shopping channel. *World Academy of Science, Engineering and Technology*, 53(1), 919-925.

Luo, X., Li, H., Zhang, J., & Shim, J. P. (2010). Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: An empirical study of mobile banking services. *Decision support systems*, 49(2), 222-234.

Marche, S., & McNiven, J. D. (2003). E-government and e-governance: The future isn't what it used to be. *Canadian Journal of Administrative Sciences*, 20(1), 74–86.

Martins, C., Oliveira, T., Information, A. P.-I. J. of, & 2014, undefined. (n.d.). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. Elsevier.

Mukherjee, A., & Nath, P. (2003). A model of trust in online relationship banking. *Emerald.Com*, 21(1), 5–15.

Podder, B. (2005). Factors Influencing the Adoption and Usage of Internet Banking: A New Zealand Perspective.

Rahi, S., Ghani, M. A., & Ngah, A. H. (2019). Integration of unified theory of acceptance and use of technology in internet banking adoption setting: Evidence from Pakistan. Elsevier. doi:10.1016/j.techsoc.2019.03.003

Rawashdeh, A. (2015). Factors affecting adoption of internet banking in Jordan: chartered accountant's perspective. *International Journal of Bank Marketing*, 33(4), 510-529.

Raza, S. A., & Hanif, N. (2013). Factors affecting internet banking adoption among internal and external customers: A case of Pakistan. *International Journal of Electronic Finance*, 7(1), 82–96.

Roselius, T. (1971). Consumer Rankings of Risk Reduction Methods. *Journal of Marketing*, 35(1), 56–61.

Roy, A. & Sekhon. (2016). Predicting internet banking adoption in India: A perceived risk perspective. *Journal of Strategic Marketing*, 25(6), 418–438.

Roy, S. K., Balaji, M. S., Kesharwani, A., & Sekhon, H. (2017). Predicting Internet banking adoption in India: A perceived risk perspective. *Journal of Strategic Marketing*, 25(5-6), 418-438.

Samadi, M., & Yaghoob-Nejadi, A. (2009). A survey of the effect of consumers' perceived risk on purchase intention in e-shopping. *Business Intelligence Journal*, 2(2), 261-275.

San Martín, S., & Camarero, C. (2009). How perceived risk affects online buying. *Online Information Review*.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Sathye, M., 1999. Adoption of Internet banking by Australian consumers: an empirical investigation. *Int. J. Bank Market*. 17 (7), 324–334.

Tan, M., & Teo, T. S. H. (2000). Factors Influencing the Adoption of Internet Banking. *Journal of the Association for Information Systems*, Vol. 1.

Tan, B. (2002). Understanding consumer ethical decision making with respect to purchase of pirated software. *Journal of Consumer Marketing*, 19(2), 96–111.

Yang, Q., Pang, C., Liu, L., Yen, D. C., & Tarn, J. M. (2015). Exploring consumer perceived risk and trust for online payments: An empirical study in China's younger generation. *Computers in human behavior*, 50, 9-24.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Desirability of Gender in Advertisements: Know the Pakistani Viewer's Perspective**

Zara Imran

The University of Lahore

Dr. Irsa Mehboob

Independent Researcher, Dubai

Dr. Shrafat Ali Sair

University of the Punjab, Lahore

Dr. Zia-ur-Rehman Rao

University of the Punjab, Lahore

Dr. Saeed Ahmad Sabir

University of the Punjab, Lahore

### **ABSTRACT**

The objective is to examine the link between various aspects that influence the function of consumer attraction in light of advertising. The research incorporated five primary independent factors drawn from marketing literature, namely form of presentation, product type, credibility, location, and argument, in order to determine the significance of each variable's effect on gender role attractiveness in the context of Pakistani advertising. This is done to emphasize the phenomenon of promotion and to establish whether commercials have a significant part in influencing customers' perceptions about items in a shopping environment due to gender role attraction. The paper used a deductive approach with quantitative research methodology. The research was conducted using the stratified random sampling covering four major departments in Punjab University with usable sample of 500 out of planned sample 450. The data was distributed through questionnaire under cross sectional time frame. Results were checked through statistical techniques namely Descriptive Statistics, Pearson Correlation, Regression and One Sample Test. The results of research allowed the researchers to observe that variables like product type and argument did not prove to be vital element in gender role attraction. Credibility of the gender role is most attractive for viewers. However, the mode of presentation (style of communication/gestures) of gender role and location of advertisement is also found to be attractive for the viewers. The researchers conducted a statistical analysis of the consequences of gender role attraction by varying presentation method, product kind, credibility, location, and argument. It is carried out to check the impact of gender role attraction Pakistani TV commercials from the business students as unit of analysis considering this type of study to be unique in Pakistani market, this research holds a landmark of its own.

**Keywords:** Mode of presentation, product type, credibility, gender role attraction of consumers, location, and argument.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Introduction**

Men and women change into a specific gender at various stages of their lives. Prior to actually examining the feminine and masculine gender stereotypes, it is crucial to understand the distinction between sex and gender. For this study, we took into account how gender roles are depicted in the media and how viewers are affected (Roth-Cohen et al., 2022). Consumers' purchasing choices are influenced by advertising, particularly by the gender roles that are stressed in the adverts. Businesses can benefit from this study's advice on how to promote their goods in an appealing manner to customers.

Adults have a part in gender development while selecting clothes, purchasing toys, and watching television programme. In the media, gender roles often play a significant role by depicting women as nurturing, kind, supportive, concerned with appearance, and sensitive to others, while men are portrayed as rational, competitive, self-regulating, aggressive, financial providers, business experts, and governing over women, and governing over women. The presentation method or communication style of the principal character who is delivering the product is a component of the behaviour of the role (Molinillo et al., 2022).

There are different dimensions of information transformation because the salient gender roles in the advertising impose a negative impact on target audience (O'Rourke et al., 2022). According to European Parliament report the conventional methods in advertising (e.g., children care by women) limiting the self-development opportunities. These stereotypes should be eradicated to achieve adequate opportunities in different domains of life (e.g. career, income) and this is the point of concern of this report which requires the modern techniques in mode of presentation (Aramendia-Muneta et al., 2020).

Text Channel, Auditory Channel and Visual Channel, these are three modes which come under the variable mode of presentation now-a-days with the advancement of technology these are the fastest means of transferring information to the target audience. Through Text Channel information is sent via SMS, through Auditory Channel a person-to-person communication is made and in Visual Channel the message is communicated through video (El Hedhli et al., 2021). It has been established that accurate representations of roles are dependent on three aspects: an adequate match between the gender of the represented model and the gender image of the product; the context in which the portrayal takes place; and the



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 portrayal's literateness and realism. There are many other reasons why a celebrity endorser could be more influential than others (Sokolova & Kefi, 2020).

The consumers most attract to the product due to location. The previous study and the authors say that the brands and the products are like as open letter for the customers. As a consequence of not anticipating engaging information on public displays, consumers develop so-called display blindness, which poses a significant challenge to grabbing their attention. Therefore, it is necessary to develop methods for attracting more attention to the content of public displays. The method described in evaluates a user's activity in real time and utilizes this data to dynamically adjust the screen's content components. People are more likely to be susceptible to the influence of a woman who is collaborative and communal, and whose ambitions seem to be more focused on helping others accomplish their objectives than on her own (Knoll et al., 2011). However, since being warm and likeable is obligatory for women but not for males, likeability is more strongly connected with social influence for women than for men (Carli, 1989). In other words, a guy may exert influence even if people do not really like him, but a woman must be likeable in order to exert influence (Eisend, 2010).

To make a product is important but to sell this product is too much important. And we talk about selling the importance of advertising methods and techniques cannot be denied. Whatever ingredients you have used for designing the product, if your advertising strategy fails to present the product in proper way, your product will be squandered. With the passage of time advertising has become a specialized field because nowadays the consumer decisions are influenced by the advertisement, gender roles in the ads and its demographics. This is an area of concern for the businesses, marketer and advertising agencies to undertake the research to know that what the factors which affect buying decisions are. This shows that understanding people concern about gender roles. To understand the purchasing behaviour of consumers in a nation, it is a good starting point to examine how individuals perceive the gender role in advertising and how these perceptions influence their purchasing behaviour. Examining five factors, including Mode of presentation, Product type, Credibility, Location, and Argument, the primary objective of this research is to analyze the influence of gender roles appeal in advertising on students of Business Departments at a Pakistani public university.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
The research is beneficial for companies, marketers, and advertising agencies because it gives insight into gender role attractiveness in advertising and assists them in presenting their products in a manner that is appealing to consumers. It raises knowledge of the aspects that might influence customers' attractiveness to advertising. It assists firms, marketers, and advertising agencies in gaining a better knowledge of the consumer's perspective on advertising. Lastly, it assists in gaining a better grasp of what influences the consumer's attention the most in advertising.

## Literature Review

A gender role is a collection of cultural and behavioral standards or qualities that are believed to be socially suitable for persons of a certain sex. These norms and characteristics differ depending on the gender of the individual. The distinction between masculinity and femininity is one that is defined by gender role. Adults play a gender role in the selection of clothes, toys, and television programme for their children just as much as they do in other aspects of their lives. Parents, friends, siblings, volunteers, and members of corporate boards are just few of the roles that men and women play in today's society. Consumers are drawn to the gender roles that are portrayed in commercials, which in turn influences their judgments over what to purchase (Pan et al., 2022).

When it comes to watching and analysing advertising messages, women and men react to very different stimuli than one another. Men have a favorable reaction to playing masculine parts, while women have a positive reaction to playing feminine ones. Because of this, images of hunters or bubble baths are uncommon in commercials for items aimed at women. On the other hand, images of hunters and bubble baths are common in advertisements aimed at males. It's fascinating to see how women are more likely to utilize things and be affected by imagery that they perceive as male, while men are less likely to be influenced by imagery that they perceive as feminine (Ohme et al., 2009). There are various circumstances in which women and men react differently, such as the use of sporty imagery: Women are not likely to be affected by athletes unless they are competing at a professional level in their sport, but males are more likely to depict themselves as athletes even if they do not compete at a professional level. As a result, men and women of any gender are likely to



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 react differently when shown a picture of an athlete. This is true even if they are of the same gender (Gurgu et al., 2020).

The role behavior includes the mode of presentation which means body movement or style of communication of the central figure who is presenting the product. There are different dimensions of information transformation because the salient gender roles in the advertising impose a negative impact on target audience (Lewis, 2005). According to European Parliament report the conventional methods in advertising (e.g., children care by women) limiting the self-development opportunities. These stereotypes should be eradicated to achieve adequate opportunities in different domains of life (e.g. career, income) and this is the point of concern of this report which requires the modern techniques in mode of presentation (Parliament, November 20, 2008). When we talk about studies which observe the variables affecting the gender roles in advertising, we cannot deny mode of presentation which considerably important (Hazlett & Hazlett, 1999).

The purpose of this research is to investigate how the orientation of gender roles and the kind of product affect the efficiency of advertising. According to the statistics that are shown in the published research, the gender role orientation does not have a significant impact on the efficiency of advertising, but it does play a significant influence when the audience is analysing the commercials (Kitsa & Mudra, 2020). Despite the significant shifts in roles that have occurred within the society, idealism has not been eradicated. According to the results, those who identified with a conventional role orientation indicated a more positive product value than those who identified with a nontraditional advertising for the same product. Furthermore, it teaches us that the efficiency of advertising is improved when the role depictions of the advertiser are congruent with the role orientation of the receiver (Rodero et al., 2013).

According to the findings of a large number of earlier research, participants repeatedly said that they disapproved of stereotyped portrayals of men and women seen in advertising and other contexts. The responses to advertising and commercial spokespersons, as well as their behaviour about their desire to make a purchase, were more positive in reaction to gender stereotypical advertisements than they were to non-traditional advertisements. Compared to the findings of the previous research, the general public



Proceedings

ISSN 2617-8028

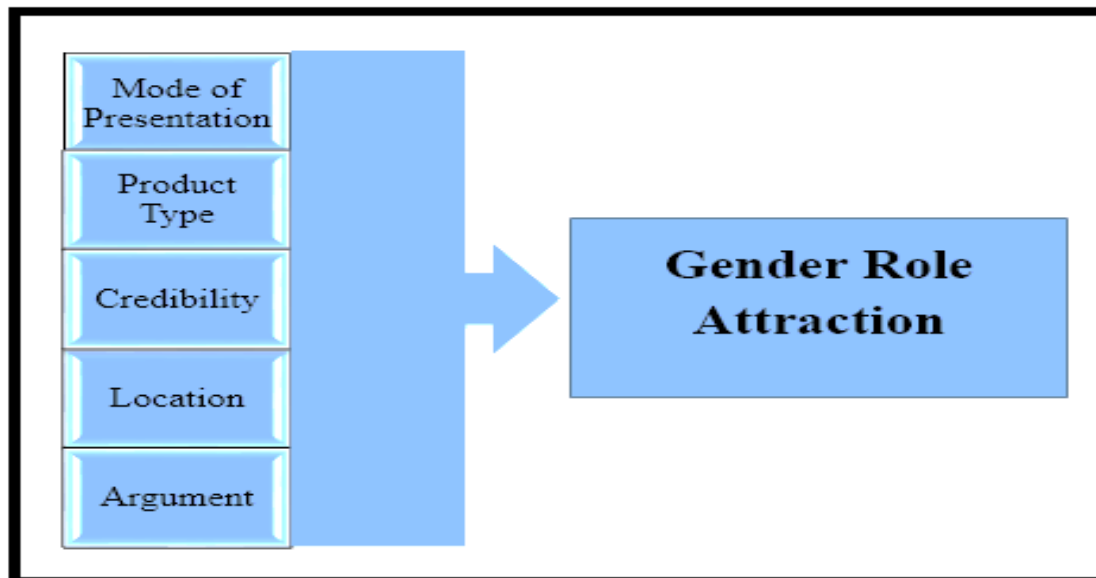
7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 reported a higher level of familiarity and comfort with advertisements that used gender stereotypes (Gurgu et al., 2020; Kitsa & Mudra, 2020; Molinillo et al., 2022).

The placement of the advertisement is one of the most important factors in gender-based advertising. Location is the single most important factor in attracting customers to the product. According to the findings of the earlier research as well as the authors of that study, consumers should see brands and goods as "open letters" to the company. Users develop a condition known as "display blindness" as a consequence of the fact that they do not anticipate finding fascinating information on public displays. This is the primary difficulty with drawing the attention of the user. As a result of this, there is a need to investigate other methods for attracting more attention to the information presented in public displays. The method described in performs real-time analysis of the actions taken by a user and makes use of the resulting data to dynamically alter the presentation of content items on the screen (Lambrecht & Tucker, 2019).

The vast majority of studies have shown that people continue to think of women as being friendlier and nicer than males. Unfortunately, the image of a warm and caring woman has evolved into a restrictive stereotype, and society now expects women to conform to this image. People are more likely to be open to the influence of a woman if she is cooperative and communal, and if it seems that her ambitions are focused more on assisting others in achieving their goals than on her personal advantage (Mokhlis, 2009). According to research, women's impact is directly proportional to their capacity for effective communication in a community manner that demonstrates an absence of self-interest. Verbal and nonverbal acts, such as expressing agreement and demonstrating support for others or clearly saying that one is driven to serve or benefit others, are examples of communal behaviours. Communal behaviours may also take the form of statements (Farrell et al., 1982). Women who do not behave communally and who instead priorities their own interests are looked down upon by other people.

**Theoretical Framework:**

This study investigates the relationship between the dependent variable gender role attraction in advertising of students and the independent variables mode of presentation, product type, credibility, location, and argument.



**Methodology**

The quantitative research was employed for the study. In addition to this, it details the process of data collecting and analysis at each of the distinct stages. In this investigation, probability sampling, more especially the method of stratified random sampling, was used. It is used in situations in which the population may be divided into similar subsets. Additionally, the term "strata" refers to the situation in which these sub-sets do not overlap one another. Subjects can typically be categorized in strata-based sampling on a natural basis, taking into account factors such as age, education level, gender, and so on. In an environment like this, all of the groups were given an equal opportunity to participate, and careful selection aided in coming to conclusions about the research that were generally applicable. Additional careful selections were made in order to compile the data from a variety of students attending a wide variety of schools and institutions and participating in a variety of programme. In order to accomplish this goal, students were chosen based on their gender and



7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 the level of education they had achieved (bachelor's, master's, doctoral, etc.). The selection was narrowed down to four of the most important departments at Punjab University. These educational institutions are the Institute of Administrative sciences, the Institute of Business and technology, the Institute of Business Administration, and the Hailey College of Commerce. The researchers went to four distinct departments of the organization. The data collection process takes close to a month to complete. Two hundred and fifty students filled the survey.

## Results

### Validity and Reliability

The validity and reliability study has evaluated the quality of the questionnaire's useful prediction. Convergent validity (using AVE) was used to evaluate the measurement model's construct validity, while factor loadings were used to evaluate the model's reliability. As shown in Table 3, the values of the factor loadings for the two variables are greater than the cutoff value of 0.6 (Afthanorhan, 2013).

---

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Argument	0.736	0.759	0.823	0.587
Credibility	0.809	0.83	0.864	0.562
Gender role attraction	0.775	0.785	0.838	0.528
Location	0.822	0.855	0.866	0.529
Mode of Presentation	0.725	0.727	0.802	0.512
Product type	0.712	0.716	0.874	0.776

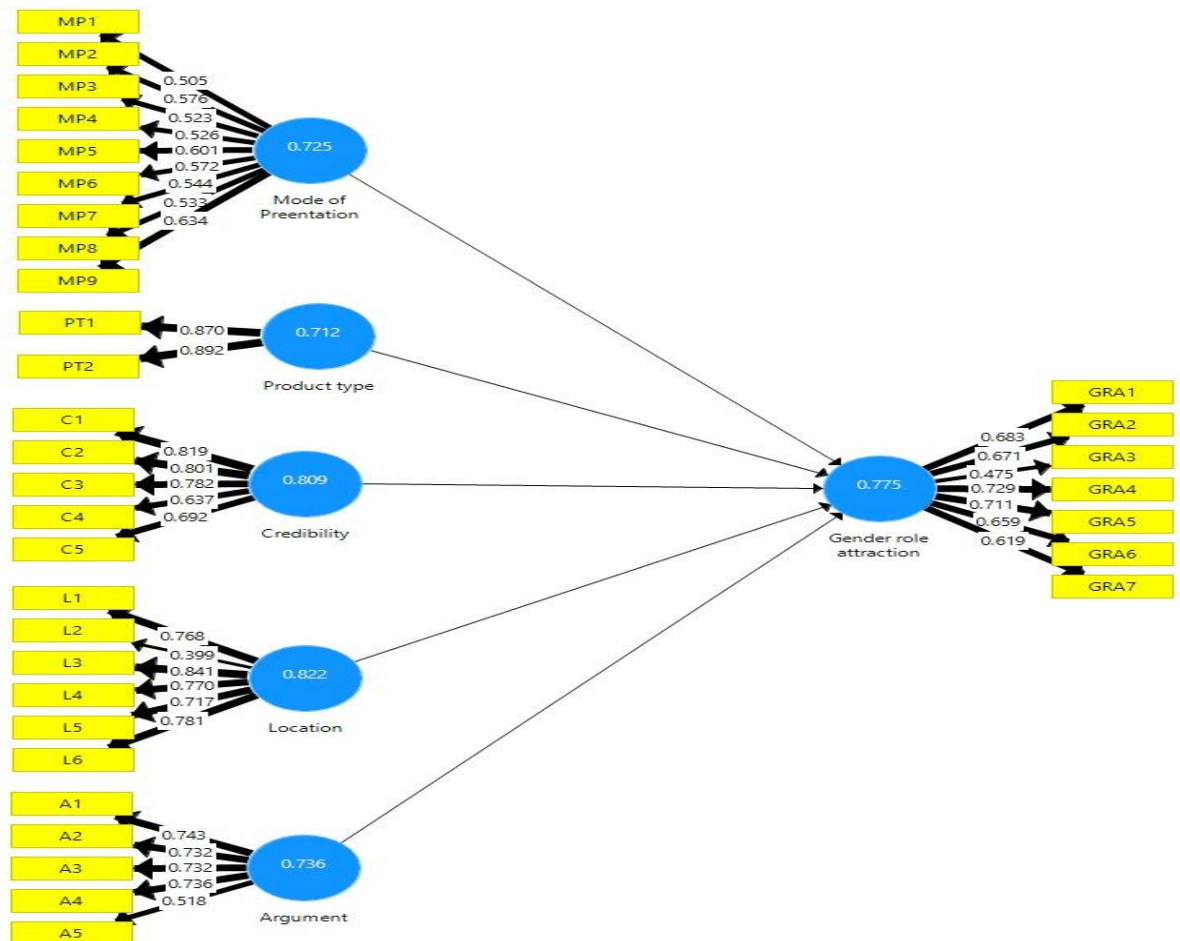
---

The discriminant validity results are shown in Table 2. For the HTMT, correlations between factors should not be greater than 0.90. As shown in Table 2, the HTMT results ranged from 0.29 to 0.506, which is below the cutoff value. These findings reflect the questionnaire's high level of discriminant validity.



**Table 2 Discriminant Validity of Constructs**

	Argument	Credibility	Gender role attraction	Location	Mode of Presentation	Product type
Argument						
Credibility	0.402					
Gender role attraction	0.506	0.563				
Location	0.315	0.56	0.402			
Mode of Presentation	0.314	0.352	0.429	0.488		
Product type	0.086	0.406	0.491	0.29	0.305	





**Figure 1: Reliability Analysis**

**Testing of Hypothesis**

Based on the research framework, the direct effects between studied variables were analyzed using SEM and are presented in Table 3. Table 3 illustrates the values of path coefficients, standard errors, *t*-statistics, and *p*-values for Argument, Credibility, Location Mode of Presentation, and Product type as an independent variable has significant and positive effect on gender role attraction. The results of the study indicated that all the null hypothesis are rejected.

**Table 3: Structural Equational Modeling**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Argument -> Gender role attraction	0.164	0.175	0.04	4.105	0
Credibility -> Gender role attraction	0.331	0.317	0.049	6.69	0
Location -> Gender role attraction	0.085	0.084	0.034	2.487	0.015
Mode of Presentation -> Gender role attraction	0.141	0.154	0.041	3.41	0.001
Product type -> Gender role attraction	0.108	0.091	0.042	2.549	0.012

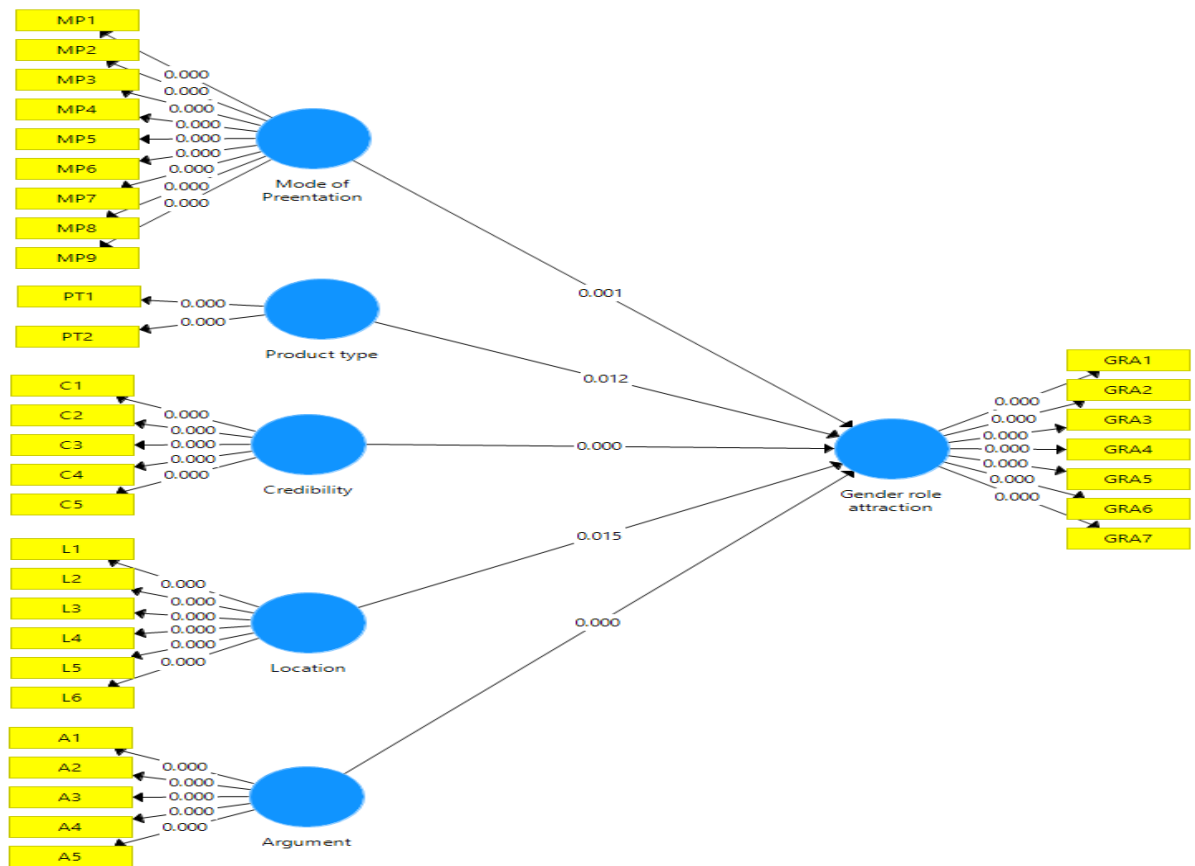


Figure2. Structural Equational Modeling

## Conclusion

The purpose of this research is to analyze the factors that influence the gender role appeal in advertisements among students enrolled in higher education institutions via the use of a survey. Due to the nature of the study, which was quantitative, the variables of manner of presentation, product kind, credibility, location, and argument were altered appropriately. The researcher was able to obtain the necessary information with the assistance of a well-designed questionnaire, and then extract the data with the assistance of the most recent statistical tools and methodologies.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

The results of research allowed the researchers to observe that variables like product type and argument did not proved to be vital element in gender role attraction. Credibility of the gender role is most attractive for viewers. The marketers can employ credible figures and gender roles to advertise in this market of young consumers so that they have an attraction and liking for their advertisements. The mode of presentation (style of communication/gestures) of gender role and location of advertisement is also found to be attractive for the viewers.

Businesses should sell their goods by casting personalities and gender roles with sufficient credibility to attract clients. The men and women seen in ads should be physical perfection personified. These models are regarded as the epitome of physical attractiveness and fitness, and viewers strive to emulate them by buying goods. Therefore, gender roles in advertising should be either directly associated with the promoted product or service, or indirectly used as decorative elements.

In today's competitive environment, the usage of a celebrity spokesperson is vital to influencing purchasing decisions and attracting customers. Celebrities are seen as credible by consumers; hence, a celebrity should be employed in advertising to encourage positive product attitudes and purchasing intentions among customers. Communication across gender roles is vital as well. If the product symbol matches the customer's self-image, he or she will demonstrate a high degree of interest in purchase. Similarly, methods must be developed for attracting more attention to material on public displays. If the placement of the advertising is advantageous and persuasive, then the gender role is most likely to impact viewers. In order for client satisfaction with a product to be high, the placement of ads for any brand should be well-known.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## References

- Afthanorhan, W. (2013). A comparison of partial least square structural equation modeling (PLS-SEM) and covariance based structural equation modeling (CB-SEM) for confirmatory factor analysis. *International Journal of Engineering Science and Innovative Technology*, 2(5), 198-205.
- Aramendia-Muneta, M. E., Olarte-Pascual, C., & Hatzithomas, L. (2020). Gender stereotypes in original digital video advertising. *Journal of Gender Studies*, 29(4), 403-419.
- Eisend, M. (2010). A meta-analysis of gender roles in advertising. *Journal of the Academy of Marketing Science*, 38(4), 418-440.
- El Hedhli, K., Zourrig, H., & Becheur, I. (2021). Celebrity endorsements: Investigating the interactive effects of internalization, identification and product type on consumers' attitudes and intentions. *Journal of Retailing and Consumer Services*, 58, 102260.
- Farrell, R. G., Stonington, D. T., & Ridgeway, R. A. (1982). Incomplete and inevitable abortion: treatment by suction curettage in the emergency department. *Annals of Emergency Medicine*, 11(12), 652-658.
- Gurgu, E., Gurgu, I.-A., & Tonis, R. B. M. (2020). Neuromarketing for a better understanding of consumer needs and emotions. *Independent Journal of Management & Production*, 11(1), 208-235.
- Hazlett, R. L., & Hazlett, S. Y. (1999). Emotional response to television commercials: Facial EMG vs. self-report. *Journal of advertising research*, 39(2), 7-7.
- Kitsa, M., & Mudra, I. (2020). Gender stereotypes of women in television advertising in Ukraine. *Feminist Media Studies*, 20(3), 381-397.
- Knoll, S., Eisend, M., & Steinhagen, J. (2011). Gender roles in advertising: Measuring and comparing gender stereotyping on public and private TV channels in Germany. *International Journal of Advertising*, 30(5), 867-888.
- Lambrecht, A., & Tucker, C. (2019). Algorithmic bias? An empirical study of apparent gender-based discrimination in the display of STEM career ads. *Management science*, 65(7), 2966-2981.
- Lewis, D. (2005). Mathematics: Probing Performance Gaps. *Science*, 308, 1871-1872.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Mokhlis, S. (2009). Determinants of choice criteria in Malaysia's retail banking: An analysis

of gender-based choice decisions. *European Journal of Economics, Finance and Administrative Sciences*, 1(2), 1450-1467.

Molinillo, S., Japutra, A., & Ekinici, Y. (2022). Building brand credibility: The role of involvement, identification, reputation and attachment. *Journal of Retailing and Consumer Services*, 64, 102819.

O'Rourke, A.-M., Carrillat, F. A., & Wang, P. Z. (2022). Is brand differentiation necessary for success? The role of purchase goal and confidence in the brand's position. *Journal of Marketing Management*, 38(3-4), 369-397.

Ohme, R., Reykowska, D., Wiener, D., & Choromanska, A. (2009). Analysis of neurophysiological reactions to advertising stimuli by means of EEG and galvanic skin response measures. *Journal of Neuroscience, Psychology, and Economics*, 2(1), 21.

Pan, C., Abbas, J., Álvarez-Otero, S., Khan, H., & Cai, C. (2022). Interplay between corporate social responsibility and organizational green culture and their role in employees' responsible behavior towards the environment and society. *Journal of Cleaner Production*, 366, 132878.

Parliament, E. (November 20, 2008). *Report on how marketing and advertising affect equality between women and men.*

Rodero, E., Larrea, O., & Vázquez, M. (2013). Male and female voices in commercials: Analysis of effectiveness, adequacy for the product, attention and recall. *Sex roles*, 68(5), 349-362.

Roth-Cohen, O., Kanevska, H. S., & Eisend, M. (2022). Gender roles in online advertising. *Journal of Gender Studies*, 1-15.

Sokolova, K., & Kefi, H. (2020). Instagram and YouTube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions. *Journal of Retailing and Consumer Services*, 53, 101742.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Organizational Agility Effects by Cloud-based Facilitation and Fosters Workplace Incivility Moderator Role of Leadership and Mediation Impact of Coworker Support, Alters Employee Behavior**

Dr. Shrafat Ali Sair

University of the Punjab, Lahore

Kaleem Ullah

Lincoln University College, Malaysia

Fajjar Ali

COMSATS University

Dr. Zia-ur-Rehman Rao

University of the Punjab, Lahore

Dr. Muhammad Usman

University of the Punjab, Lahore

**Abstract**

Many industries are dramatically changing their structure in this globalized world by adopting the latest technologies to improve their framework and social networks. Latest technologies include state-of-the-art in which virtualization, embedded systems, cloud computing, and Internet-of-things. However, Small and Medium Enterprises (SME's) involvement in adopting cloud technologies and mapping is more considerate because it elaborates its utilization for growing the company's efficiencies.

However, different perspectives play a role in this scenario to be accomplished, such as leadership can be a moderating role in the relationship between organizational agility and cloud-based services. Plus, companies have to face workplace incivility due to physical distress. The whole scenario criticizes because of its leadership impact; any resistance in leadership nature can cause huge losses despite the involvement of facilitation services. However, co-worker emotional and instrumental support and technological change can be done through proper guidelines and management through splendid leadership skills. Leadership can help impose a change in the organizations to enhance their agility and employee performances.

**Introduction**

Many industries are dramatically changing their structure in this globalized world by adopting the latest technologies to improve their framework and social networks. Latest technologies include state-of-the-art in which virtualization, embedded systems, cloud computing, and Internet-of-things. Cloud computing is one of the powerful technologies with impressive features that help grow its reputation to engage more people worldwide. This technology helps in networking, storage, services, and applications. However, Small and Medium Enterprises (SMEs) involvement in the adoption of cloud computing and cloud mapping is the more considerate because it elaborates its utilization for growing the company's efficiencies.

However, different perspectives play a role in this scenario to be accomplished, such as leadership can be a moderating role in the relationship between organizational agility and



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 cloud-based services. Technological change can be done through proper guidelines and management through splendid leadership skills. Leadership can help impose a change in the organizations to enhance their agility and employee performances.

### **Background of the study**

Many organizations have implemented this technology which helps them boost their sustainability and expand their network. It offered them innovation and network engagement, boosting SMEs' productivity and capabilities. Moreover, cloud computing and mapping are advanced technologies that help increase compatibility, security, and reduction in threats. Cloud computing builds the computing paradigm to enhance the scalability and sustainability of information technology systems. This system improves the organization's capacity and provides exceptional service, making the firm robust. The accessibility becomes more advanced, and people get connected, which offers potential benefits to the company and reduces complexities.

Moreover, leadership practices have been implemented to improve the organizational cloud transition and accomplish the goals such as cost reduction, defined objectives, or speed of migration. Many authors have dug into this scenario as it has become the primary factor in bringing change to organizations. As cloud-based services brought significant change in the industry, they made all scientists understand its effect using different mediums and tools such as leadership practices. Some used particular areas to build their studies and analyze their capabilities (Khayer, Jahan et al. 2020).

### **Rationale and justification of the study**

Furthermore, cloud computing's impact on individuals and groups will also be considered, emphasizing service quality and technical skills. The variables we have chosen for this paper are organizational agility as an independent variable, facilitating services such as cloud computing as a dependent variable, and leadership will play the role of moderator. As technology involvement helps the management and employees, it is necessary to determine the change and its impact on organizational performances.

### **Significance of the study**

Cloud computing and mapping are the vast entity that impacts many factors, so understanding them and scrutinizing them is vital as it will reveal the sustainability and scalability of the company. The results will be discussed using theories as far as the quality and accuracy are concerned. The whole scrutinizing will be based on designed research questions and objectives because research help to identify the new roles and responsibilities to prevent the risks and threats. Furthermore, we will add the leadership role as the moderator to understand the role of the practice in this situation as this study is the sign for the managers, so it is vital to study the leadership for better implications (Khayer, Jahan et al. 2020).

### **The gap in the literature**

We studied this topic, and every selection has flaws associated with its implementations, which can only be resolved through exceptional management skills. This study related to the leadership attributes because these are essential factors in leading any technology in the companies. Organizational culture is something sensitive element because every organization has its separate paradigm to deal with it. Implementing any technology requires changes which can be in the environment, behavior, or something else. Leadership influences the decision-making regarding any technology implementation. This study will use leadership as



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
a moderator and culture as a mediation path for organizational agility by facilitating cloud computing services (Sneider 2021).

The previous studies have issues like implementing different aspects and not covering the whole gap. No study identifies all the flaws and limitations that occurred in this technology implementation. Every country's organization has different cultures and adopts different leadership roles, so conducting a study based on the country does not represent it. For example, the study about the adoption of cloud computing services in Lebanon and cloud computing adoption and its impact on SME analysis is based in Bangladesh, so these two examples are related to these two countries and their culture. So this problem does not yet resolve (Skafi, Yunis et al. 2020).

### **Contribution to the literature**

This study will determine the details of implementing the leadership roles in SMEs while adopting cloud computing technology. However, the whole limitation and gap cannot be fulfilled because the wide ranges of implementation and all country's leadership practices cannot be settled through a single paper, but the leadership types could be discussed briefly. Moreover, how the implementation occurs in different cultural environments and leadership styles. This paper will elaborate on adopting cloud computing and critical points that help increase organization agility (Deng, Wang et al. 2021).

Implementing tools and techniques will fill these problems, and strategy building is crucial. Strategies help to align the work according to the need and requirements. This part will be covered in the methodology, test, and prepositions because it will explain the positive and negative impact of cloud computing while considering different elements such as leadership, external environment, and activities. The performance is the primary indicator that determines the significance of technology in the operational activities of the companies and its relative advantages.

The study will be conducted through secondary data because analyzing the whole country's organizational data is not easy; we will apply theories to determine the efficiency of cloud computing on organizational performances. Moreover, we will also go through many related literature reviews to clarify the concepts and provide a briefing. The prepositions will be generated because the prepositions offer perceptions and perceives thoughts. At last, after understanding the theories implications, we will be able to generate some relevant knowledge that will help future generations implement cloud computing technology (Akkaya and Tabak 2020).

### **Research Questions**

- What is the relationship between organizational agility and facilitation services?
- How can automated services get influenced by organizational leadership?
- How can leadership moderate the pathway between organizational agility and facilitation services?

### **Research Objectives**

- To determine the relationship between organizational agility and facilitation services.
- To determine the influence of organizational leadership on automated services.
- To determine the leadership role between organizational agility and facilitation services





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Organizing of the study**

The study will focus on a theory-building study where the relationship between organizational agility and cloud-based services will be discussed. Cloud-based services have tons of benefits and flexibility, but applying them in organizations would be the biggest challenge for the management because they have to deal with the effects and reactions of people. Therefore we will use the leadership as the moderator in this concept to boost its efficiency. IT does improve agility, but people's perspective is the primary concern in this regard, so we will study it briefly to come up with the basic need for information with practices and theories.

### **Literature review**

We will conduct the previous study to enhance our knowledge and understand the study gap.

### **Organizational Agility**

Deng et al. (2021) explained the "Organizational agility through outsourcing roles of IT alignment, cloud computing, and knowledge transfer." In this study, the authors choose the adaptive structuration theory (AST) to understand the implementation of organizational agility through outsourcing roles like cloud computing. They examine the IT alignment capabilities and cloud computing adoption to maintain IT-dependent organizational agility. These two variables help improve organizational agility and strengthen the organizational environment. However, after testation, the study provides knowledge of two indicators: the consensus of appropriation (COA) and faithfulness of appropriation (FOA) (Deng, Wang et al. 2021).

Walter (2021) conceptualizes organizational agility where unpredictable environments are discussed. In this article, Walter discusses the impact of organizational agility on business performance because these factors affect the engagement and productivity of an organization. However, this study was based on qualitative analysis and emphasized four agility categories: drivers, enablers, capabilities, and dimensions. Furthermore, the manager and leadership roles were scrutinized to develop the necessary management responsibility (Khayer, Talukder et al. 2020, Walter 2021).

### **Cloud Computing**

Abul Khayer et al. (2020) provide a briefing regarding cloud computing adoption and its impact on SMEs' performance for cloud-supported operations. The dual-stage analytical approach was conducted where structural equation modeling (SEM) and neural network were combined to test the proposed model. These two entities explain the factors such as top management support, cloud provider's influence, self-efficacy, service quality, and many other factors that have a crucial impact on firm performance. However, this study was helpful for the managers, decision-makers, policy makers, and researchers in adopting cloud computing services (Khayer, Talukder et al. 2020).





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Understanding the effect of cloud computing on organizational agility**

Prior literature emphasizes the impact of cloud technology on organizational agility because, in the digitized world, organizations are adopting tools that make them fit into the environment. Many studies have been conducted regarding this factor, but Liu et al., (2018) elaborate their perspective through prior studies based on the Alibaba cloud users in china's survey data. In this study, two CC capabilities were initiated in which flexibility and integration are included because these two significant capabilities help promote agility in organizations (Liu, Chan et al. 2018).

#### **Proposition 1: there is a positive relationship between OA and facilitation services Leadership Agility for Organizational Agility**

Joiner (2019) discussed leadership agility for organizational agility because leadership has become the primary factor among companies worldwide (Joiner 2019). Many managers have implemented leadership theories to enhance the organizational agility related to the company's internal and external environment. However, this study also focuses on cultural elements to demonstrate strategic and operational agility (Joiner 2019).

#### **Proposition 2: automated tools enhance the work capabilities and productivity of the firms. Best leadership practices in MNCs for automated migration tools**

Sneider (2021) defines best leadership practices for adopting cloud computing platforms, and a meta-analysis was conducted (Sneider 2021). This study focuses on MNCs because the impact of leadership practices on them is more extensive than on SMEs, plus technology and innovation involved in MNCs are more common and significant. Automated migration tools such as cloud computing provide massive and potential benefits to the firms. However, three main concepts were applied in the MNCs for leadership purposes: awareness, impact, and actions. MNCs are more competent in markets and work harder to maintain competitiveness, so for this purpose, implementation of best leadership practices (Sneider 2021).

#### **Proposition 3: leadership has a significant role in improving organizational agility and its practices.**

#### **Workplace incivility**

Workplace incivility factors create when employees get extreme stress, job insecurity, unachievable goals, overworking, increased diversity, and many other things. We have studied many research papers to acknowledge this term, and with prior discussion, we understand the major reason for workplace incivility creation is overworking and psychological distress, which change employee behavior. Taylor et al. (2021) discussed it briefly beyond targets and instigators, where they emphasize employee relationships as they impact the targets and agility of an organization. That is why the leadership plays an important role in handling the management and providing them space to explore their talents instead of creating workplace incivility.

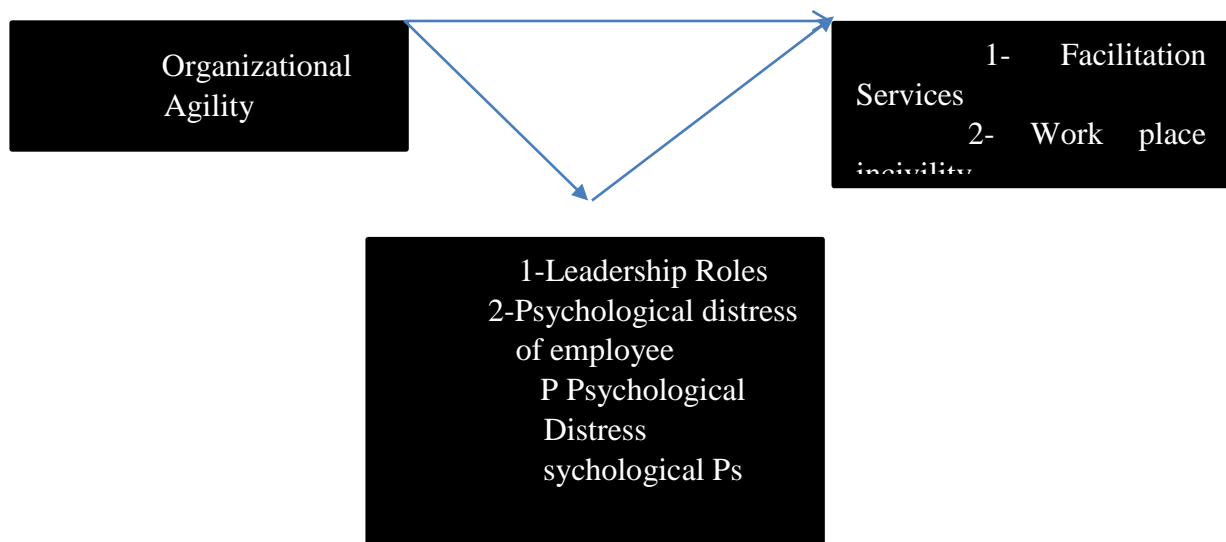
#### **Psychological distress**

Tindle et al. (2022) discussed social support, psychological flexibility, related stress exposure, and psychological distress regarding pandemics. Social anxiety also generates chaos and causes psychological distress. Similarly, employees in cooperative industries

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 face psychological distress due to workload or work incivility behavior. Other factors such as psychological inflexibility and insufficient cooperative mechanisms increase the psychological distress in the organizations and cause a change in employee behavior. The change is always negative as it manipulates employees' thoughts, which impact their behavior and working style (Tindle et al., 2022).

Ramalho et al. (2021) also discuss the fact of psychological distress regarding the impact of covid-19 lockdown on disordered eating behaviors. Any environmental change can bring chaos and disturb mental health, which causes human psychological distress. Disordered eating behaviors result from many factors such as symptomatology, anxiety, depressive circumstances, etc. In this paper, the authors use a cross-sectional study and assess 254 Portuguese adults one week after the end of coronavirus lockdown in Portugal. However, the results indicate the high impact of covid-19 on disordered eating behavior during the lockdown. Hence, these findings help in improving and informing interventions to maintain the mental level of shreds of evidence (Ramalho et al., 2021).

### Theoretical framework



**Hypothesis H1:** there is a positive relationship between OA and facilitation services

**Hypothesis H2:** leadership has a significant and positive role in improving organizational agility and its practices.

**Hypothesis H3:** there is a significant impact of leadership on workplace incivility

**Hypothesis H4:** there is a significantly positive impact of co-worker emotional and instrumental support on the relationship between organizational agility and facilitation services

### Underline the assumption of the theory

In this whole process, leadership is crucial to implementing better decision-making. Organizations require leadership as it helps to build the foundation and improve organizational agility. For this purpose, we need to learn about some core leadership theories and understand what will be most suitable for this theoretical model. Managers are the core assets that help assign tasks and responsibilities among employees; however, leaders address



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 how it should be done. Our model is based on innovational change and a competitive environment. So the magic combination of leadership is required to perform activities efficiently in an organization. Adaptive structure theory (AST) and Technology-Organization-Environment (TOE) are two flexible theories that can be applied in this scenario.

### **Adaptive Structure Theory (AST)**

AST is a flexible theory proposed by M. Scott Poole in which a linear communication model was discussed because group dynamics could be resistant and cause the reduction of propositions and a predictable chain of events. This theory is called adaptive because of its nature and provides a structure compatible with the information technology structures. This theory provides a briefing regarding understanding structure types regarding advanced technology adoption and its emergence in the human actions and interaction with technologies (Moerdijk and Palmgren 2002).

AST theory describes basic social structure rules and predicts the human activities regarding technology resources because technology structures can be the reason to shape the human actions in an organization. Moreover, this theory is based on the decision-making approach, which provokes productivity, satisfaction, rational decision-making, and efficiency. All these terms are the core competencies for the organization as technology help to reduce human error, which is why it offers flexibility in human actions and activities. Although technology has its structure with social structure practices, it could be molded accordingly and affect behaviors (Moerdijk and Palmgren 2002).

AST has three analysis levels, each emphasizing the appropriation and adoption of technology into human interaction. These levels include:

**Micro-Level:** this level focuses on identifying appropriation moves types, examining the technology usage and behavior of group people regarding technology structure, and differentiating between faithful and unfaithful appropriation.

**Global level:** this level of analysis focuses on the whole meeting or the series of meetings.

**Institutional level:** this level of analysis emphasizes longitudinal observation of information systems, with the motive of describing persistent patterns for business units, organizations, and user types.

### **Technology-Organization-environment (TOE) Framework**

TOE theory, represented by Tornatzky and Fleisher in 1990, emphasizes three basic needs that every organization craves: implementation of technological innovations in the context of organization, environment, and technology. All three contexts have appropriate descriptions required for firms to gain competitive advantages and sustainability. Technological context defines the technology's internal and external relevance, including equipment process and implementation (Baker 2012).

The organizational context describes the attributes and resources of organization in which formalization, human resources, and relationships with employees, firm size, amount of slack resources, and degree of centralization is included. Furthermore, the third context is related to the environment, which defines the firm structure, macroeconomics, competitors, and the regulatory environment.

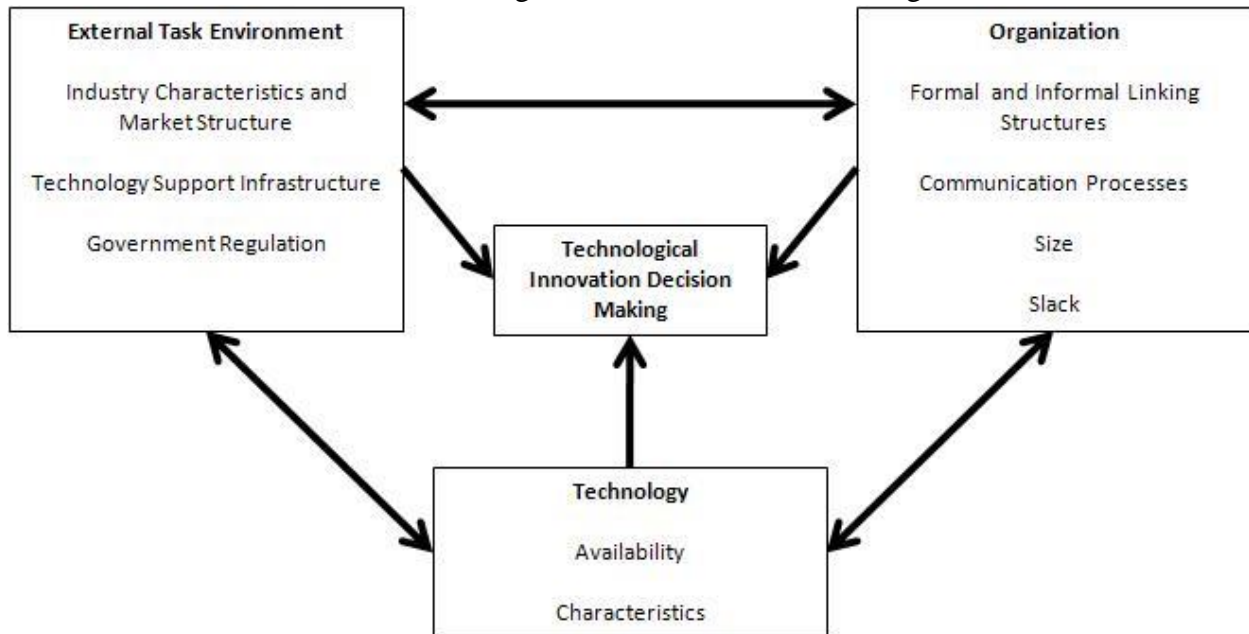


Figure 17: (Baker 2012)

However, behavioral theories and transformational leadership are also some beneficiaries that could bring fast change in innovation and technology and success in business. Moreover, these theories will enhance growth, quality of service, agility, efficiency, job satisfaction, and organizational achievement. Understanding leadership roles is a study that most researchers could not trace better implementation in a particular situation. Here we will understand the leadership styles and theories that best fit the expected cooperation (Yukl 2012).

### Behavioral theory

Other than this, behavioral theories help support decision-making and encourage acceptance of innovation. Acceptance of change is a process, and calm water theory indicates the Lewis theory of change can be applied to adopt the technology. Lewis's theory of change predicts three processes: unfreezing, changing, and freezing the change again. It takes time in all three steps, but with the help of a behavioral approach, it could be done effectively and speedily. The behavioral approach defines different leader's behaviors: task-oriented leaders, participative leaders, status-quo leaders, opportunistic leaders, and people-oriented leaders (Yukl 2012).



### **Transformational leadership style**

It is one of the famous approaches of leadership used to motivate and bring changes in individuals or groups of people through its valuable opinions and ideas. This style has a process that includes psychology because transforming constantly starts from the mindsets. This leadership style focuses on influencing and motivating people to attain the vision and mission. Transformational leadership understands flaws and strengths and helps recognize symptoms of fundamental change. Today's globalization demand leaders to have the capability to push changes that only can conquer through experience, trust, and risk-taking. This style has standards that provoke leaders to compensate workers and explore their values (Bass and Riggio 2006).

This style idealizes attitude, which causes influences people as it refers to the leader to be more optimistic and valued. Transformational leadership also focuses on moral and ethical values as well because the behavior of an organization plays a vital role in bringing change. The significant role of this style is that it motivates and inspires the surroundings, which empowers and encourages the workers. Intellectual stimulation provides space to generate innovation and creativity, making adopting cloud-based services slightly acceptable. Furthermore, individualized consideration makes the workers more worthy, empowers their self-esteem, and makes the leaders more ethical rather than demanding (Carreiro and Oliveira 2019).





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

## **Methodology**

In this study, we surveyed 100 people in several sectors like biomedical engineers, finance officers, quality control engineers, software engineers, students, teachers, and others located in different areas of Pakistan. The respondents have specific age differences and are occupied with different designations. The questionnaire was designed while considering the theories and framework, and it includes four sections a) demographic characteristics in which age, gender, occupation, designation role, and work experiences are included; and b) organizational agility, which is the independent variable of the study contain some questions regarding it; c) facilitation services and culture which are our dependent and mediating variable of the study and define some criticality in questions; and mediating role co-worker emotional and instrumental support that cause impact in employee behavior; and lastly d) leadership roles which play the moderating role in the study.

While conducting the survey, we prioritize our respondents because selecting respondents matters the most and the accuracy of results depends on them. All respondents knew IT and facilitation services, ensuring the content's accuracy and quality.

### **Sample & data collection**

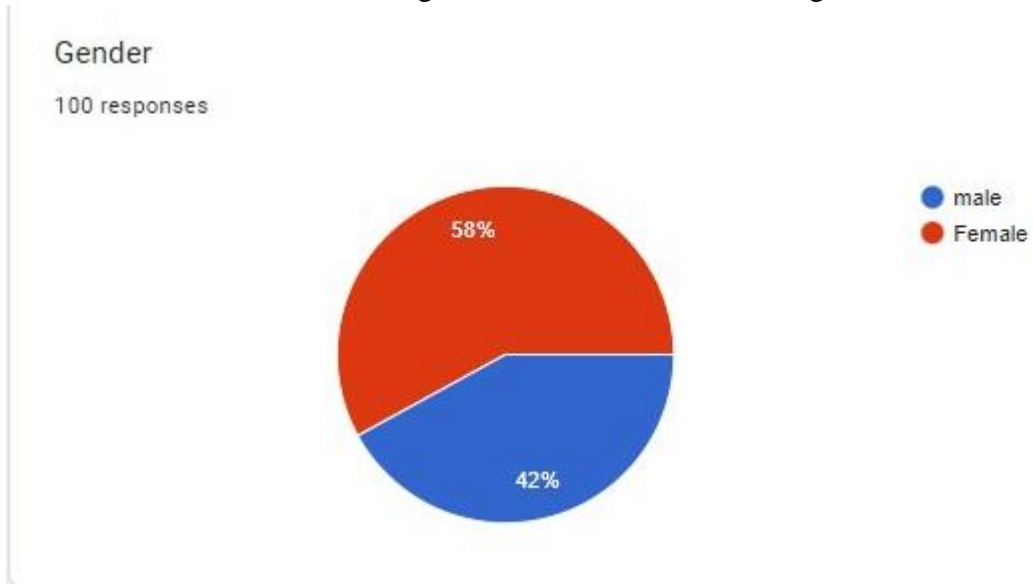
Statistical techniques were used, such as simple random sampling and correlation techniques. The questionnaires will be generated through Google forms and distributed online to get responses from people. We will adjust or fix the count to collect specific data, like 100 responses, and we can analyze the results. Different tests will be conducted for further experiments and accurate results. Tests include linear regression analysis, imputation, normality check, frequency check, and replacement of missing values.

### **Data analysis and results**

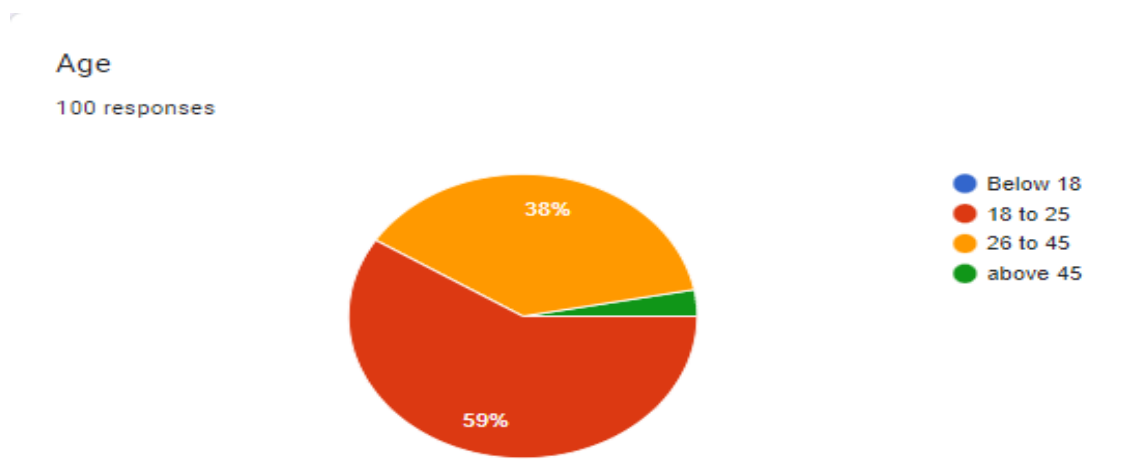
Here we will analyze the collected data from surveys in which demographic analysis and other variable-related questions will be investigated to determine the significance or insignificance. However, quantitative research is insufficient statistically because the total amount of interviews is "100," which is not far enough, but we tried to show enough tendencies to interpret the results.

#### **Demographic analysis**

According to the results, it can be seen that both genders had filled this questionnaire, although the percentage of the female was more than that of the male. The rate of males was 58%, and the percentage of females was 42%. The majority of the respondents ranged from 18 to 25, with the highest percentage among all ages at 59%. The rest all varied according to the percentage divided.



**Figure 18 Gender**



**Figure 19 Age**  
**1.1 Frequency analysis**



# 7TH CBIBM 2022



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

After uploading data on SPSS, firstly, we will check if there is any missing value in the data or not because missing values might manipulate the data results. If missing values exist in the data, then no operation can be performed, and the replacement of the missing value is

Statistics

		age	education	gender	Occupation	nature of organization	Work Experience	what do you think about facilitation services can impact the organizational agility?
N	Valid	100	100	100	100	100	100	100
	Missing	0	0	0	0	0	0	0

Statistics

		encourage innovation represents organizational agility	Developing strategies with flexibility in mind is require for organizational agility	Organizational agility encourages managers to develop the leadership skills of their direct reports	organizational culture play essential role in enhancing organizational agility	Co-worker emotional and instrumental support is boosted in employees through positive organizational aspects?	organizational culture is necessary to establish matters in discipline	Organizational culture has a well-developed change capability
N	Valid	100	100	100	100	100	100	100
	Missing	0	0	0	0	0	0	0

called the imputation method. So to check the missing value, we will act as follow: Analyze> disruptive statistic> frequency.

Here is the result of that action which clearly shows that no value is missing in the data so that we can perform further actions on the data.

### Testing the hypothesis

We have applied different statistical tools such as regression and correlation analysis to determine the significance of data and hypothesis testing.

**Hypothesis H1:** there is a positive relationship between OA and facilitation services

#### Descriptive Statistics

	Mean	Std. Deviation	N
OC_OA	3.0413	.29626	100
OA_FC	3.1333	.44191	100

#### Correlations

		OC_OA	OA_FC
Pearson Correlation	OC_OA	1.000	.388
	OA_FC	.388	1.000
Sig. (1-tailed)	OC_OA	.	.000
	OA_FC	.000	.
N	OC_OA	100	100
	OA_FC	100	100

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.388 <sup>a</sup>	.151	.142	.27440	.151	17.404	1	98	.000

a. Predictors: (Constant), OA\_FC

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.310	1	1.310	17.404	.000 <sup>b</sup>
	Residual	7.379	98	.075		
	Total	8.689	99			

a. Dependent Variable: OC\_OA

b. Predictors: (Constant), OA\_FC

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.226	.197		11.271	.000
	OA_FC	.260	.062	.388	4.172	.000

a. Dependent Variable: OC\_OA

F=17.040 and p= 0.00, and p>0.05 indicate that the H<sup>o</sup> is rejected and the direct relationship is significant to the model. However, the adjusted R square is 14%, which means the variable variation does not explain Y's behavior.

**Hypothesis H2:** leadership has a significant and positive role in improving organizational agility and its practices.

The second hypothesis indicates the moderator's participation in improving organizational agility, so we applied the correlation and regression analysis to these computed variables.

**Descriptive Statistics**

	Mean	Std. Deviation	N
OA_FC	3.1333	.44191	100
leadership	3.5400	.39974	100

**Correlations**

		OA_FC	leadership
Pearson Correlation	OA_FC	1.000	.209
	leadership	.209	1.000
Sig. (1-tailed)	OA_FC	.	.018
	leadership	.018	.
N	OA_FC	100	100
	leadership	100	100

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.209 <sup>a</sup>	.044	.034	.43434	.044	4.482	1	98	.037

a. Predictors: (Constant), leadership





**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.845	1	.845	4.482	.037 <sup>b</sup>
	Residual	18.488	98	.189		
	Total	19.333	99			

a. Dependent Variable: OA\_FC

b. Predictors: (Constant), leadership

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.315	.389		5.951	.000
	leadership	.231	.109	.209	2.117	.037

a. Dependent Variable: OA\_FC

As  $F = 4.482$  and  $p = 0.037$  and we know if  $p < 0.05$ , then  $H_0$  is rejected, and the model becomes statistically significant. The indirect effect of the model shows the significance of the data. However, the adjusted R square is 3%, which means the variable variation does not explain Y's behavior.

**Hypothesis H3:** there is a significant impact of leadership on workplace incivility

**Descriptive Statistics**

	Mean	Std. Deviation	N
OC_OA	3.0413	.29626	100
OA_FC	3.1333	.44191	100
leadership	3.5400	.39974	100

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.388 <sup>a</sup>	.151	.142	.27440	.151	17.404	1	98	.000
2	.635 <sup>b</sup>	.404	.392	.23110	.253	41.162	1	97	.000

a. Predictors: (Constant), OA\_FC

b. Predictors: (Constant), OA\_FC, leadership



**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.310	1	1.310	17.404	.000 <sup>b</sup>
	Residual	7.379	98	.075		
	Total	8.689	99			
2	Regression	3.509	2	1.754	32.849	.000 <sup>c</sup>
	Residual	5.180	97	.053		
	Total	8.689	99			

a. Dependent Variable: OC\_OA

b. Predictors: (Constant), OA\_FC

c. Predictors: (Constant), OA\_FC, leadership

**Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.226	.197		11.271	.000
	OA_FC	.260	.062	.388	4.172	.000
2	(Constant)	1.102	.241		4.563	.000
	OA_FC	.188	.054	.281	3.502	.001
	leadership	.381	.059	.514	6.416	.000

a. Dependent Variable: OC\_OA

As  $F=17.404$  and  $p=0.000$  and as we know  $p<0.05$ , we will reject  $H^0$ , and this indirect model of our data will prove statistically significant; however, the adjusted R square is 14%, which means the variation of variable moderating explains Y's behavior.

**Hypothesis H4:** there is a significantly positive impact of Co-worker emotional and instrumental support on the relationship between organizational agility and facilitation services

**Descriptive Statistics**

	Mean	Std. Deviation	N
OC_OA	3.0413	.29626	100
OA_FC	3.1333	.44191	100
E_IS	2.9160	.62032	100

**Correlations**

		OC_OA	OA_FC	E_IS
Pearson Correlation	OC_OA	1.000	.388	.134
	OA_FC	.388	1.000	.147
	E_IS	.134	.147	1.000
Sig. (1-tailed)	OC_OA	.	.000	.091
	OA_FC	.000	.	.072
	E_IS	.091	.072	.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

N	OC_OA	100	100	100
	OA_FC	100	100	100
	E_IS	100	100	100

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.388 <sup>a</sup>	.151	.142	.27440	.151	17.404	1	98	.000
2	.396 <sup>b</sup>	.157	.140	.27481	.006	.705	1	97	.403

a. Predictors: (Constant), OA\_FC  
b. Predictors: (Constant), OA\_FC, E\_IS

### ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.310	1	1.310	17.404	.000 <sup>b</sup>
	Residual	7.379	98	.075		
	Total	8.689	99			
2	Regression	1.364	2	.682	9.028	.000 <sup>c</sup>
	Residual	7.326	97	.076		
	Total	8.689	99			

a. Dependent Variable: OC\_OA

b. Predictors: (Constant), OA\_FC

c. Predictors: (Constant), OA\_FC, E\_IS

### Coefficients

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.226	.197		11.271	.000
	OA_FC	.260	.062	.388	4.172	.000
2	(Constant)	2.140	.223		9.613	.000
	OA_FC	.253	.063	.377	3.997	.000
	E_IS	.038	.045	.079	.840	.403

a. Dependent Variable: OC\_OA

Hence, introducing a mediator of co-worker emotional and instrumental support between the organizational agility and facilitation services indicates accurate results and  $p=0.05$ , which lie in the accurate range. So our model is statistically significant. However, the adjusted R square is 14%, which does not represent too much Y behavior on X but is still acceptable.

### Discussion

This study focuses on three research questions. Further discussion and their implications are given below.

#### Research question 1 and its theoretical implications

- What is the relationship between organizational agility and facilitation services?



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Preposition 1: there is a positive relationship between OA and facilitation services

According to the TOE theory, adopting technology based on the organizational environment and behavior could be modified through a proper understanding of the internal and external factors. Technological structures and their implementations bring change in the organization, emphasizing productivity and efficiency of the working style. It reduces human error and efforts that bring more opportunities and flexibility in the environment, promoting organizational agility (Baker 2012).

### **Research question 2 and its theoretical implications**

- How can automated services get influenced by organizational leadership?

Preposition 2: automated tools enhance the work capabilities and productivity of the firms.

- **Hypothesis H2:** leadership has a significant and positive role in improving organizational agility and its practices.

For this purpose, Adaptive Structure Theory has been implemented as it was designed to brief the appropriation moves and reduce the complexities among technology adoption and human interaction. This theory provides three analysis levels covering the whole structure and focusing on attaining desired outcomes. Technology brought flexibility and opportunity; however, it all depends on human interaction, so this theory explains the social structure and ideal appropriation processes, which refer to positive impacts of decision-making (Moerdijk and Palmgren 2002).

### **Research question 3 and its theoretical implications**

- How can leadership moderate the pathway between organizational agility and facilitation services?
- **Hypothesis H3:** there is a significant impact of leadership on workplace incivility  
**Hypothesis H4:** there is a significantly positive impact of Co-worker emotional and instrumental support on the relationship between organizational agility and facilitation services

Preposition 3: leadership has a significant role in improving organizational agility and its practices.

For this purpose, we used the transformational and behavioral leadership approach that defines leadership styles that can significantly impact organization agility and the adoption process of facilitation services. Transformational leadership indicates that motivation and inspiration can continue the workflow and improve the relationship between leaders and employees. On the other side, behavioral leadership theory provides different characteristics of a leader's nature which could be adopted to make the implementation possible (Bass and Riggio 2006).

### **Limitation**

In this paper, we did not conduct any particular survey and targeted any area to generate numerical data. This study was non-empirical and did not test any hypothesis, but we used prepositions. This study did not define the organizational setting in terms of numbers, so we applied only theoretical assumptions to understand the relationship between organizational agility and facilitation services with the mediate leadership role. Moreover, the cost calculation of adoption of facilitation services was also not listed in this study as there was no



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
practical implications define whether the prepositions are significant or not, so this will be concluded as the study's limitation.

### **Future recommendations**

This study predicts the environment for the managers or the leaders of the organization to make their firm get adjusted in the technological change or the adoption of change. Moreover, expanding the scope, testing the hypothesis, including more participants, studying the culture, employee training, and understanding of both qualitative and quantitative analysis in this perspective.

### **Conclusion**

In a nutshell, this study works on understanding organizational agility that is affected by automated services with the role of leadership. In this study, the gap we found was discussed in previous studies based on particular areas of cultures and leadership that define the adoption of automated services. In this study, we presented the theories which can be used despite the particular country's perspective. We have solved the research questions which indicate the relationship among variables; however, this study is based purely non-empirical where we did not test any hypothesis but made assumptions based on prepositions. Hence, the study's defined significance helps future researchers produce effective outcomes with these variables.

### **References**

- Akkaya, B. and A. Tabak (2020). "The link between organizational agility and leadership: A research in science parks." Academy of Strategic Management Journal **19**(1): 1-17.
- Baker, J. (2012). "The technology–organization–environment framework." Information systems theory: 231-245.
- Bass, B. M. and R. E. Riggio (2006). Transformational leadership, Psychology press.
- Carreiro, H. and T. Oliveira (2019). "Impact of transformational leadership on the diffusion of innovation in firms: Application to mobile cloud computing." Computers in Industry **107**: 104-113.
- Deng, C.-P., et al. (2021). "Organizational agility through outsourcing: Roles of IT alignment, cloud computing and knowledge transfer." International Journal of Information Management **60**: 102385.
- Joiner, B. (2019). "Leadership agility for organizational agility." Journal of Creating Value **5**(2): 139-149.
- Khayer, A., et al. (2020). "The adoption of cloud computing in small and medium enterprises: a developing country perspective." VINE Journal of Information and Knowledge Management Systems.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Khayer, A., et al. (2020). "Cloud computing adoption and its impact on SMEs' performance for cloud supported operations: A dual-stage analytical approach." Technology in Society **60**: 101225.

Liu, S., et al. (2018). "Understanding the effect of cloud computing on organizational agility: An empirical examination." International Journal of Information Management **43**: 98-111.

Moerdijk, I. and E. Palmgren (2002). "Type theories, toposes and constructive set theory: predicative aspects of AST." Annals of Pure and Applied Logic **114**(1-3): 155-201.

Skafi, M., et al. (2020). "Factors influencing SMEs' adoption of cloud computing services in Lebanon: An empirical analysis using TOE and contextual theory." IEEE Access **8**: 79169-79181.

Sneider, E. M. (2021). BEST LEADERSHIP PRACTICES OF MULTINATIONAL CORPORATIONS IN THE USE OF AUTOMATED MIGRATION TOOLS IN ADOPTION OF COMMERCIAL CLOUD COMPUTING PLATFORMS: A META-ANALYSIS, Purdue University Graduate School.

Walter, A.-T. (2021). "Organizational agility: ill-defined and somewhat confusing? A systematic literature review and conceptualization." Management Review Quarterly **71**(2): 343-391.

Yukl, G. (2012). "Effective leadership behavior: What we know and what questions need more attention." Academy of Management perspectives **26**(4): 66-85.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**A Case of Construction Projects in Pakistan:  
Role of Authentic Leadership and Employee Engagement in the Relationship of  
Psychological Capital and Engineers' Performance**

Tabassum Rasool,  
Allama Iqbal Open University  
Dr. Saleha Javed  
University of the Punjab, Lahore  
Dr. Shrafat Ali Sair  
University of the Punjab, Lahore  
Mahreen Siddique  
University of the Punjab, Lahore  
Dr. Muhammad Usman  
University of the Punjab, Lahore

**Abstract**

This research pertains to the construction industry employees' psychological functioning and perspicacity. As the nature of the construction projects is very stressful and demanding, the main purpose of our research was to investigate the mediation effect of "employee engagement" and moderation effect of "authentic leadership". The comprehensive framework of the study provides the better understanding and has addressed the vast spectrum of literature regarding the impact of "PsyCap" on engineers' performance with mediation effect of "employee engagement" and moderation effect of "authentic leadership". A survey-based approach using a questionnaire was adopted to achieve the objectives of the study. Data was collected from engineers working in construction projects in Pakistan. SPSS was used to test the framework. We found that PsyCap has positive impact on employee engagement. We also concluded after analyzing the data that PsyCap has positive linear relationship with employees' in-role performance. Our results depict that employee engagement mediates the relationship between PsyCap and in-role performance of engineers working at construction projects in Pakistan. Our fourth hypothesis was rejected and we found that authentic leadership does not moderate the relationship between PsyCap and employee performance.

*Keywords:* Psychological capital, Employee engagement, authentic leadership, Employee performance, Engineers

**Research Questions:**

The following are the questions we will address in our research.

1. Does PsyCap (hope, Resilience, Optimism, and self-efficacy) determine the impact on "employee engagement" and "engineers' performance"?
2. Does employee engagement mediate the relationship between PsyCap (hope, optimism, self-efficacy and resilience) and engineers' performance?
3. Does authentic leadership moderate the relationship between PsyCap (optimism, hope, resilience and self-efficacy) and the performance of engineers (engineers working in construction projects in Pakistan)?



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Statement of the Problem:**

Usually, construction workers work under high pressure and intense stress which culminates in job insecurity and dissatisfaction (Toor & Ofori, 2010). Construction workers should be psychologically strong enough to withstand negative behaviors by staying hopeful, optimistic, resilient and efficacious (Ogwueleka & Ogbonna, 2018; Sarwar et al., 2017). It increases their engagement level (Chaurasia & Shukla, 2014; Simons & Buitendach, 2013) and benefits the organization economically (Luthans & Youssef, 2004). If an organization invests on PsyCap there is high performance of employees and highest ROI (Luthans et al., 2007a; Luthans et al., 2007b).

### **Introduction**

World is a global village now and people are more conscious regarding their job, life and work-life balance. Employees can have many job opportunities across the globe. Hence, organizations are focusing more on human resources. The significance of this study highlights the application of the JD-R in the construction industry and with its application to the construction industry domain it enhances the construction industry's engineers' hope, efficacy, resiliency and optimism. There is limited research on PsyCap, employee engagement and authentic leadership in field of project and construction management (Ashraf, 2018; Bell, Powell & Sykes, 2015; Toor & Ofori, 2008; Truss et al., 2013). According to Avey, et al., (2011b) positive psychological resources like PsyCap reduce the stress and anxiety caused by job demands.

After extensively studying and reviewing the literature (Cheng et al., 2007; Luthans & Youssef-Morgan, 2017; Patro, 2013; Toor & Ofori, 2010; Zubair & Kamal, 2017), we found that there is need to do research on the impact of PsyCap on performance of engineers with mediating role of employee engagement and moderating role of authentic leadership. This particular relationship has not been studied in the construction industry of Pakistan. So, we will fill this research gap by studying the impact of PsyCap on performance of engineers (working in construction projects of Pakistan) and how employee engagement mediates and authentic leadership moderates this relationship. Therefore, construction industry has been taken into consideration for its rough, corrupt and unsafe environment which enhance stress in engineers and managers (Ameyaw et al., 2017; Toor & Ofori, 2010). Although most of the CSFs are human related but there is limited research on human behaviors, psycho social relationship & their impact on performance of engineers (Unterhitzenger & Bryde, 2019). PsyCap is very important to enhance performance of employees (Luthans et al., 2008b). Sarwar et al., (2017) emphasized to implement PsyCap in construction industry of Pakistan because it enhances satisfaction and performance of engineers and managers. Luthans et al., (2005) found that, Chinese workers having high levels of PsyCap are more engaged, enthusiastic and high performing at work. Luthans et al., (2008b) said that PsyCap is state like in nature and could be developed or enhanced in employees. So, it is very necessary to develop PsyCap in construction engineers as it shows positive results in Singapore (Toor & Ofori, 2010).

There is dire need to develop PsyCap in construction workers of Pakistan (Sarwar et al., 2017). At the time of selection/recruitment, organizations should consider the PsyCap levels of engineers and after selection there should be trainings and workshops to improve it. Much focus should be given to enhance PsyCap of engineers and managers, because engineers having high levels of PsyCap show less turnover intention (Toor & Ofori, 2010) and have high performance (Luthans et al., 2008b). As we know that according to Luthans et al.,



7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 (2008b) PsyCap is state like in nature and could be developed or enhanced in employees. So, we can enhance PsyCap levels of engineers for high job engagement and performance. Luthans

& Avolio (2009) defines PsyCap as, “it is positive psychological state of individual’s development characterized by hope, efficacy, resilience and optimism”. Dawkins and colleagues (2018) says that “PsyCap is state like in nature”. Employees having high levels of PsyCap have less turnover intention and high work performance (Ogwueleka & Ogbonna, 2018). (Macky & Boxall, 2008; Ogwueleka & Ogbonna, 2018) added that highly involved employees are satisfied and have high performance.

Engaged employees are involved, enthusiastic and have high levels of job satisfaction (Patro, 2013). According to Harter, Schmidt, and Hayes, (2002) job satisfaction and employee engagement have strong and significantly positive relation among them. An employee having enthusiasm and involved in his work physically, intellectually/mentally and emotionally prone to be more engaged in his work and have high levels of engagement (Kahn, 1990). Workers having high levels of engagement show less intention of turnover (Harter et al., 2002). Bailey, Madden, Alfes, and Fletcher (2017) concluded that employee engagement has positive significant relation with well-being and performance. According to Avey et al. (2011b) reason behind success of former American president Obama was his high levels of PsyCap. PsyCap has positive relation with desired/required organizational outcomes and employee behaviors/attitudes (Avey et al., 2011b). PsyCap (HERO) has positive impact on performance of employees (Adil, 2015). PsyCap (HERO) has positive significant relation with employee performance (Kappagoda, Othman & Alwis, 2014).

Schaufeli et al., (2006) defined **employee engagement** as, “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption.” Vigor, absorption and dedication are the three dimensions of engagement (W. Schaufeli & Bakker, 2004). W. B. Schaufeli et al.(2006) stated that, “**vigor** is characterized by high levels of energy and mental resilience at work, the willingness to invest effort in one’s work, and persistence even in the face of difficulties.” and “**dedication** refers to being strongly involved in one’s work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge.” Moreover, “**absorption** is characterized by being fully concentrated and happily engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work.”

*A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*, (2013) defines **project** as; “a temporary endeavor to create a unique product or service”. Luthans et al. (2008b) defined **employee performance** (engineers’ performance) as; “employees’ performance is the product of their ability, the support received to adequately perform their job, and the motivation to perform at high levels.”

Walumbwa et al. (2008) described **authentic leadership** as a “pattern of leader behavior driving and promoting both positive psychological capacities and positive ethical climate, to foster greater self-awareness, internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development”.

According to Chih et al. (2017) there is need of positive managers/leaders in construction industry as it has strong positive impact on the performance of employees working in construction projects. There is negative significant relation between stress, anxiety, cynicism and employee performance (Avey et al., 2011b). Employers are giving more focus on

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 positive attributes of employees and now a days this trend is overwhelming in workplaces (Mills et al., 2013). According to Avey et al. (2011b) positive psychological resources like PsyCap reduce the stress and anxiety caused by job demands. There is negative significant relationship between PsyCap and stress as well as between PsyCap and anxiety (Avey., 2011b).

We are using “Job Demand Resource Theory” (also known as “J-DR Model”) for our research. According to J-DR, high levels of resources increase the performance and engagement levels of employees (Mostert et al., 2011).

*Figure I: Predictions of the Job Demands-ResourcesSource: (Bakker & Demerouti, 2007)*

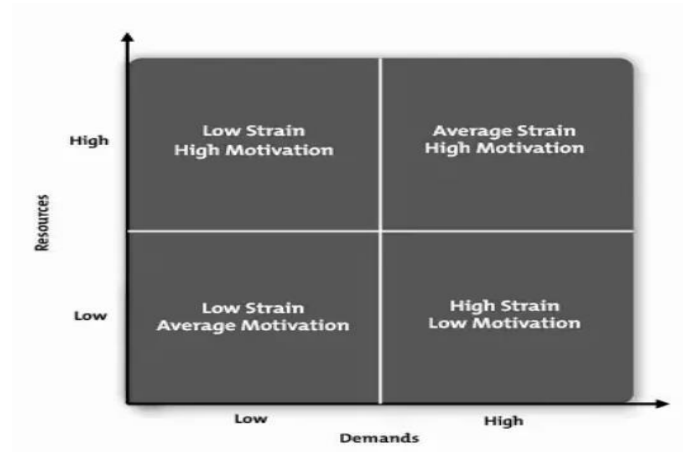
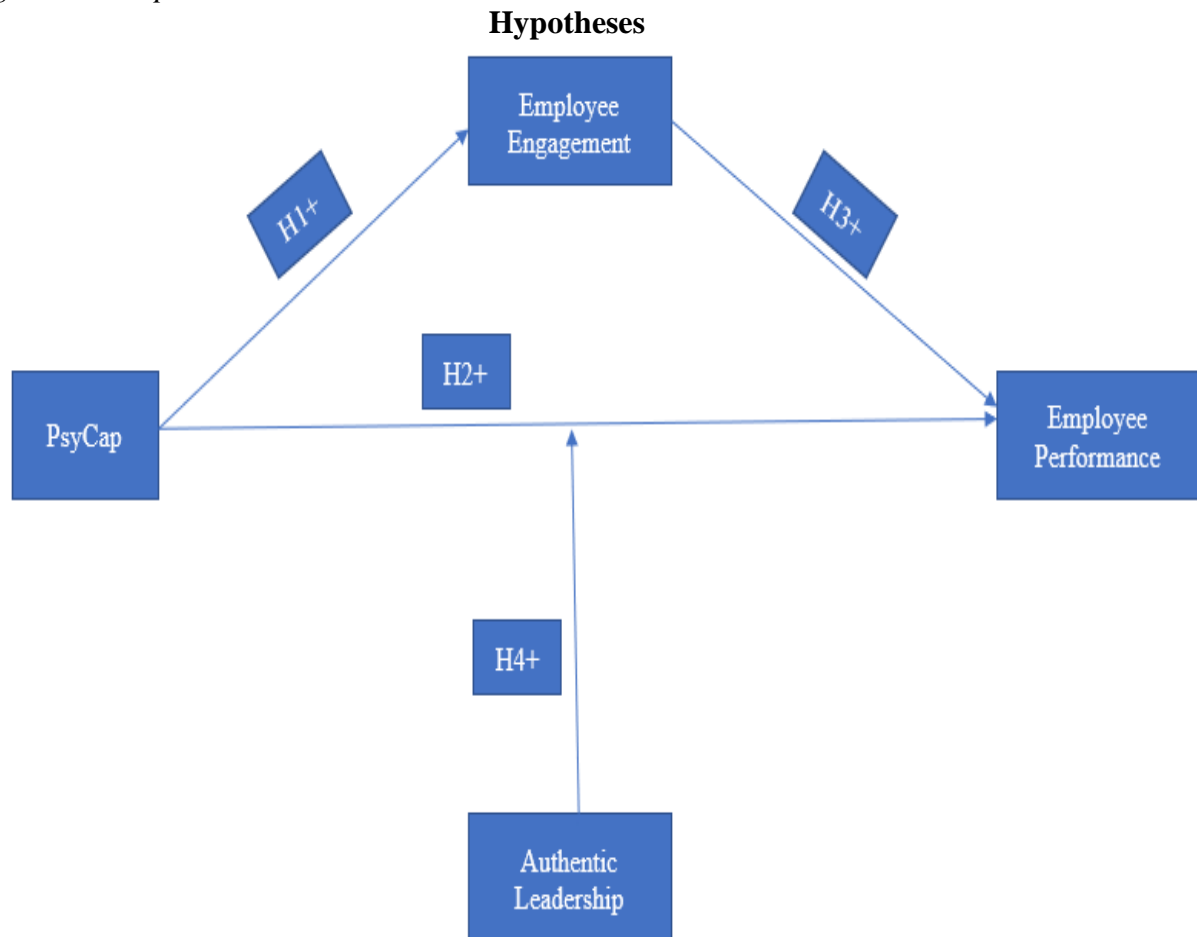




Figure II: Proposed Research Model



H-1: PsyCap has a positive impact on employee engagement.

H -2: PsyCap has a positive impact on engineers’ performance.

H-3: Employee engagement mediates the relationship between PsyCap and engineers’ performance.

H-4: Authentic leadership moderates the relationship between PsyCap and engineers’ performance.

### Methodology

This research is aimed to study the impact of positive psychological factors on performance of engineers working on different construction projects in Pakistan. This research carried in a systematic way by developing a theory, developing four hypotheses and then testing them through different statistical analysis techniques using SPSS software. It is deductive type of research. This is cross-sectional study because data collection was done at the same time to find the impact of positive organizational behaviors on the performance of engineers. We used questionnaire to collect data.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

### **Sampling**

We divided our population in two subgroups, public and private. After this, from each group the data was taken by using simple random sampling. Sample size for this study was 400. We sent 400 questionnaires to different engineers working at different public and private construction projects in Pakistan.

### **Instruments**

We used UWES-9 Scale to measure engagement which is developed by (W. Schaufeli & Bakker, 2004). According to W. Schaufeli & Bakker, (2004) Cronbach's alpha for UWES-9 is in between 0.89 to 0.97 which is said to be 0.93 collectively. Brunetto et al., (2014) added that composite reliability coefficient value for UWES-9 is 0.94. (Seppälä et al., 2009) says that UWES-9 have more construct validity than other versions.

We adopted PCQ 12 scale of PsyCap developed by (Luthans, Avolio, et al., 2007a). Toor & Ofori, (2010) also used this scale and found that Cronbach's alpha is 0.88. Simons & Buitendach, (2013) analyzed PCQ12 by doing CFA (Confirmatory Factor Analysis) and found that this four-factor model is best, reliable and fit to the data. These four constructs (hope, efficacy, resilience and optimism) best describes and meet the criteria of PsyCap (Luthans, 2002a).

To measure authentic leadership, we adopted ALQ (Rater) which was published by (Walumbwa et al., 2008). According to G. Xu et al., (2018) reliability coefficient of this scale is 0.953. ALQ consist of four dimensions and 16 items (Roof, 2014). It best describes and meet the criteria of authentic leadership.

To measure employee performance, we used task performance scale developed by (Leung et al., 2008). It has good reliability having Cronbach alpha value 0.813.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Results**

**Table 1**

Participants' age, gender, salary, qualification, job levels, and experience

Variable	Category	Frequency	Percentage
Age	Upto 25	58	31.2
	26-30	88	47.3
	31-35	20	10.8
	36-40	10	5.4
	Above 40	10	5.4
Gender	Male	155	83.3
	Female	31	16.7
Salary	Upto 30000	35	18.8
	31000-45000	44	23.7
	46000-60000	26	14
	61000-75000	26	14
	Above 75000	55	29.6
Qualification	D.A.E.	18	9.7
	BS Technology (B.Tech)	14	7.5
	B.S./B.Sc. Engineering	93	50.0
	M.S./M.Phil.	59	31.7
	Ph.D.	2	1.1
Job Position	Top Level Management	65	34.9
	Middle Level Management	121	65.1
Sector	Public	77	41.4
	Private	109	58.6
Experience	1-5 Years	114	61.3
	6-10 Years	44	23.7
	11-15 Years	14	7.5
	16-20 Years	3	1.6
	Above 20 Years	11	5.9

Note:  $N = 186$ .

**Table 2**  
Correlation Analysis

variables	n	M	SD	EmpPerf	EmpEngg	PsyCap	AuthLdr
EmpPerf	03	5.60	0.96	-			
EmpEngg	09	5.74	1.09	.573**	-		
PsyCap	12	5.70	0.87	.649**	.661**	-	
AuthLdr	16	5.14	1.19	.416**	.374**	.566**	-

Note: \* $p < 0.05$ , \*\* $p < 0.01$  \*\*. Correlation is significant at the 0.01 level (2-tailed).

In above correlation table all values are positive which shows positive relation of variables and all values are less than 0.7 which shows that there is no multicollinearity among them.

**Table 3**  
Mediation Analysis

Predictor Variable	Outcome Variable	R <sup>2</sup>	B	t	p	95%CI	
						LL	UL
<b>Total Effect</b>							
PsyCap	EmpPerf	.4206	.7167	11.56	>0.001	0.59	0.84
<b>Direct Effect</b>							
PsyCap	EmpEngg	.4372	.8288	11.95	>0.001	0.69	0.96
PsyCap	EmpPerf	.4573	.5300	6.61	>0.001	0.37	0.68
EmpEngg	EmpPerf	.4573	.2253	3.52	>0.001	.10	0.35
<b>Indirect Effect</b>							
PsyCap	EmpPerf		.1867		>0.001	0.44	0.32

Note: R<sup>2</sup>=R square; B=Unstandardized Coefficient; t=t-statistics; p=significance value; CI=Confidence Interval; UL=Upper Limit, LL=Lower Limit.

45.73% variation in employee performance is because of PsyCap and employee engagement. For direct effect of PsyCap on employee performance value of R-Square was 42.06% which is increased to 45.73% after introducing mediating variable employee engagement. Hence  $p < 0.05$  and there is no “0” between LLCI and ULCI which indicates that PsyCap has statistically significant positive relation with employee engagement and employ performance. There is 26.05% partial mediation as well where the coefficient of the indirect effect of 0.1867 compared to the total effect of 0.7167.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**Table 4**

Modrator Analysis

Predictor Variable	Outcome Variable	B	t	p	95%CI	
					LL	UL
PsyCap	EmpPerf	.680	7.738	>0.001	.507	.853
EmpEngg	EmpPerf	.058	1.050	0.259	-.051	.166

$R^2 = 0.424$

Adjusted  $R^2 = 0.415$

Note: = B=Unstandardized Coefficient; t=t-statistics; p=significance value; CI=Confidence Interval; UL=Upper Limit, LL=Lower Limit.

We can see that R Square value is 0.424 which means that 42.4% variation in employees' task performance is because of PsyCap, Authentic Leadership and Moderating Role of Authentic Leadership. (If we focus on these variables, we can achieve 42.4% employee performance). But if we focus on our Model-1 for the impact of independent variable PsyCap on dependent variable employee performance R square value was 0.437 which is decreased rather than increasing and become 42.4% after introducing moderator. Hence  $p < 0.05$  so B1 is statistically significant. It means that in above model PsyCap has positive impact on performance of engineers in the presence of authentic leadership and moderating rule of authentic leadership.

Positive B-Coefficient values depicts that there is positive relation of authentic leadership with engineers' performance but  $p > 0.05$  show that Authentic Leadership is statistically insignificant.

## Discussion

Construction industry is known to be the most complex industry across the globe (Ofori, 1993). Due to temporal nature of construction projects, jobs are also temporary and project based (Toor & Ofori, 2010). Because of this reason, there is a huge pressure of performance in short time period (Toor & Ofori, 2010). It may cause stress to engineers which causes job insecurity, high turnover and low performance (Toor & Ofori, 2010). Involvement of many stakeholders and tough routine of engineers is also observed in construction projects which increases stress (Toor & Ofori, 2010). Construction industry is stressful and there is lot of pressure on engineers and managers. Stress has negative relation with performance of construction managers and engineers (Leung et al., 2008). So, engineers and managers should have high levels of PsyCap to overcome the stress and remain positive which will enhance their engagement level in work and enhance task performance (Luthans & Avolio, 2009).

Business environment is rapidly changing day by day and now in every business, employees play a vital role in success of organization. Construction industry is also a rapid growing industry in Pakistan (Sarwar et al., 2017). It significantly contributes in Pakistan's GDP (Farooqui et al., 2008; Sarwar et al., 2017). So, there is a need to study and explore different aspects of engineers and project managers to enhance their performance.

The present study is about positive organizational behaviors and their impact on the performance of Pakistan engineers working on construction projects. The first objective of the study was to analyze the impact of PsyCap on the engagement of engineers working on





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 construction projects in Pakistan. After analyzing the data, we found that there is positive relation between PsyCap and employee engagement ( $B_1 = 0.829$  and  $t = 11.956$ ,  $p = 0.000$  hence  $p < 0.05$ ). Our findings were in lined with the findings of other researchers like, (Avey et al., 2011; Luthans & Youssef-Morgan, 2017). Previous researches also shows that employees having high levels of PsyCap have high levels of engagement and performance (Toor & Ofori, 2010).

The impact of PsyCap on performance of engineers working on construction projects in Pakistan was favourable. Employees having higher levels of PsyCap have high performance. The existing literature also shows that there is positive linear relationship between PsyCap and employee performance (Avey et al., 2011; Malik, 2013; Toor & Ofori, 2010). Sarwar et al., (2017) also emphasized on the implementation of PsyCap in construction industry of Pakistan.

Moreover, there was partial mediation ( $B = 0.2253$   $t = 3.5205$  and  $P = 0.0005$ ) of employee engagement between psychological capital and performance of engineers working on different construction projects in Pakistan.

The moderating relationship of authentic leadership between PsyCap and employee performance was insignificant in our study. Concept of authentic leadership is new and emerging in the field of project management. Still there is no separate theory on project leadership. Authentic leadership is not yet explored properly in project management and still don't have any separate theory of leadership in project management (Khan et al., 2014). Usually construction project have dirty, rough and tough environment lacking in such kind of positive organizational behaviors (Toor & Ofori, 2010). Much focus is not given to enhance these positive organizational behaviors. There are many other factors which can enhance the psychological capital and performance of employees. Engineers at construction projects are highly educated and they know how to do their work and maintain their psychological capital and performance high despite of the behavior of their immediate boss.

### **Research Implications**

This research contributes theoretically and practically. Theoretically, this study is extending the literature with a new combination of variables on positive organizational behaviors, which are not yet studied. In the construction industry, the concept of positive psychology is new and emerging (Toor & Ofori, 2010). Much focus is not given to PsyCap, authentic leadership, employee engagement and other positive organizational behaviors of engineers working on construction projects and their impact on performance and other desired organizational outcomes (Ogwueleka & Ogbonna, 2018; Sarwar et al., 2017; Toor & Ofori, 2008; Toor & Ofori, 2010).

The findings of this study suggest that construction industries should focus on the positive organizational behaviors of engineers and project managers. If engineers have high performance it will ultimately benefit the organization and project on which engineer is working (ŞEN & BASIM, 2018). As Luthans & Youssef-Morgan (2017) state that PsyCap has highest return on investment. According to (Luthans et al., 2005; ŞEN & BASIM, 2018; Toor & Ofori, 2010) PsyCap has positive impact on performance of engineers and organizations should invest on PsyCap as it has highest rate of return. Findings of this research suggest that there is need to improve authentic leadership at construction projects in Pakistan and it may cause more positive impact on performance, engagement and psychological capital of engineers.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
Another positive and important implication of this research is that technical sector, Pakistan engineering council, ministry of science and technology and construction firms' top management and owner should understand the psychological requirements of engineers. Most of the engineers complained about their top management during survey.

### **Limitations**

In Pakistan, there is no extensive research in engineering syllabus. So, most of the engineers don't know the importance of research. They think it is wasting their time. Sometimes, respondents don't fill the questionnaire properly because they don't know the worth of their responses and due to this reason quality of research may be affected. Due to shortage of time, we used cross-sectional approach. The data was collected at one time. This research is done solely in construction projects while focusing only on engineers working on construction projects in Pakistan. So, we can't generalize it to other sectors or other countries.

### **Future Recommendations**

In future this research could be done in other sectors also. Instead of cross-sectional approach in future researcher can use longitudinal approach to data collection. Authentic leadership could be studied again as a moderator as well as an independent variable. Moreover, the qualitative study can also be fruitful particularly on authentic leadership as this concept is newly emerging in project management. Future researchers should focus on HSE practices and their impact on PsyCap of engineers working on construction projects.

### **Conclusion**

Positive psychology is very important and plays a vital role to enhance the engagement and performance of engineers. We used "Job Demand Resource Theory" to check the role of employee engagement and authentic leadership in the relationship between psychological capital and engineers' performance in Pakistan. PsyCap has a positive impact on the engagement and performance of engineers working on different construction projects in Pakistan.

### **References**

- A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* (5th ed.). (2013). Newtown Square, Pennsylvania: Project Management Institute, Inc.
- Adil, A. (2015). *IMPACT OF POSITIVE PSYCHOLOGICAL CAPITAL ON WORK ATTITUDES , INTENTIONS , AND BEHAVIORS AMONG UNIVERSITY TEACHERS*. Quaid-i-Azam University Islamabad.
- Ameyaw, E. E., Pärn, E., Chan, A. P. C., Owusu-Manu, D. G., Edwards, D. J., & Darko, A. (2017). Corrupt Practices in the Construction Industry: Survey of Ghanaian Experience. *Journal of Management in Engineering*, 33(6). [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000555](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000555)
- Ashraf, H. (2018). *Psychological conflict management climate in general contractor's project organization and its influence on project performance: exploring multiple psychosocial and behavioral pathways* (The University of Hong Kong (Pokfulam, Hong Kong)). Retrieved from <http://hdl.handle.net/10722/265298>
- Avey, J. B., Avolio, B. J., & Luthans, F. (2011). Experimentally analyzing the impact of leader positivity on follower positivity and performance. *Leadership Quarterly*, 22(2), 282–294. <https://doi.org/10.1016/j.leaqua.2011.02.004>
- Avey, J. B., Luthans, F., & Youssef, C. M. (2010). The additive value of positive psychological capital in predicting work attitudes and behaviors. *Journal of Management*,



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
36(2), 430–452. <https://doi.org/10.1177/0149206308329961>

Avey, J. B., Reichard, R. J., Luthans, F., & Mhatre, K. H. (2011b). Meta-Analysis of the Impact of Positive Psychological Capital on Employee Attitudes, Behaviors, and Performance. *Human Resource Development Quarterly*, 22(2), 127–152. <https://doi.org/DOI:10.1002/hrdq.20070>

Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The Meaning, Antecedents and Outcomes of Employee Engagement: A Narrative Synthesis. *International Journal of Management Reviews*, 19, 31–53. <https://doi.org/10.1111/ijmr.12077>

Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>

Bell, N., Powell, C., & Sykes, P. (2015). Securing the well-being and engagement of construction workers: An initial appraisal of the evidence. In A. Raidén & E. Aboagye-Nimo (Eds.), *Proceedings of the 31st Annual Association of Researchers in Construction Management Conference, ARCOM 2015* (pp. 489–498). Retrieved from [http://irep.ntu.ac.uk/id/eprint/25820/1/221650\\_PubSub3434\\_Raiden.pdf](http://irep.ntu.ac.uk/id/eprint/25820/1/221650_PubSub3434_Raiden.pdf)

Chaurasia, S., & Shukla, A. (2014). Psychological Capital, LMX, Employee Engagement & Work Role Performance. *The Indian Journal of Industrial Relations*, 50(2), 342–356. Retrieved from <https://www.jstor.org/stable/24549128>

Cheng, E. W. L., Li, H., & Fox, P. (2007). Job performance dimensions for improving final project outcomes. *Journal of Construction Engineering and Management*, 133(8), 592–599. [https://doi.org/10.1061/\(ASCE\)0733-9364\(2007\)133:8\(592\)](https://doi.org/10.1061/(ASCE)0733-9364(2007)133:8(592))

Chih, Y. Y., Kiazad, K., Cheng, D., Lajom, J. A. L., & Restubog, S. L. D. (2017). Feeling Positive and Productive: Role of Supervisor-Worker Relationship in Predicting Construction Workers' Performance in the Philippines. *Journal of Construction Engineering and Management*, 143(8), 1–10. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001346](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001346)

Dawkins, S., Martin, A., Scott, J., Sanderson, K., & Schütz, B. (2018). A cross-level model of team-level psychological capital (PsyCap) and individual- and team-level outcomes. *Journal of Management and Organization*, 1–20. <https://doi.org/10.1017/jmo.2018.27>

Farooqui, R. U., Ahmed, S. M., & Lodi, S. H. (2008). Assessment of Pakistani Construction Industry – Current Performance and the Way Forward. *Journal for the Advancement of Performance Information and Value*, 1(1), 51–72.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2), 268–279. <https://doi.org/10.1037/0021-9010.87.2.268>

Hsu, M. L. A., & Chen, F. H. (2017). The Cross-Level Mediating Effect of Psychological Capital on the Organizational Innovation Climate–Employee Innovative Behavior Relationship. *Journal of Creative Behavior*, 51(2), 128–139. <https://doi.org/10.1002/jocb.90>

Kahn, W. A. (1990). PSYCHOLOGICAL CONDITIONS OF PERSONAL ENGAGEMENT AND DISENGAGEMENT AT WORK. *The Academy of Management Journal*, 33(4), 692–724.

Kappagoda, U. W. M. R. S., Othman, H. Z. F., & Alwis, G. De. (2014). Psychological Capital and Job Performance: The Mediating Role of Work Attitudes. *Journal of Human Resource and Sustainability Studies*, 02(02), 102–116. <https://doi.org/10.4236/jhrss.2014.22009>

Khan, S.-R., Sang Long, C., & Muhammad Javed Iqbal, S. (2014). Authentic Leadership: An





- 7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
Emerging Issue in Project Management. *Research Journal of Applied Sciences, Engineering and Technology*, 11(8), 1377–1383. <https://doi.org/10.19026/rjaset.8.1110>
- Leung, M. Y., Chan, Y. S., & Olomolaiye, P. (2008). Impact of stress on the performance of construction project managers. *Journal of Construction Engineering and Management*, 134(8), 644–652. [https://doi.org/10.1061/\(ASCE\)0733-9364\(2008\)134:8\(644\)](https://doi.org/10.1061/(ASCE)0733-9364(2008)134:8(644))
- Luthans, F., Avey, J. B., & Patera, J. L. (2008a). Experimental analysis of a web-based training intervention to develop positive psychological capital. *Academy of Management Learning and Education*, 7(2), 209–221. <https://doi.org/10.5465/AMLE.2008.32712618>
- Luthans, F., & Avolio, B. J. (2009). The “ point ” of positive organizational behavior. *Journal of Organizational Behavior*, 30, 291–307. <https://doi.org/10.1002/job.589>
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007a). Positive Psychological Capital: Measurement and Relationship with Performance and Satisfaction. *Personnel Psychology*, 60, 541–572. <https://doi.org/10.1111/j.1744-6570.2007.00083.x>
- Luthans, F., Avolio, B. J., Walumbwa, F. O., & Li, W. (2005). The Psychological Capital of Chinese Workers: Exploring the Relationship with Performance. *Management and Organization Review*, 1(2), 249–271. Retrieved from <http://www.blackwell-synergy.com/doi/abs/10.1111/j.1740-8784.2005.00011.x>
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008b). The Mediating Role of Psychological Capital in the Supportive Organizational Climate – Employee Performance Relationship. *Journal of Organizational Behavior*, 29(2), 219–238. <https://doi.org/10.1002/job.507>
- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological Capital: An Evidence-Based Positive Approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 339–366. <https://doi.org/10.1146/annurev-orgpsych-032516-113324>
- Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143–160. <https://doi.org/10.1016/j.orgdyn.2004.01.003>
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007b). *Psychological Capital: Developing the Human Competitive Edge*. <https://doi.org/10.1093/acprof:oso/9780195187526.001.0001>
- Macky, K., & Boxall, P. (2008). High-involvement work processes, work intensification and employee well-being: A study of New Zealand worker experiences. *Asia Pacific Journal of Human Resources*, 46(1), 38–55. <https://doi.org/10.1177/1038411107086542.HIWP>
- Malik, A. (2013). Efficacy, Hope, Optimism and Resilience at Workplace – Positive Organizational Behavior. *International Journal of Scientific and Research Publications*, 3(10), 2250–3153. Retrieved from [www.ijsrp.org](http://www.ijsrp.org)
- Mills, M. J., Fleck, C. R., & Kozikowski, A. (2013). Positive psychology at work: A conceptual review, state-of-practice assessment, and a look ahead. *The Journal of Positive Psychology*, 8(2), 153–164. <https://doi.org/10.1080/17439760.2013.776622>
- Mostert, K., Peeters, M., & Rost, I. (2011). Work-home interference and the relationship with job characteristics and well-being: A South African study among employees in the construction industry. *Stress and Health*, 27(3), 238–251. <https://doi.org/10.1002/smi.1374>
- Ofori, G. (1993). Research on construction industry development at the crossroads. *Construction Management and Economics*, 11(3), 175–185. <https://doi.org/10.1080/01446199300000017>
- Ogwueleka, A. C., & Ogbonna, S. N. (2018). Effect of positive organizational behaviour (POB) characteristics on construction employees’ turnover in Uyo City of Akwa Ibom State,



Proceedings

ISSN 2617-8028

- 7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 Nigeria. *African Journal of Science, Technology, Innovation and Development*, 10(2), 159–168. <https://doi.org/10.1080/20421338.2017.1412610>
- Patro, C. sekhar. (2013). The Impact of Employee Engagement on Organization ' s Productivity. *2nd International Conference on Managing Human Resources at the Workplace*. Retrieved from <https://www.sdmimd.ac.in>
- Sarwar, H., Nadeem, K., & Aftab, J. (2017). The impact of psychological capital on project success mediating role of emotional intelligence in construction organizations of Pakistan. *Journal of Global Entrepreneurship Research*, 7(22). <https://doi.org/10.1186/s40497-017-0080-4>
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701–716. <https://doi.org/10.1177/0013164405282471>
- Schaufeli, W., & Bakker, A. (2004). *UWES Utrecht Work Engagement Scale Preliminary Manual*. Retrieved from [https://www.wilmarschaufeli.nl/publications/Schaufeli/TestManuals/Test\\_manual\\_UWES\\_English.pdf](https://www.wilmarschaufeli.nl/publications/Schaufeli/TestManuals/Test_manual_UWES_English.pdf)
- ŞEN, C., & BASIM, H. N. (2018). the Impact of Psychological Capital on Job Performance and Cynicism: the Moderator Effect of Cultural Tightness-Looseness. *Social Sciences Studies Journal*, 4(19), 2402–2423. <https://doi.org/10.26449/sssj.648>
- Simons, J. C., & Buitendach, J. H. (2013). Psychological capital, work engagement and organisational commitment amongst call centre employees in South Africa. *SA Journal of Industrial Psychology*, 39(2 SPL), 1–12. <https://doi.org/10.4102/sajip.v39i2.1071>
- Toor, S.-R., & Ofori, G. (2008). Leadership for future construction industry: Agenda for authentic leadership. *International Journal of Project Management*, 26, 620–630. <https://doi.org/10.1016/j.ijproman.2007.09.010>
- Toor, S. U. R., & Ofori, G. (2010). Positive Psychological Capital as a Source of Sustainable Competitive Advantage for Organizations. *Journal of Construction Engineering and Management*, 136(3), 341–352. [https://doi.org/10.1061/\(ASCE\)1090-0268\(2010\)136:3\(341\)](https://doi.org/10.1061/(ASCE)1090-0268(2010)136:3(341))
- Truss, C., Shantz, A., Soane, E., Alfes, K., & Delbridge, R. (2013). Employee engagement, organisational performance and individual well-being: Exploring the evidence, developing the theory. *International Journal of Human Resource Management*, 24(14), 2657–2669. <https://doi.org/10.1080/09585192.2013.798921>
- Unterhitzenberger, C., & Bryde, D. J. (2019). Organizational Justice, Project Performance, and the Mediating Effects of Key Success Factors. *Project Management Journal*, 50(1), 57–70. <https://doi.org/10.1177/8756972818808984>
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34(1), 89–126. <https://doi.org/10.1177/0149206307308913>
- Zubair, A., & Kamal, A. (2017). Perceived authentic leadership, psychological capital, and creative work behavior in bank employees. *Pakistan Journal of Psychological Research*, 32(1), 35–53.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

**DETERMINING AN IMPACT OF SOCIETAL NORMS ON INTENTION TO USE  
TECHNOLOGICAL INNOVATIONS IN SMARTPHONE APPLICATIONS**

Sahar Latif Rana

UE Business School, Division of Management and Administrative sciences, University of Education, Lahore, Pakistan

Huma Fatima

UE Business School, Division of Management and Administrative sciences, University of Education, Lahore, Pakistan

Abida Hafeez

Department of Economics, Division of Management and Administrative sciences, University of Education, Lahore, Pakistan.

**ABSTRACT**

Smartphones facilitate the potential adoption of new mobile applications. The purpose of this research was to determine the impact of social norms on antecedents of intention and to identify the means which drives the use of smart phone applications across its users. For research purpose three selected applications were used. The usage of smartphone applications was measured by using questionnaire. Purposive sampling technique and convenience sampling techniques were used for data collection purpose. Total 150 questionnaires were distributed and the response rate was 89%. SPSS 22 was used for data analysis. Findings reveal that social norms has a positive effect on perceived enjoyment and perceived usefulness whereas perceived usefulness has insignificant relationship with intention to use.. On the other hand, perceived enjoyment and perceived usefulness has a positive and significant effect on intention to use advanced mobile services. Regarding perceived usefulness, study reveals that further research is directed in exploring its impact more thoroughly. The dataset of the research, young smartphone owners and limited sample size make the generalization of results difficult. Differences exist regarding usage of smartphone applications. In this study games are considered hedonic application, whereas mobile internet and map application, are driven by utilitarian motive. It is clear that not everybody is using applications for enjoyment purposes, rather they are also availing their benefits at office and work areas. Hence, presented approach of studying user of smartphone applications provides a new approach to analyze its adoption at practical level

**Key Words:** Social norms, intention to use, perceived usefulness, intention to use, smart phone, and technology



## 1. Introduction

Mobile mania is diffusing worldwide and usage of its basic services and applications like mobile telephony and SMS has crossed approximately 4 billion subscribers (Liu et al., 2021). About 61 % of the world population, most of the users are using pre-paid subscriptions. (Netsize Guide, 2008; ITU, 2009). Consumers are spending more time on the usage of apps than ever before.

Over the past half-decade, the propagation of mobile devices has transmuted us into an app-driven society, presenting marketers with new opportunities to connect with consumers by creating more interesting and refined apps to grasp their attention (Zimmermann, 2021). Before the advent of smartphone, the most popular services among mobile users were SMS, downloading ring tones and changing icon styles. With the passage of time and development of smartphones, it has been observed that it is the user who controls the applications not the mobile operator. Now, users can install and use the applications depending upon their own needs and interest. The purpose of this paper is to determine the usage of mobile services (internet, games and maps) by smartphone owners. The owners can be depicted as early adopters of next generation devices, that uses advanced services and their behavior in adopting such services is of utmost importance from conceptual and practical point of view. According to statistics the number of smartphone users is forecasted to reach 4.78 billion by 2020 (Hsieh et al., 2020), Data set reveals that there were 1.41 billion smartphone devices sold in 2018 (Statista, 2019). Therefore, telecom device market of Pakistan is progressing due to huge contribution of smartphone segments. Although financial crisis is at apex in Pakistan but when it comes to technology Pakistan has shown huge demand. Pakistan's major population comprises of youth which are embracing connected devices. The young people want to stay connected 24/7 with their young ones and this can be done through usage of smartphone applications like Facebook, WhatsApp, Viber and Twitter. Beside that staying connected is not enough, playing online games, downloading files, and watching videos is just as important as using phone for calls and messaging. Appetite for newer technology and its awareness has turned smartphones as the go- to devices for people. Intention to use smartphone applications depends upon behavior of individuals in a group or in society. The ways an individual respond in a society are known as social norms.

### 1.1 Research Question:

What impact do social norms have on antecedents of intention and what drives the intentions to use smartphone applications (internet, games and maps) across its users?



## 2. Literature Review

Several models exist to examine the differences in adoption of advanced mobile services by its users. For this purpose, various intention-based models embedded in cognitive psychology are used in information system acceptance research. These models include Technology Acceptance Model (TAM) by Davis (1989), Theory of Planned Behavior by Ajzen (1991) and theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975). In 1980 TPB theory planned behavior started as theory of reasoned action (TRA), which aids to determine individuals intention to engage in a particular activity at a specific place or time. Behavioral intent is a key rudiment of this model; behavioral intentions are influenced by the attitude about the likelihood that the behavior will have the expected outcome and the subjective evaluation of the risks and benefits of that outcome. Specifically, TRA (Fishbein and Ajzen, 1975) state that people's actual behavior can be depicted by their intention to behave in certain style, whereas their behavior is influenced by two important factors: their own attitude and social influences. TPB (Ajzen, 1991) is an extended model of TRA, which determines internal and external restrains (e.g. experience with the service, self -efficacy in using technology, or people's economic situation) on people's behavior (Nysveen et al., 2005b). On the other hand, TAM (Davis, 1989) determines people's intentions to use technology. People's intentions to use technology depends upon their usefulness (defined as the degree to they believe that using a particular system would enhance their job performance), and ease of use (defined as the degree to which they believe that using a particular system would be free of effort).

### 2.1 Social Norms

Social Norms are also known as subjective norms, are customary rules that determine individual behavior in a group or society (Kryston & Fitzgerald, 2021). These are the rules or mores acceptable in a group or society. Social norms can be operationalized in different ways. At a gritty level, social norms are considered to be behavioral regularities and network attributes. Meaningful social norms can be generated through consistent behavior resulting in persistent interactions between individuals in a social group (Gleave, 2009).

Social norms have been extensively studied in social sciences. Certain elements have influence on individual's behavior; most important among them is the presence of others which seems to set up expectations. In social sciences, the norms are of utmost importance, as they guide behavior in a certain situation as "mental representation of appropriate behavior". As mental representatives of mental behavior, social norms are assumed to have direct impact on perceived usefulness (Kervenoael et al., 2020). In TAM social norms are considered to be of utmost relevance. Social norms, in the context of this paper is defined as "the degree to which individuals have the impression that important others believe they should (be able to) use a new system, in our case the advanced mobile services". This definition infers that others opinion have influence on people's behavior. As the direct link between subjective norms, and intention has been quite insignificant, so it has demonstrated that social norms



7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 have an indirect impact on people’s intention to adopt (Bhattacharjee, 2000). In terms of usefulness, person’s evaluation of advanced wireless internet is affected by social influences (Lu, Yao, and Yu, 2005). Beside that social norm are also associated with perceived enjoyment. Perceived enjoyment is an intrinsic motivation or personal satisfaction derived from specific actions. Perceived enjoyment can be explained “as a degree to which performing activity is perceived as providing pleasure and joy in its own right, aside from performance consequences” (Naradipa, 2020). Therefore a person who has an ability use a new technology has perceived enjoyment associated with it. Based on above discussion following hypothesis are proposed

*H1: Social Norms have a positive effect on perceived enjoyment.*

*H2: Social Norms have a positive effect on perceived usefulness.*

## **2.2. Determinants of people’s intention to use advanced mobile services via smartphones**

In this section, key determinants which enhance people’s intention to use advanced mobile services via smartphones are discussed. These determinants are perceived enjoyment and perceived usefulness in relation to behavioral intention.

## **2.3 Perceived Enjoyment**

Perceived enjoyment is the degree to which any activity of using a specific system by an individual is considered to be enjoyable, in spite of its outcomes resulting from use of system (Naradipa, 2020). Further stated by Davis et al. (1992) that at workplace intended use of new technologies have a significant impact on perceived enjoyment. Literature on mobile services depicts an existence of an evidence with particular reference to impact of perceived enjoyment on the acceptance of advanced mobile services by users of smartphones. Basically, there are four types of mobile services mostly used by consumer’s i.e (SMS, gaming, payment and contact). Based on their analysis Nysveen et al. (2005b) found that in all these four cases motivational influence of perceived enjoyment has a significant effect on people’s intention to use mobile services. Hong et al. (2006b) opined that in the areas of entertainment, information and communication, perceived enjoyment is a significant predictor of intended adoption of mobile data services. Perceived enjoyment is considered to be a strong determinant of intended use of mobile phone services for hedonic purposes. For example, for female user’s enjoyment has a significant impact on people’s intention to use those services than for men (Nysveen et al., 2005a)

Perceived playfulness is a concept related to perceived enjoyment. Some literature demonstrate that advanced mobile services are adopted by users for the sake of perceived playfulness. Like, Cheong and Park (2005) stated that people’s intention to use mobile internet is predicted by perceived playfulness, whereas Fang et al. (2006) opined that playfulness is helpful when it comes to the adoption of mobile games, rather than usage of



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 mobile internet services. Contrary to above arguments, some studies are of the view that perceived enjoyment has no impact on the acceptance of advanced mobile services. For example, Shin (2007) reported that no significant impact exists on the usage of mobile internet, while Ha et al. (2007) in same year reported that positive influence exists on the people's attitude towards the usage of mobile games. Hong and Tam (2006), stated that smartphones and mobile services are not only means for achieving utilitarian goals. Meso et al., (2005), determined that Technologies like smartphone, which are pervasive can also be used for business or social purposes as well. Kim et al, (2007) found that Perceived enjoyment adds to the hedonic value of advanced mobile services, having a positive effect on the intended adoption. Hong and Tam (2006) concluded that perceived enjoyment has a significant impact on people's intention to use entertainment and information mobile data services.

*H3: Perceived Enjoyment has a positive effect on the intention to use advanced mobile services.*

#### **2.4 Perceived usefulness**

TAM outlines that in both mandatory and voluntary contexts people's intention to use a new technology is increased by perceived usefulness (Venkatesh et al., 2003). Perceived usefulness is considered to be a key factor in determining the intention to use advanced mobile services: mobile data services (Hong et al., 2006b), mobile Internet (Cheong and Parrk, 2005; Lu et al., 2005), mobile health care systems (Wu et al., 2007), mobile commerce (Wu and Wang., 2005), and mobile banking (Luarn and Lin, 2005)

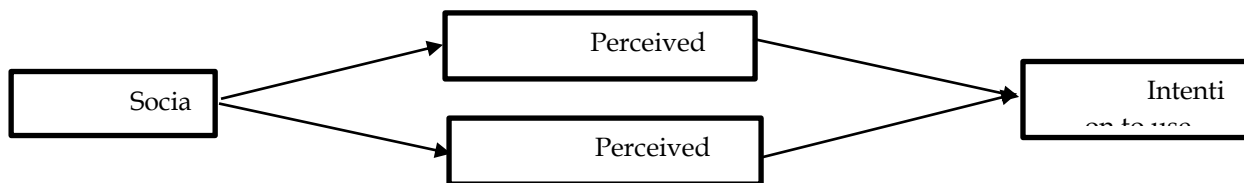
An in-depth review of literature depicts those inconsistencies exist while determining the impact of perceived usefulness on their intention to use a new system. The relationship between perceived usefulness and intention to use new technology is significant in some studies while insignificant in other studies (Sun and Zhang, 2006). Owing to the emerging nature of research in the area of acceptance of advanced mobile services, this type of inconsistency becomes of utmost importance. As in case of mobile games adoption, Ha et al. (2007) found the existence of insignificant relationship between perceived usefulness and intention to use, whereas Pederson (2005) depicted direct effect of Perceived usefulness and on intention to use mobile internet. On the other hand, Meso et al. (2005) concluded that perceived usefulness has no influence on the mobile technologies usage either for business or social purposes. In the study of mobile chat services, Perceived usefulness is considered to be a key determinant of the intention to use such services in a sample of males, while insignificant relationship is determined for females.

*H4: Perceived usefulness has positive effect on the intention to use advanced mobile services.*



## 2.5 Theoretical Framework:

Based on the discussion of literature, following framework is designed for this paper



The conceptual framework encompasses the TPB and TRA in it. Social norms, Perceived enjoyment and Perceived usefulness are key elements of TRA whereas intention is a rudiment of TPB. The schematic diagram depicts the impact of social norms on perceived usefulness and perceived enjoyment. On the other hand it can be determined that how intention to use specific mobile services are influenced by perceived enjoyment and perceived usefulness.

## 3. Methodology

### 3.1 Population, sample size and sampling technique:

This study determines the impact of social norms on antecedents of intention and to determine what impact does these antecedents have on intention to use mobile phone services. Actually, this study is related to usage of smartphone applications, so the target population was smartphone owners. Sample size of 150 owners has been selected for data collection purpose. Purposive sampling technique was used as smartphone was selected for empirical testing and target population was youth. Convenience sampling techniques was used for the sake of data collection and questionnaires were distributed in different institutes. Survey technique has been used as a source of data collection for many times in management sciences. As this study is basically a primary research, the sample approach was followed.

### 3.2 Data analysis

After data compilation, SPSS 22 was used for data analysis.

### 3.3 Response Rate

Out of total sample size of 150 smartphone owners, 133 responded back. Hence the response rate was 89%. Among them 76% were male and 23% were females. The overall response rate was 89 % which was good representative for sample.

### 3.4 Description of instrument

For data collection purpose already developed questionnaire by (Verkasalo, 2005, 2009) was used. Questions were mostly related to wide range of new mobile services. This study focused on Internet use, games and the use of maps. Various constructs that were early tested in TAM have been used in survey. In particular, social norms, perceived usefulness,



7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 perceived enjoyment and intention to use are included in the survey and related specifically to each of the key services Intention to use is reflected by asking two questions, hence measuring both long term and short term intention to use. Five point Likert scale was used, where 1= strongly disagree, 2= Disagree, 3= can't decide, 4= Agree, 5= Strongly Agree.

#### 4. Research Findings

For this study findings are calculated by using

1. Frequencies
2. Descriptive Statistic technique
3. Linear Regression and correlation
4. Preacher and Hayes (for mediation)

#### 4.1 Frequency tables

Frequency distribution and percentages by SPSS depicts following results about age, gender and work. The results show that 76% were male who uses smartphone application on constant basis (internet, games and maps) whereas females are less directed toward their usage.

**Table 1: Gender frequency:**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	102	76.7	76.7	76.7
Female	31	23.3	23.3	100.0
Total	133	100.0	100.0	

Male aging between 20-30 years (80%) are using smartphones, hence it can be depicted that youth is more oriented toward usage of smartphone applications

**Table 2: Age Frequency**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <20	6	4.5	4.5	4.5
20-30	106	79.7	79.7	84.2
30-40	21	15.8	15.8	100.0
Total	133	100.0	100.0	

These males are mostly work oriented 70% they not only use these applications for their enjoyment purposes but also at their work places also.

**Table 3: Work Frequency**

	Frequency	Percent	Valid Percent	Cumulative Percent
House wife	2	1.5	1.5	1.5
Student	32	24.1	24.1	25.6
working	94	70.7	70.7	96.2
unemployed	5	3.8	3.8	100.0
Total	133	100.0	100.0	

#### 4.2 Descriptive Statistics and Analysis

To analyze the responses descriptive statistics was used in which the mean and standard deviation of independent versus dependent variable was obtained. The findings are shown in the table below.

**Table 4: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
PERENJOYMENT	133	1.67	5.00	3.8672	.69503
PERUSEFULNESS	133	1.00	5.00	3.9900	.77951
SOCIALNORMS	133	1.00	5.00	3.6241	.88849
INTENTION	133	1.00	5.00	3.6241	.88849
Valid N (listwise)	133				

The descriptive analysis predicts the association between variables, social norms, intention, perceived enjoyment and perceived usefulness lies at 4 which means that smartphone owners use smartphone applications (internet, games and maps) not only for enjoyment purposes but those services also aid them in their work and studies as well. Peer pressures also play a pivotal role in adoption of such services by smartphone owners.

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022  
 According to them, they just use those services, because their friends do so. Hence, it seems that their intention to use such services is has been prolonged not only for two or three months, but for next ten years.

**4.3 Regression Analysis and Correlation**

In regression analysis, relationship between dependent and independent variable is calculated. Details are discussed as below:

**4.3.1 Social norms and Perceived Enjoyment:** To determine the impact of social norms on Perceived enjoyment, correlation and linear regression is used, results are discussed below:

**Table 5: Correlation: social norm and perceived enjoyment**

		PERENJOYMENT	SOCIALNORMS
PERENJOYMENT	Pearson Correlation	1	.099
	Sig. (2-tailed)		.255
	N	133	133
SOCIALNORMS	Pearson Correlation	.099	1
	Sig. (2-tailed)	.255	
	N	133	133

The correlation between social norm and perceived enjoyment is not significant and 0.099 value shows the existence of weak correlation between perceived enjoyment and social norms.

**Table 6: Regression: Social Norms and Perceived enjoyment:**

Model	R	R square	B	P	F
1	0.099	0.010	0.099	0.000	1.306

R value 0.099 from table, shows that there is negligible relationship between social norms and perceived enjoyment. Ibrahim et al (2006) say that “R values show the strength of relation that whether it is strong, moderate, weak or negligible”. Their analysis is given in the table given below:



Absolute value of R	Degree of association
0.8-1.0	Strong
0.5-0.8	Moderate
0.2-0.5	Weak
0.0-0.2	Negligible

(Ibrahim & Mikhail, 2006) R Value is equivalent to B coefficients of dependent and independent variable, so the value 0.099 show existence of negligible relationship between independent variable (social norms) and dependent variable (perceived enjoyment). R square value is a percentage change in dependent variable due to independent variable. Hence, it determines the existence of direct effect on perceived enjoyment. The findings suggest that 1% change in perceived enjoyment is due to social norms. So, there is a negligible dependency of perceived enjoyment on social norms. Significance test is reported by P-value, which in this case is 0.000, less than 0.1, so null hypothesis is rejected. Ultimately, H1 is proved that social norms have a positive effect on perceived enjoyment.

**4.3.2 Social Norms and Perceived usefulness:** The results of the relationship between social norms and perceived usefulness is discussed hereunder:

**Table 7: Correlation: Social Norms and Perceived Usefulness**

		SOCIALNORMS	PERUSEFULNESS
SOCIALNORMS	Pearson Correlation	1	.409**
	Sig. (2-tailed)		.000
	N	133	133
PERUSEFULNESS	Pearson Correlation	.409**	1
	Sig. (2-tailed)	.000	
	N	133	133

\*\* . Correlation is significant at the 0.01 level (2-tailed).



The correlation between social norm and perceived usefulness is quite significant and 0.409 value shows the existence of weak correlation between perceived usefulness and social norms.

**Table 8: Regression: Social Norms and Perceived Usefulness**

Model	R	R square	B	P	F
2	0.409	0.168	0.409	0.000	26.384

R Value is equivalent to B coefficients of dependent and independent variable, so the value 0.409 show existence of weak relationship between independent variable (social norms) and dependent variable (perceived usefulness). R square value is a percentage change in dependent variable due to independent variable. Hence, it determines the existence of direct effect on perceived usefulness. The findings suggest that 16.8% change in perceived usefulness is due to social norms. So, there is a weak dependency of perceived enjoyment on social norms. Significance test is reported by P- value, which in this case is 0.000, less than 0.1, so null hypothesis is rejected. Ultimately, H2 is proved that social norms have a positive effect on perceived usefulness.

### 4.3.3 Perceived enjoyment and intention to use

**Table 9: Correlation Perceived Enjoyment and intention to use**

		PERENJOYMENT	INTENTION
PERENJOYMENT	Pearson Correlation	1	.254**
	Sig. (2-tailed)		.003
	N	133	133
INTENTION	Pearson Correlation	.254**	1
	Sig. (2-tailed)	.003	
	N	133	133

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The correlation between perceived enjoyment and intention to use is quite significant and 0.254 value shows the existence of weak correlation between perceived enjoyment and intention to use.

**Table 10: Regression: Perceived Enjoyment and intention to use:**

Model	R	R square	B	P	F
3	0.254	0.064	0.325	0.003	9.023

R Value is equivalent to B coefficients of dependent and independent variable, so the value 0.254 show existence of weak relationship between independent variable (perceived enjoyment) and dependent variable (intention to use). R square value is a percentage change in dependent variable due to independent variable. Hence, it determines the existence of direct effect on intention to use. The findings suggest that 6.4% change in intention to use is due to perceived enjoyment. So, there is a weak dependency of intention to use on perceived enjoyment. Significance test is reported by P- value, which in this case is 0.003, less than 0.1, so null hypothesis is rejected. Ultimately, H3 is proved that perceived enjoyment has positive effect on intention to use.

**Perceived Usefulness and Intention to use:** Findings are discussed below:

**Table 11: Correlation: Perceived Usefulness and Intention to Use:**

		INTENTION	PERUSEFULNESS
INTENTION	Pearson Correlation	1	.153
	Sig. (2-tailed)		.078
	N	133	133
PERUSEFULNESS	Pearson Correlation	.153	1
	Sig. (2-tailed)	.078	
	N	133	133

The correlation between perceived usefulness and intention to use is not significant and 0.153 value shows the existence of negligible correlation between perceived usefulness and intention to use.



**Table 12: Perceived Usefulness and Intention to Use:**

<b>Model</b>	<b>R</b>	<b>R square</b>	<b>B</b>	<b>P</b>	<b>F</b>
4	0.153	0.023	0.153	0.078	3.145

R Value is equivalent to B coefficients of dependent and independent variable, so the value 0.153 show existence of negligible relationship between independent variable (perceived usefulness) and dependent variable (intention to use). R square value is a percentage change in dependent variable due to independent variable. Hence, it determines the existence of direct effect on intention to use. The findings suggest that 2.3% change in intention to use is due to perceived usefulness. So, there is a weak dependency of intention to use on perceived usefulness. Significance test is reported by P- value, which in this case is 0.0078, less than 0.1, so null hypothesis is rejected. Ultimately, H4 is proved that perceived usefulness has positive effect on intention to use.

<b>Hypothesis</b>	<b>Description</b>	<b>Accepted/Rejected</b>
<b>H1</b>	Social norm have a positive effect on perceived enjoyment	<b>Accepted</b>
<b>H2</b>	Social norms have a positive effect on perceived usefulness	<b>Accepted</b>
<b>H3</b>	Perceived enjoyment has a positive effect on intention to use advanced mobile service	<b>Accepted</b>
<b>H4</b>	Perceived usefulness has positive effect on intention to use advance mobile services	<b>Accepted</b>

## Conclusion

Using a smartphone requires a certain level of skill on the part of the user to access relevant services either for hedonic services, like games, or services that are more utilitarian, like Internet access and maps. As discussed earlier, the aim of this study is to determine the impact of social norms on antecedents of intention and furthermore to identify the impact of these antecedents (perceived enjoyment and perceived usefulness) on intention to use advance mobile services. A typology of independent variable consisting social norms for perceived enjoyment and perceived usefulness was utilized, furthermore perceived enjoyment



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022 and perceived usefulness were considered as independent variables and their impact on intention to use advanced mobile services was determined. This study is the value addition to the existing literature as it identifies the factors enabling the use or non-use of mobile services (internet, games and maps). People use smartphone but they don't have particular motives behind its usage. Some use these services for enjoyment purposes while other use for their work or study. So to identify this gap, data was collected from 150 owners of smartphones.

**Table 1-3** show frequency distribution of gender, age and work. Results depict that 86 % smartphone users are young people of age 20-30years, and smartphone users are dominated by 86% males.

The data in **Table 4** shows the mean score of all variables, which states that smartphone owners use mobile services for fun and they believe that besides using such services for enjoyment purposes, they will also be fruitful for them at their working and university level. According to them usage of such services is not a wastage of time, rather it bring enjoyment and saves their time. Decisions of smart phone owners are also affected by their peers, subordinates, group members, or by those persons to whom they give more importance. Moreover, they are committed to use those services for a longer period of time.

**Table 5- Table 6** are built on the correlation and regression results indicating positive and insignificant relationship between social norms and perceived enjoyment, whereas **table 7-8** reveals existence of positive and significant relationship between social norms and perceived usefulness.

**Table 9- Table 10:** are also built on regression analysis, but in this analysis perceived enjoyment act as an independent variables and intention to use advance mobile services act as dependent variable. The findings reveal that positive and significant relationship exists between perceived enjoyment and intention to use. **Table 11- Table 12** results reveal existence of positive and insignificant relationship between perceived usefulness and intention to use mobile services. Sun and Zhang (2006) argue that causality between core concepts of TAM is controversial and highly debatable.

### Limitations

This study is limited to three core services.

1. For accessing web-based content smartphone users are using web browsers through internet access, which is becoming a standard application of every smartphone.
2. Mapping services or using maps consist of applications related to navigation, positioning or simple map.
3. Gaming consists of everything from simple snake to subway surfer java based games.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Beside it, there are number of limitations to this study related to cultural setting of the research. This study is conducted in Pakistan as despite of financial crisis telecom market is progressing in Pakistan, so this field is need to be researched. The main shortcoming of this study is limited number of sample size, which limits the generalizability of this study. Future research is needed to be done with regard to perceived usefulness in exploring its impact more thoroughly. Furthermore, it can be used to distinguish between users and non-users of smartphone application.

### **Practical Implications**

Differences exist regarding usage of smartphone applications. In this study games are considered hedonic application, whereas mobile internet and map application are driven by utilitarian motive. It is clear that not everybody is using applications for enjoyment purposes; rather they are also availing their benefits at office and work areas. Hence, presented approach of studying user of smartphone applications provides a new approach to analyze its adoption at practical level.

### **References**

- Ajzen, (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 50 (2), 179–211.
- Bhattacharjee, A., (2000). Acceptance of E-Commerce Services: The Case of Electronic Brokerages. *IEEE Transactions on Systems, Man and Cybernetics* 30 (4), 411–420.
- Cheong, J.H., Park, M.C., (2005). Mobile Internet acceptance in Korea. *Internet Research*, 15 (2), 125–140.
- Davis, F.D., (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*, 13 (3), 319–340.
- Davis, F.D., Bagozzi, R.P., Warshaw, P.R., (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22 (14), 1111–1132.
- Fishbein, M., Ajzen, I., (1975). *Beliefs, attitude, intention and behavior: An introduction to theory and research*. Addison-Wesley, Reading, MA.
- Fang, X., Chan, S., Brzezinski, J., Xu, S., (2006). Moderating effects of task type on wireless technology acceptance. *Journal of Management Information Systems*, 22 (3), 123–157.





Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Gleave, E., H. T. Welser, et al. (2009). *A conceptual and operational definition of social role'in online community*. System Sciences, 2009. HICSS'09. 42nd Hawaii International Conference on, IEEE.

Ha, I., Yoon, Y., Choi, M., (2007). Determinants of adoption of mobile games under mobile broadband wireless access environment. *Information & Management*, 44, 276–286.

Hong, S.H., Tam, K., Kim, J., (2006). Mobile data service fuels the desire for uniqueness. *Communications of the ACM*, 49 (9), 89–95.

Hong, S.H., Tam, K., (2006). Understanding the adoption of multipurpose information appliances: The case of mobile data services. *Information Systems Research*, 17 (2), 162–179.

Hsieh, H.-F., Hsu, H.-T., Lin, P.-C., Yang, Y.-J., Huang, Y.-T., Ko, C.-H., & Wang, H.-H. (2020). The effect of age, gender, and job on skin conductance response among smartphone users who are prohibited from using their smartphone. *International Journal of Environmental Research and Public Health*, 17(7), 2313.

ITU, (2009). *Measuring the information society*. ITU, *The ICT Development Index*. Geneva.

Ibrahim, A., & Mikhail, N. (2006). Introduction to regression analysis. *Ankara Cancer Epidemiology Course*, 1-14.

Kim, H., Chuan, H., Gupta, S., (2007). Value-based adoption of mobile internet: An empirical investigation. *Decision Support Systems*, 43, 111–126.

Kervenoael, R., Schwob, A., Hasan, R., & Ting, Y. S. (2020). Consumers' perceived value of healthier eating: A SEM analysis of the internalisation of dietary norms considering perceived usefulness, subjective norms, and intrinsic motivations in Singapore. *Journal of Consumer Behaviour*.

Kryston, K., & Fitzgerald, K. (2021). Inspired to adopt: The role of social norms in media inspiration. *Media and Communication*, 9(2), 215–225.

Liu, Y. S., Hankey, J., Lou, N. M., Chokka, P., & Harley, J. M. (2021). Usability and Emotions of Mental Health Assessment Tools: Comparing Mobile App and Paper-and-Pencil Modalities. *Journal of Technology in Human Services*, 1–19.

Lopez-Nicolas, C., Molina-Castillo, F.J., Bouwman, H., (2008). An assessment of advanced mobile services acceptance: Contributions from tam and diffusion theory models. *Information & Management*, 45 (6), 359–364.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Lu, J., Yao, J., Yu, C., (2005). Personal innovativeness social influences and adoption of wireless Internet services via mobile technology. *Journal of Strategic Information Systems*, 14, 245–268.

Luarn, P., Lin, H., (2005). Toward an understanding of the behavioral intention to use mobile banking. *Computers in Human Behavior*, 21, 873–891.

Meso, P., Musa, P., Mbarika, V., (2005). Towards a model of consumer use of mobile information and communication technology in LDCs: The case of sub-Saharan Africa. *Information Systems Journal*, 15, 119–146.

Naradipa, C. (2020). The Effect of Perceived Ease of Use, Perceived Enjoyment, Perceived Cohesion, Social Norm and Customer Preference to Customer Loyalty Online Game Community First Person Shooter in Surabaya. *KnE Social Sciences*, 117–125.

Netsize. G. (2008), *Netsize Guide\_20131.pdf*. Retrieved from: <http://www.netsize.com/>

Nysveen, H., Pedersen, P., Thorbjornsen, H., (2005a). Explaining intention to use mobile chat services: Moderating effects of gender. *Journal of Consumer Marketing*, 22 (5), 247–256.

Nysveen, H., Pedersen, P., Thorbjornsen, H., (2005b). Intentions to use mobile services: Antecedents and cross-service comparisons. *Journal of the Academy of Marketing Science*, 33 (3), 330–346.

Pedersen, P., (2005). Adoption of mobile internet services: An exploratory study of mobile commerce early adopters. *Journal of Organizational Computing and Electronic Commerce*, 15 (3), 203–222.

Shin, D., (2007). User acceptance of mobile Internet: Implication of TAM for convergence technologies. *Interacting with Computers*, 19 (4), 427–483.

Statista. P. (2019), *The Statistics Portal*. Retrieved from: <http://www.statista.com/>

Sun, H., Zhang, P., (2006). The role of moderating factors in user technology acceptance. *International Journal of Human-Computer Studies*, 64 (2), 53–78.

Verkasalo, H., (2009). Handset-based analysis of mobile service usage. Doctoral Dissertation. Helsinki University of Technology.

Verkasalo, H., (2005). *Handset-based monitoring of mobile customer behaviour. Master's Thesis Series, Networking Laboratory, Department of Electrical and Telecommunications Engineering*, Helsinki University of Technology, Espoo, Finland.

Venkatesh, V., Morris, M.G., Davis, G.B., Davis, F.D., (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27 (3), 425–478.



Proceedings

ISSN 2617-8028

7<sup>th</sup> International Conference on Banking, Insurance & Business Management – CBIBM 2022

Venkatesh, V., Bala, H., (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, 39 (2), 273–315.

Wu, J., Wang, S., Lin, L., (2007). Mobile computing acceptance factors in the healthcare industry: A structural equation model. *International Journal of Medical Informatics*, 76, 66–77.

Wu, J., Wang, S., (2005). What drives mobile commerce? An empirical evaluation of the revised technology acceptance model. *Information & Management*. 42, 719–729.

Zimmermann, L. (2021). Your Screen-Time App is Keeping Track: Consumers are happy to monitor but unlikely to reduce smartphone usage.