

Volume 9 Number 1 January 2021

Online ISSN 2307-7921

Print ISSN 2070-0296

# JINNAH BUSINESS REVIEW

Corporate Governance – Independence in the Board of Directors and The Firm's Financial Performance: Empirical Analysis of Cement Sector Firms Listed on Pakistan Stock Exchange (PSX)

Online Review and Customer Purchase Intention in Social E-Commerce Context: Role of Trust as a Mediator and Source Credibility as Moderator

Why a Lending Relationship for Small and Medium Enterprises is indispensable for Economic Development of Baluchistan

Moderation by Job Satisfaction on the Relationship between Emotional Intelligence and Workplace Advice Network Coreness

Current Asset Management as the driver of financial efficiency in Textile Industry of Pakistan

Services Quality & Student's Satisfaction Level

Moderation by Emotional Intelligence on Perceived Leadership Effectiveness and Workplace Performance Outcomes

Comparative Analysis of Risk Management Practices of Commercial Banks in Afghanistan



<http://www.jbrc.pk>



ISSN 2070-0296

# JINNAH BUSINESS REVIEW

VOLUME: 9 NUMBER: 1

JANUARY 2021



JINNAH BUSINESS RESEARCH CENTER

ISLAMABAD, PAKISTAN

***Patron-in-Chief***

Mian Amer Mahmood, Patron (C.U.S.T.)

***Editor-in-Chief***

Dr. Sayyed M. Mehdi Raza Naqvi

**ADVISORY BOARD**

***Dr. Raihan Khan***

State University of New York, Oswego, USA

***Dr. Abdul Rehman***

International Islamic University Islamabad

***Dr. Charles Martin***

Wichita State University Wichita, United State of America

***Dr. Zafar Mueen Nasir***

American Univeristy in the Emirates, UAE

***Dr. Biagio Simonetti***

University of Sannio, Italy

***Dr. Tahir Sulaman***

Ostago University, New Zealand

***Dr. Jose M. Merigov***

University of Chile, Santiago, Chile

***Dr. Khurram Shahzad***

Riphah International University, Islamabad, Pakistan

***Dr. Valerie Earnshaw***

Harvard University, UK

***Dr. Arif Khattak***

Bahria University, Islamabad, Pakistan

***Dr. Abdul Karim Khan***

United Arab Emirates University, UAE

***Dr. Kamran Naqi***

Hamdard University, Islamabad, Pakistan

***Dr. Kashif-ur-Rehman***

City Univeristy, Peshawar

***Dr. Syed Muhammad Amir Shah***

Allama Iqbal Open University, Islamabad

***Dr. Saeed Akber***

University of Bradford, UK

***Dr. Attaullah Shah***

Institutes of Managenent Sciences, Peshawar

***Dr. Rehana Kouser***

Bahauddin Zakariya University, Multan

***Dr. Abdul Rasheed***

International Islamic University, Islamabad

***Associate Editor***

Dr. Lakhi Muhammad | Dr. Nousheen Tariq Bhutta | Dr. Samyia Safdar

***Assistant Editor***

Sana Farzand Ali

## Table of Contents

1	Corporate Governance Independence in the Board of Directors and The Firms Financial Performance: Empirical Analysis of Cement Sector Firms Listed on Pakistan Stock Exchange (PSX)	1
2	Online Review and Customer Purchase Intention in Social E-Commerce Context; Role of Trust as a Mediator and Source Credibility as Moderator	25
3	Why a Lending Relationship for Small and Medium Enterprises is indispensable for Economic Development of Baluchistan	37
4	Moderation by Job Satisfaction on the Relationship between Emotional Intelligence and Workplace Advice Network Coreness	59
5	Current Asset Management as the driver of financial efficiency in Textile Industry of Pakistan	68
6	Services Quality & Students Satisfaction Level	85
7	Moderation by Emotional Intelligence on Perceived Leadership Effectiveness and Workplace Performance Outcomes	95
8	Comparative Analysis of Risk Management Practices of Commercial Banks in Afghanistan	110



# Corporate Governance Independence in the Board of Directors and The Firms Financial Performance: Empirical Analysis of Cement Sector Firms Listed on Pakistan Stock Exchange (PSX)

Muhammad Noman Ansari\*<sup>1</sup> & Dr. Sayed Fayaz Ahmed<sup>2</sup>

<sup>1,2</sup>*Institute Of Business Management, Karachi, Pakistan*

---

**Abstract.** The corporate governance measures emphasize on presence of independence of the board of directors to bring objectivity and reducing the agency cost; whereas the institutions have the ability, skills and time to supervise the activities of the management and channelize it to better financial performance. The objective of this study is to explore the effect of independence of the board of directors on the financial performance of the firms. The independence was gauged by number of independent directors and non-executive directors, chairing of board committees by independent directors, institutional holding in the firm, and presence of institutional directors on the board. The financial performance of the firm is gauged using the return on equity (ROE) and return on assets (ROA). The corporate governance and financial performance data comprising of 75 firm years from 2014 to 2018 of the firms listed in the cement sector of the Pakistan Stock Exchange (PSX) were selected. GLM regression was performed to study the relationship between the variables. The results suggest that the majority of independence on the board of directors do not affect the financial performance of the firm; the independence in the board committees negatively affects the financial performance, whereas the presence of institutional holding and director in the firm does not have any effect on the performance of the firm. The study will provide a basis for future studies to find the association that independence can bring objectivity, reduce agency cost, and affect the performance of the firm.

**Key words:** Corporate governance, board of directors, board committees, independent directors, firm performance, return on assets, return on equity, cement sector, Pakistan stock exchange.

---

## 1 Introduction

In corporate entities, ownership and control over the firm are two separate things and this gives rise to the agency problem (Gompers et al., 2003). According to Eisenhardt (1989) the agency problem can be classified into two broad categories, i.e. one category groups the issues related to conflicts in the perspective of the principal, i.e. shareholders and agents (managers/management) and second category groups the issues related to costs and difficulty of

---

\*Corresponding author.

Email: std\_21634@iobm.edu.pk

reviewing the activities of the management by the shareholders. The shareholders and management normally have different attitude toward risk and they both have different set of goals. However, as capital provider, the shareholders require the managers to work for achieving their goals. [Michael et al. \(1976\)](#) in their study explained the rationale that the utility maximization in the nature of managers drives them to use the resources of the firm to achieve their own goals and interests. Shareholders have to devise incentive plans for the managers to entice them to achieve shareholders goals. Shareholders also incur costs for keeping track and limiting activities of the managers that they are performing for their own good. The costs of the incentive plans, monitoring and restricting activities, and the cost of the decisions that favor the managers are termed as the agency costs by [Michael et al. \(1976\)](#).

The presence of agency problem in the firms gives rise to the need of some governance system that lines up the objectives of the shareholders and management and aid the shareholders in monitoring that the powers delegated to the managers are utilized for maximizing the shareholders wealth ([Judge et al., 2003](#)). This system is acknowledged as the corporate governance (CG) ([Gompers et al., 2003](#)). Therefore, we can articulate that CG are the procedures used to cope with the agency cost ([Shaukat and Padgett, 2005](#)). Corporate governance (CG) is the mechanism through which the numerous small and dispersed shareholders can eye the activities of the managers and circumscribe them to work for the wealth maximization of the shareholder ([Hart, 1995](#)). According to the International Finance Corporation (IFC), a World Bank Group entity, CG is defined as the structures and processes by which companies are directed and controlled. Here the companies mean the corporate entities. IFC further explains that the CG aids in building facilitative environment in the firms, which augments operational efficiencies, better access to capital markets, fosters risk mitigation and refrains from mismanagement.

Under the CG mechanism, oversight of the management is performed by the board of directors (The Board) ([Gompers et al., 2003](#)). The directors on the board are elected by the shareholders and the board has the authority to monitor the activities of managers, to act as the approving authority for major decision by the managers, and to appoint or remove chief executive officer (CEO) and any senior management position ([Hart, 1995](#)). Along with these authorities, the board is also responsible for appraising the performance of the CEO ([Judge et al., 2003](#)). From the literature, it is evident that the CG measures are found at macro and micro levels, i.e. CG measures at country-level and at firm-level ([Hillier et al., 2011](#)). Country-level CG measures are imposed by the government or the regulatory authority of the country. Firm-level CG measures are voluntarily adopted by the firm. Country and firm level measures include: firm does not have dual-share-structure; shareholders have cumulative voting rights; there is no requirement of super-majority for amending the bylaws charters or approving mergers; BOD is not classified or staggered; shareholders have right to call special meetings and can act by written consent; BOD has majority of independent directors; audit, compensating, and nominating committees are independent; no duality CEO and Chairperson; single person is not CEO on more than one firm; existence of governance committee and no interlocking directorate ([Chhaochharia and Laeven, 2009](#)).

Firms in Pakistan are regulated by the government of Pakistan (the government) through a regulatory body known as Securities Exchange Commission of Pakistan (SECP) established under the securities and commission of Pakistan act, 1997 (What we do? — SECP). SECP has been given a mandate to regulate the capital markets, to supervise and control the corporate firms and the incidental matters (The Securities and Exchange Commission of Pakistan Act, 1997). The government in 2017 reformed former corporate law, i.e. the Companies Ordinance 1984 and promulgated the Companies Act, 2017 (The act). The act provides SECP with the



framework of regulations for the all types corporate firms, including but not limited to public listed firms. The intention behind the act is to expedite and foster corporatization, embolden the digitalization in regulating the firms and in conducting business by the firms, and to regulate the firms in a manner that protects the interests of the stakeholders including shareholders, creditors, the general public, and minority shareholders (The Companies Act, 2017).

The SECP in order to regulate the corporate firms, which are listed over the stock exchanges of Pakistan, issued the first governance rules in 2002 known as the code of the corporate governance (CCG). CCG was introduced to bring reforms only in the publicly listed firms, because these firms have large shareholders base as well as stakeholders. The aim behind the introduction of CCG is to institute international best practices among the firms of Pakistan (Javid and Iqbal, 2010). SECP is continuously thriving for safeguarding the interests of the shareholders and keeping the firms parallel to the world best practices, therefore revising the CCG. It has first revised in 2012 and then in 2017.

It is evident from the literature that the CG measures, like presence of independent directors on the board, are implemented to minimize the agency conflicts, which resulted in reduction in agency costs and inducing managers to maximizes shareholders wealth (Al-Najjar and Clark, 2017). Therefore, it be postulated that the CG measures, like independence of directors, size and composition of the BOD, separation of CEO and chairmanship, independence of BOD sub-committees for governance and control, ownership structures, etc. act as catalyst that mitigates the detrimental practices of the managers and resulted in firms better financial performance (?). Further, CG measures are also associated with the market value of the firms as well (?). As Pakistan is in continues process of developing the CG laws, regulations and rules, both at the firm-level and country-level, as discussed above, therefore, to find out that these CG measures and introduction of independence over the BOD in Pakistan are aiding the corporate firms in improving financial performance and catching better value in capital markets or these measures are acting as hindrances in the ease of doing business for the corporate sector, more specifically, the firm listed in the cement sector over Pakistan Stock Exchange (PSX). The study is conducted with objectives to gauge the impact of board composition/independence over the financial performance of the firms, to gauge the impact of independence of boards sub-committees over the financial performance of the firms, to gauge the impact of the independence of the chairperson of the BOD over the financial performance of the firms and to gauge the impact of the institutional holding over the financial performance of the firms listed in the cement sector over the PSX. The research provides answers related to questions such as: does the board composition/independence have impact over the financial performance of the firm; does the independence of boards sub-committees have impact over the financial performance of the firm; does the independence of the chairperson of the BOD have impact over the financial performance of the firm; and does the institutional holding have impact over the financial performance of the firm. The study contributes in the current stream of literature in two ways. Since Pakistani corporate firms have concentrated ownership structures, i.e. few individuals or a family have majority of shares, which results in agency problems for non-controlling shareholders and the CCGs focuses on the BOD (Sheikh et al., 2018) require firms to have independent directors on board to represent the non-controlling shareholders. Therefore, the study contributes towards the literature in a manner that how the presence of majority independent directors on the BOD, representing the non-controlling shareholders, contribute in the financial performance of the firm. Institutional investors have the experience, expertise and sometimes power to influence the decision making by the BOD and they generally invest in firms that have better CG practices (Al-Sartawi and Sanad, 2019). Therefore, second contribution towards the CG literature is

how the presence of the institutional shareholding in the firm contribute towards the financial performance of the firm.

## 2 Literature Review

During 1970s, America was the place where the word Corporate Governance was first surfaced and used, while framing corporate scandals of that period, by Securities and Exchange Commission (SEC) (Ocasio and Joseph, 2005). Various corporate scandals and failures raised the need for effective corporate governance systems (Dash et al., 2008). It not only caters to the rights of the shareholders rather it caters the rights of the stakeholder like creditors, debtors, suppliers, customers, employees and also sets out roles and responsibilities for the shareholder, BOD and management (Cheema and Din, 2013). CG does not focus on returns of the firms but on better business practices and utilization of firms resources in optimal manner that eventually transformed in better results (Naveed et al., 2011). Investors prefer to invest in firms and countries with good CG practices, as CG enhances confidence over the future earnings ability, growth and firms value (Haque and Arun, 2016). Thus, CG means assurance to the providers of the finance that their finances will be utilized in the most appropriate manner by the managers resulting in enhanced firm value, which means the basic premise of the CG is to deal with agency problem (Shleifer and Vishny, 1997).

The governance of the firms is responsibility of the BOD and the management is accountable to them; governance is not the responsibility of the shareholder, their role to is satisfy themselves through the appointment of directors and auditors that apposite structure of CG is in position; now it is the responsibility of the BOD to set strategic goals, lead management towards these goals and supervise them for any mismanagement and provide report to the shareholder about the stewardship role of the management; all these activities of BOD are subject to laws and regulations of the land and approval of the shareholder in general meetings (Council and Britain, 2010). Since directors on the BOD, by and large, do not have enough ownership that they can influence the policies of the firm, therefore, law provides them with rights and defines their duties and expectations about their performance (Volonté, 2015). The BOD is the ultimate control that monitors and manages the agency problem (Said et al., 2016).

From the above discussion, it clear that the strategic guidelines are provided by the BOD to the firms so that the managers may not pursue the strategies of their own benefit. Therefore, there is nothing wrong in linking the financial performance (FP) of the firms with the BOD. Several studies have been conducted to find the association between financial performance and various factors of the BOD. Kalsie and Shrivastav (2016) investigated the relationship between the size of the BOD and FP of the firms listed over National Stock Exchange (NSE) of India. Their results supported the proposition that board size acts as a mean that influences the FP of the firm and larger board sizes have more positive impact on the FP because diversity on the board helps in understanding and addressing diverse stakeholder issues. Tulung and Ramdani (2018) examined the impact of board size, board independence on the performance of the regional development banks in Indonesia. The authors results significantly supported the relationship between FP and board size and board independence. Rathnayake and Sun (2017) conducted a study over the Asian countries, including China, India, Singapore, Pakistan, Malaysia and Sri Lanka, to find the impact of CG, corporate ownership and FP. The authors included board size, independence of shareholders, (i.e. no association with the firm other than the shareholding) and age of the firm as CG factors. Their results concluded that the firms performance can be

enhanced by improving the quality of the CG and the region show similar kind of trend. Overall, their results showed a significant link between the FP and CG especially in case of Pakistan and India.

## 2.1 Corporate Governance in Pakistan

Developing economies like Pakistan can reap more benefits by implementing CG. By adopting CG, accountability and transparency increase which eventually improve the corporate structure and business environment. After coming to operations in 1999, SECP enacted the foremost CCG in 2002 to enhance governance, transparency, accountability of the corporate sector. Much criticism was attracted by this CCG from the corporations but it was revolutionary and opened a new window in the field of governance (Ibrahim, 2006). The basic objective of this CCG is to protect the rights of the diversified stakeholders by introducing the best practices for directors to control and direct the firm (Javid and Iqbal, 2010). As the CCG was a sprout, therefore, many governance practices were not made mandatory to be adopted. The CCG of 2002 introduces the term of independent director and encourages corporates to give a valuable representation to the independent non-executive directors on the board so that the minority shareholders interests are represented effectively on the board. It requires corporates to establish audit committees and inter audit functions. It made it mandatory for directors to disclose their interest in the firm [Code of Corporate Governance (2002)]. This code was included in the listing regulations as mandatory compliance requirement of the firm, which is listed, or in process of listing on the stock exchanges of Pakistan (during that time there were three stock exchanges of Karachi, Lahore, and Islamabad) must have to comply with CCG.

After receiving feedback from the corporates, experts, and changes in the regulatory environment of the world, SECP in 2012 revised the CCG of 2002. This was aligned to the policy of fostering the standards of the CG in Pakistan and to catch up the intricacies of persistently advancing financial markets and corporate sectors of the world. This is far inflexible than the previous code of 2002. CCG of 2012 made it obligatory for the firms that they must have one independent director on the board and encouraged to have 1/3 of the total strength of the board. The criteria for being independent were made stricter. Restricting the executive directors to one-third of the size of the board reduced the influence of management on the board. It also provided the concept of the boards evaluation and restraining the CEO from becoming the Chairman of the board. Along with the chief financial officer and company secretary, appointment and removal of the head of internal audit comes under the responsibilities of BOD. It also introduces the concept of HR and Remuneration Committee. The internal audit committee must be chaired by an independent director and comprise of non-executive directors only. Various other measures are also made stricter. In 2017, SECP revisits the CCG of 2012 and revised it in the light of The Companies Act, 2017 which replaces the older company law, i.e. The Companies Ordinance, 1984. Since, at the time of conducting this study, the implementation effects of the CCG of 2017 cannot be reflected in the financial results of the corporates, therefore the CCG of 2012 has taken into consideration while performing this study.

Several studies are also conducted in Pakistan to gauge the impact of corporate governance measures over the FP of the firms. ?, analyzed the relationship between the board size, chief executive status (i.e. it holds the CEO and chairperson position simultaneously), annual general meeting (number of held in the year), audit committee and FP of the firms listed in the Oil and Gas Companies of, then, Karachi Stock Exchange (KSE), now Pakistan Stock Exchange (PSX). Their results suggested a positive relationship between the board size and annual general

meeting, whereas negative relationship between the audit committee and chief executive status with performance of the firm. [Yasser et al. \(2011\)](#) conducted a study over the firm listed over the KSE-30 to find the impact of CG variables over the FP. They included board composition, board size, audit committee and CEO/chairperson duality in their study as CG variables and found that these variables have significant positive association except for the CEO/chairperson duality, which did not show any significance in the study. [Patel \(2018\)](#) performed study over the food, personal care and cement sectors of Pakistan. The results suggest that presence of independent directors on the board negatively affected the FP of the firms in these sectors. This is because of the non-implementation of the CG in letter and spirit. In a study performed over the 10 cement sectors firms listed over PSX, [Kazi et al. \(2018\)](#) used the board structure, ownership structure, leverage and size of the firms as CG variables and examined its impact over the FP of the firm. Their results suggested that the implementation of the CG in Pakistan is poor due to which the CG measures showed a mixed trend over the FP of these firms. In another study over the cement sector of Pakistan, [Shahid et al. \(2018\)](#) used board size and leverage as CG variables and found no significant relationship between the board size and FP. They studied the CEO duality with board size but results were not significant, however, introduction of CEO duality changed the direction of impact from positive to negative.

According to [Al-Sartawi and Sanad \(2019\)](#), institutional holdings in the firms can serve the purpose of monitoring tool and influence the performance of the firms. But not all institutional investors play an active part in monitoring the firms activities, which does not mean that their presence as shareholder will influence the performance of the firm ([Lin and Fu, 2017](#)). Both of these studies have concluded differently. [Lin and Fu \(2017\)](#) found a positive association between the institutional holding and FP, whereas, [Al-Sartawi and Sanad \(2019\)](#) found negative association.

## 2.2 Board Independence (BODI)

According to the Code of Corporate Governance, promulgated by Securities and Exchange Commission of Pakistan (SECP), independent director is said to be independent when he does not have direct or indirect relationship with the firm other than the directorship. The reason for having non-executive independent directors over the board to reduce the agency cost, as these directors have no dependence over the management and provide an independent and impartial view about the business decision made by the firm and due to their independence shareholders trusted them as their representative ([Fuzi et al., 2016](#)). A board is said to be independent when the number of independent directors are greater than executive directors on the BOD ([Pearce II and Patel, 2018](#)).

In a study performed by [Rashid \(2018\)](#) to find the association between the independence of the BOD and FP. The author did not find any positive association between the same. [Kazi et al. \(2018\)](#) suggested a positive relationship between FP and BODI but the result failed to show significance. [Fuzi et al. \(2016\)](#) performed a study across difference countries and found a mixed trend between the relationship of BODI and FP. [Saad et al. \(2019\)](#) performed a study in which no impact was found of the independence of directors over the FP.

Therefore, based on review of past studies it has been hypothesized that:

*H<sub>1</sub>: Independence of the board of the directors has no impact on firms performance.*

### 2.3 Board Committees Independence (BODCI)

According to the Code of Corporate Governance (2012), promulgated by Securities and Exchange Commission of Pakistan (SECP), it recommended to have at least Audit Committee (AUC) and Human Resource and Remuneration Committee (HR&RC). Each committee composed of at least three directors, preferably headed by an independent director but not in any case chairperson of the board cannot head any committee. However, in HRRCM, CEO can be a member but cannot head the committee. It is obvious the BOD oversees every important matter of the firm (Chambers, 2017). The BOD requires sub-committees which enhances the monitoring process of the BOD and enhances firms performance (Singh et al., 2018). Committees are formed to effectively utilize the time of the non-executive directors as they have limited time to give to the firm (Choi et al., 1992). The independence of the committees is preferred because of the objectivity of the non-executive directors over the executive directors, their unbiased monitoring of the management activities and objectively ensuring that the control are effectively placed over management (Stapledon and Lawrence, 1997). Singhchawla et al. (2011) conducted a study to discover the impact of board and its sub-committees independence over the firms financial performance in Australia. Their results did not find any significant association between the independence of committees and FP; however, this insignificant impact was negative in case of Australia. Kallamu and Saat (2015) performed a study to find the impact of the presence of the independent director in the AUC. The results suggested a positive association between the two. Yasser et al. (2011) found a positive association between the independence of the AUC and FP. Agyemang-Mintah (2016) conducted research to find the impact of having a remuneration committee over the financial performance and found a positive significant association between the committee and FP. Muhammad et al. (2016) found positive impact over the performance of the firm in relation to presence of the audit committee in the firm which is chaired by an independent director.

Therefore, based on review of past studies it is hypothesized that:

*H<sub>2</sub>: Board committees independence has an impact on firms financial performance.*

### 2.4 Institutional Ownership/Shareholding (INOS)

Having institutional ownership in firm results in effective monitoring of activities and decisions of the management (Nashier and Gupta, 2016). Institutions may have such an amount of investments that enabled them to get director(s) appointed in the firms BOD (Singh et al., 2018). Institutions induce manager to perform well by exerting their influence over the BOD and reduced agency costs (Al-Matari et al., 2013). Institutions also have the skills and expertise to help firms in crisis situations and aid the firms from coming out of the crisis (Singh et al., 2018).

Sheikh et al. (2013) conducted a study to find link between the INSO and FP and found that in contrast to dispersed shareholders, institutional shareholders can effectively monitor the firms business activities, therefore, resulting in positive association between the two variables. Al-Matari et al. (2013) and Dash et al. (2008) also found positive correlation between INSO and FP in their conceptual study. However, Singh et al. (2018) did not establish any relationship between institutional ownership and firms performance.

Therefore, based on review of past studies it is hypothesized that:

*H<sub>3</sub>: Institutional ownership/shareholding has an impact on firms financial performance.*

$H_4$ : Presence of the institutional director(s) on the BOD has an impact on firms financial performance.

## 3 Methodology

### 3.1 Research Approach

The study is performed using the quantitative approach over the secondary data available in the published financial statement of the firms listed on the PSX in the cement sector. The published financial statements were downloaded from the respective websites of the firms.

### 3.2 Sample and Data

Firms listed in cement sector of PSX and involved in the manufacturing of cement have been selected as sample. The reason for selection of the cement sector is due to its substantial role in the development of the Pakistan (Kazi et al., 2018). The firms that were trading over the stock exchange on 30.06.2018 are selected. Two firms, i.e. Zeal Pak Cement Factory Limited and Dadabhoj Cement Industries Limited are not included due to being in the defaulter segment of the PSX. In 2015, Bestway Cement Limited acquired Lafarge Pakistan Cement Limited; therefore, both the firms are excluded due to incomparable and incomplete information of the respective firms. Safe Mix Concrete Limited and Javedan Corporation Limited are also excluded because both firms are not involved in cement manufacturing. Remaining 15 firms (see table 1) are included in the sample. Corporate governance and financial performance data have been obtained from published annual report and financial statements for a period of 2014 to 2018, comprising 75 firm year data.

### 3.3 Variables

#### 3.3.1 Independent Variables

Independent variables are selected using the literature review.

1. Board Independence (BODI) is measured by the composition of the non-executive independent directors on the board; it is calculated by sum of non-executive directors plus independent directors divided by the size of the BOD.
2. Board Committees Independence (BODCI) there are two mandatory committees of the board in the publicly listed firms in Pakistan, i.e. audit committee and human resource and remuneration committee. The independence of the both the committees are measured at a single dummy variable. The variable will have a value of 1 when both the committees are chaired by independent directors, or otherwise it will be assume a value of 0
3. Institutional Ownership/Shareholding (INOS) is the percentage of the ordinary shares held by the institutions divided by total number of ordinary shares outstanding.
4. Institutional Director on BOD (INOS\_D) is measured by a dummy variable and it has a value of 1 when institutions nominated director(s) is/are present on the board other it will assume a value of zero.

### 3.3.2 Dependent Variables

Selection of dependent variables is made through the literature review, following variables are considered to be taken as dependent variables, which predict the financial performance of the firm.

1. Return on assets (ROA) i.e. profit after tax (PAT) divided by total assets of the firm.
2. Return on equity (ROE) i.e. PAT divided by (Paidup equity capital + reserves).

### 3.3.3 Control Variables

Following are the control variables:

1. Leverage (LEVER) is the Leverage, i.e. Total Borrowings divided by total assets
2. Size (LNSIZE) is the Natural log of total sales.

## 3.4 Data Analysis

Statistical analysis is performed using the EViews 9.0. Descriptive analysis is performed

## 3.5 Descriptive Analysis

Descriptive analysis performed over the data and the results are presented in table 9. The analysis is performed in results and discussion section.

## 3.6 Model Specification

From the literature, it is observed that the firms financial performance (FP) is a function of board independence, board committees independence, institutional shareholding in the firm and presence of institutional director over the board. Our empirical model general form can be written as:

$$FP = f(BODI, BODCI, INOS, INOS\_D)$$

$$FP = \alpha + \beta_1 BODI + \beta_2 BODCI + \beta_3 INOS + \beta_4 INOS\_D$$

Where:

FP = Financial Performance of the firm.

BODI = Composition of the board of directors, i.e. percentage of independence over the BOD of the firm

BODCI = Independence of board of directors committees.

INOS = Institutional ownership/shareholding in the firm.

INOS\_D = Presence of Institutional Director(s) on the board of directors of the firm.

### 3.7 Test of Multicollinearity

The values are evaluated using the rule that if centered VIF is equal to or higher than 10, there is a very high multicollinearity. Since the value of R squared is too small and all the independent variables are insignificant, this indicates that data have no multicollinearity (Gujarati, 2011) (for details refer table 2).

### 3.8 Test of Heteroscedasticity

Heteroscedasticity is a result of variation in variance of the error term at different observation in the dataset and unbiasedness of the OLS estimators does not get affected, although they do not remain efficient (Long and Ervin, 1998). Therefore, it is a good practice to inspect for this problem in your data.

#### 3.8.1 Abridged Whites Test

Abridged Whites test is performed to find that the problem of heteroscedasticity in the data. The test is performed on following equation:

$$e_i^2 = \alpha_1 + \alpha_2 \text{ROEf} + \alpha_3 \text{ROEF}^2 + v_i$$

$$e_i^2 = \alpha_1 + \alpha_2 \text{ROAf} + \alpha_3 \text{ROEF}^2 + v_i$$

Where ROEf is the forecast value of return on equity and ROAf is the forecast value of return on assets. The p value of F-statistics is insignificant thus, the null hypothesis is retained (Gujarati, 2011) that the data do not have the problem of heteroscedasticity (for details see table 3).

### 3.9 Test of Autocorrelation

It is also known as serial correlation and it is common problem in time series. It is level of correlation between values of variables at different observations. Durbin Watson (DW) Test is performed to ascertain the presence of autocorrelation.

#### 3.9.1 Durbin Watson (DW) Test

DW test can be performed in two ways by using value of DW tabulated and DW calculated or by applying the rule of thumb (Gujarati, 2011). We applied rule of thumb that since the value of DW calculated/DW stats in the near to zero, therefore, there is a sign of positive autocorrelation (for details refer table 2).

### 3.10 Model Specification Errors

Model specification errors occur when irrelevant variables are included or relevant variables are excluded from the model, i.e. model is overfitted or underfitted respectively. In case of underfitted model, the results will be biased and estimates will be unreliable. However, in case of overfitted model, the coefficients are not biased but inefficient. In order to ascertain that the model is not underfitted, we use Ramseys RESET Test as follows.



### 3.10.1 Ramsey Regression Specification Error (RESET) Test

This test is used to ascertain that all the necessary variables are included in the model. This test is performed on the existing model, i.e. equation (1). Table 4 and table 5 depict the results of the test; the results are discussed in next section.

## 3.11 Remedial Measures

### 3.11.1 Multicollinearity

The data did not have the problem of multicollinearity; therefore, no remedial measures were applied.

### 3.11.2 Heteroscedasticity

The statistics used in the model did not suffer from the issue of heteroscedasticity; hence, no remedial procedure were employed.

### 3.11.3 Autocorrelation

Since the data had the problem of autocorrelation, we do not use simple OLS regression to find out the relationship between the financial performance and corporate governance measures. Therefore, in order to get rid of autocorrelation, we use HAC (Newey West) as covariance method in generalized linear models (GLM) regression analysis.

## 3.12 Estimation through GLM Regression

Generalized linear models (GLM) is regression type will result in optimal properties for the regressors and model is fitted using Maximum Likelihood estimation (6.1 - Introduction to Generalized Linear Models — STAT 504, n.d.) The results of the GLM are presented in table 6 and table 7. The discussion will be done in results section.

$$FP = \alpha + \beta_1 \text{BODI} + \beta_2 \text{BODCI} + \beta_3 \text{INOS} + \beta_4 \text{INOS\_D} + \beta_5 \text{Size} + \beta_5 \text{Leverage}$$

## 4 Results and Discussion

### 4.1 Descriptive Analysis

The descriptive statistics are presented in table 9.

### 4.2 Return on Equity (ROE)

ROE has a mean value of 17.71% with a standard deviation of 9.10%, which means that the firms under discussion earned an average 17.71% over their equity. The standard deviation 9.10% means the return in the cement sector will deviate just by  $\pm 1.61$  percentage. This indicates the firms in this sector have similar returns over their equities. The skewness, kurtosis and Jarque-Bera (JB) indicates the data is not normally distributed and negative skewness shows that the data has long left tail which means the return on equity will increase in the posterior years of study.

### 4.2.1 Return on Assets (ROA)

ROA is 9.26% with a standard deviation of 8.69%. This indicates that the firms under study earn an average 9.26% over their assets. The standard deviation is 8.69%, which indicates that the firms in the cement sector earn a consistent ROA with just 0.80%. The firms returns are more on their equity and lesser on their assets it means that cement sector has high leverage. The skewness, kurtosis and JB indicate that data is normal and have negative skewness. As discussed in ROE, the negativity indicates better return in the later years of the sample under study.

### 4.2.2 Board Independence (BODI)

The mean value for BODI is 76% and standard deviation is 12.66%. This is an indication that the boards in the cement sector comprised of 76% of independent non-executive directors. With  $\pm$  deviation of 9.62% at this standard deviation. This indicates that firms BOD are apparently quite independent. The skewness, kurtosis and JB indicate that data lag normality. The negativity in the skewness indicates that in the initial years of study the BOD has less independence which increases over the period.

### 4.3 Board Committees Independence (BODCI)

The mean value indicates that 82.67% of the firm years have independent directors chairing the BOD committees. It has a higher standard deviation of 38.11%, which indicates that independence of the committees varies in the sector. It also has negative kurtosis and the values of skewness and JB indicate that data is not normally distributed.

### 4.4 Institutional Ownership/Shareholding (INOS)

The data of INOS is not perfectly normally distributed but it is near to normal. It has a mean value of 12.66% and a low standard deviation of 9% indicates that average holding does not fluctuate too much in the firm years under study.

#### 4.4.1 Presence of Institutional Director on the Board of Directors (INOS\_D)

The mean value of 13.33% indicates very low presence of institutional directorship in this sector with a higher standard deviation of 34%. The data is also not normally distributed and positively skewed. This means in the initial years under study BOD had independence which later on decreases.

#### 4.4.2 Ramsey Regression Specification Error (RESET) Test

Ramseys RESET test was applied to find that the model is not underfitted. The results are presented in table 4 and 5. Table 4 represents ROE as dependent variable and according to the results, at  $\alpha = 0.10$ , the p-value 0.4622 of F-statistics implied that the null hypothesis has been retained. On the other hand taking ROA as dependent variable, the results at  $\alpha = 0.10$ , the p-value 0.4826 of F-statistics implied that the null hypothesis has been retained. This means that the existing model has not omitted any variables and it is not underfitted. Hence, using this model as specified in the equation (1), the regression provided unbiased coefficients and the estimates are reliable.

## 4.5 Estimations through GLM Regression

The results obtained from the GLM regression, are presented in table 6 and 7. Table 6 considers ROE as dependent variables and measure of financial performance. The table demonstrates that at  $\alpha = 10\%$ , that board independence (BODI) has a negative effect over the return on equity of the firm (ROE), however this relationship is statistically insignificant ( $p\text{-value} = 0.3340$ ). Indicating that the data under study did not have a significant relationship between the financial performance represented by ROE and composition of board of directors.

Independence of board committees (BODCI) has a significant negative effect on the ROE with  $p\text{-value} = 0.0460$ . This is an indication that the FP is adversely affected by the independence of the BOD committees. This means that if the chairpersons of the board committees are independent then it will adversely affect the ROE by 4.33%.

Institutional ownership or shareholding (INOS) has a positive impact over the FP of the firms under study. However, this relationship is found to be statistically insignificant. With  $p\text{-value} = 0.8314$ . This means that the ROE of the data under study has failed to establish any association with the INOS.

Presence of institutional director(s) over the BOD (INOS\_D) also has an insignificant relationship with financial performance ( $p\text{-value} = 0.3952$ ). However, upon analysis it has a positive association.

Control variables, i.e. size of the firm and leverage also failed to show any significance in this model. Table 7 considers ROA as dependent variable and a measure of financial performance. Upon analysis it is found that at  $\alpha = 10\%$ , that board independence (BODI) has a negative effect over the return on assets of the firm (ROA), however, this relationship is statistically insignificant ( $p\text{-value} = 0.9550$ ). Indicating that the data under study did not have a significant relationship between the financial performance represented by ROA and composition of board of directors.

Independence of board committees (BODCI) has significant negative effects on the ROA with  $p\text{-value} = 0.0590$  at  $\alpha = 10\%$ . This is in consistent with our previous model in which BODCI was negatively associated with ROE. This is an indication that the FP is adversely affected by the independence of the BOD committees. This means that if the chairpersons of the board committees are independent then it will adversely affect the ROE by 2.48%.

In this model, unlike previous model, institutional ownership or shareholding (INOS) has a negative impact over the FP of the firms under study. However, this relationship is also found to be statistically insignificant. With  $p\text{-value} = 0.9057$ . This means that the ROA of the data under study has also failed to establish any association with the INOS.

In this model, presence of institutional director(s) over the BOD (INOS\_D) also has an insignificant relationship with financial performance i.e. ROA ( $p\text{-value} = 0.5767$ ). However, upon analysis it also has a positive association. Unlike the previous model, in this model leverage is found to have negative association with financial performance expressed by ROA with a  $p\text{-value} = 0.0000$ . However, size has also been found to be insignificant.

When we examine the Akaike information criterion of both the models, it found that both models have low value, however, model with ROE as dependent variable has lower absolute value than the model with ROA as dependent variable, which suggests that while selecting model, ROE is found to be better representative of financial performance. Hannan-Quinn criterion also supported the selection.

## 4.6 Hypotheses Assessment Summary

*H<sub>1</sub>: Independence of the board of the directors has no impact on firms performance. Accepted*

*H<sub>2</sub>: H2 Board committees independence has an impact on firms financial performance. Accepted*

*H<sub>3</sub>: H3 Institutional ownership/shareholding has an impact on firms financial performance. Rejected*

*H<sub>4</sub>: H4 Presence of the institutional director(s) on the BOD has an impact on firms financial performance. Rejected*

## 4.7 Discussion

### 4.7.1 Hypothesis 1 Board Independence (BODI)

The hypothesis has been accepted at  $\alpha = 10\%$ , that independence of the board of directors has no impact on the firms performance. This indicates that the FP of the cement industry during the period under study does get affected by the independence of the BOD. Although, the findings suggested a negative impact as hypothesized in this study, but statistically it is insignificant both in the case of ROE and in the case of ROA. This is in line with the findings of ?, whereas in contrast to findings of [Fuji et al. \(2016\)](#).

### 4.7.2 Hypothesis 2 Board Committees Independence (BODCI)

The hypothesis is accepted at an  $\alpha = 10\%$ . Board committees are responsible for looking after the matters, which are not effectively monitored by BOD. The independence of board committees will affect positively the FP of the firms because they review the performance of the management with objectivity. However, our findings suggested that the firms of the cement sector under study have negative association between the FP and BODCI, meaning that independent directors at the BODCI have resulted in reduced financial performance. This finding is in contrast the findings of ? whereas [Singhchawla, Evans, & Evans \(2011\)](#) found a negative association but it was statistically insignificant.

### 4.7.3 Hypotheses 3 & 4 Institutional Ownership/Shareholding (INOS) and Presence of Institutional Director on the Board of Directors (INOS.D)

This hypothesis is rejected at  $\alpha = 10\%$ . Institutions are found to be disciplinary forces that restrict the firms to perform in manner that will result in positive financial performance. Presence of the director (s) on the BOD can help the institutions critically monitor the decision making process and restricting firms to divert the resources of unprofitable ventures. However, the data, of the cement sectors firm, under study failed to show any significance on the financial performance of the firm. This is in accordance with the findings of [Singh et al. \(2018\)](#) and in contrast to findings of ?.

## 5 Conclusion

The study has been conducted with an aim to find out the impact of independence over the board of directors on the financial performance of the firms listed in the cement sector of Pakistan Stock Exchange. The independence over the board of directors were measured using the presence of non-executive and independent directors over the board, the independence was

also captured in the board committees and also taking the institutional presence in the shareholding and board of directors as sign of independence from the management. The financial performance was measured using the return on assets (ROA) and return on equity (ROE).

Pakistan is an emerging economy and it is strengthening its corporate governance measures to catch-up with the already established practices in the world. Code of Corporate Governance is used by the regulator in Pakistan to promote a culture of independence over the board of directors in order to give consideration to all the shareholders not only the controlling shareholders and reduce the role of management in pursuing the objectives of their own benefit. The objectivity in the decision-making will help in reducing the agency costs and resulting in creation of value for the shareholders.

In context to cement industry of Pakistan, the independence and objectivity over the board did not contribute in the creation of value for the firm. The independence on the board directors did not contribute to enhance financial performance of the firms. When the independence is reflected in the sub-committees of the board of directors, it is found to be adversely affecting the financial performance of the firm. Independence on the BOD is also reflected by the presence of the directors by institutions of the firms and since these institutions have time, knowledge and expertise to run the business, therefore their presence on the board and shareholding is found fruitful for the financial performance of the. However, the firms under investigation did not significantly affect the presence of the directors of the institutions and their shareholding in the firm.

Taking the benefit of the objectivity and versatile experience of the independent directors is novel thing for Pakistani firms. According to a report by Pakistan Institute of Corporate Governance, Detailed Analysis Report Survey on Board Composition, Practices & Remuneration 2016, availability of good independent directors with versatile experience and required skills is difficult task in Pakistan. This report also stated the fact that large amount of time and efforts are required to improve the corporate governance structures in Pakistan. CG is evolutionary process and constant monitoring by the regulators, shareholder, and the board of directors of the processes involved will result in better corporate governance and firm performance. Therefore, it is time that will make the firms to learn how to take benefit from the objectivity, independence and corporate governance.

## 5.1 Limitations

One of the limitations of the study include that the firms of the cement sector were considered to find the impact of the independence, a study considering more sectors of PSX will add further to the literature. Furthermore, the study did not consider the association of the non-executive directors with controlling shareholder, which may have resulted in breach of independence. The study did not consider the availability of the free cash flows that is an important factor for the minority shareholders.

## 5.2 Recommendations

Further studies with comparative analysis of the independence over the BOD different sectors of the PSX and their financial performance will be beneficial for the stakeholder in understanding the CG environment. The studies may include free cash flows and shareholding concentration by controlling shareholders as control variables to find better association between the

independence and financial performance. Future studies may also be performed to find impact of revision of the Code of Corporate Governance over the time.

## References

- Agyemang-Mintah, P. (2016). Remuneration committee governance and firm performance in uk financial firms. *Investment management and financial innovations*, (13, Iss. 1 (contin.)):176–190.
- Al-Matari, E. M., Al-Swidi, A. K., and Fadzil, F. (2013). Ownership structure characteristics and firm performance: a conceptual study. *Journal of Sociological Research*, 4(2):464–493.
- Al-Najjar, B. and Clark, E. (2017). Corporate governance and cash holdings in mena: Evidence from internal and external governance practices. *Research in International Business and Finance*, 39:1–12.
- Al-Sartawi, A. M. M. and Sanad, Z. (2019). Institutional ownership and corporate governance: evidence from bahrain. *Afro-Asian Journal of Finance and Accounting*, 9(1):101–115.
- Chambers, A. (2017). *Chambers' Corporate Governance Handbook*. Bloomsbury Publishing.
- Cheema, K. U. R. and Din, M. S. (2013). Impact of corporate governance on performance of firms: A case study of cement industry in pakistan.
- Chhaochharia, V. and Laeven, L. (2009). Corporate governance norms and practices. *Journal of Financial Intermediation*, 18(3):405–431.
- Choi, F. D., Meek, G. K., and Fang, H. (1992). *International accounting*, volume 2. Prentice-Hall Englewood Cliffs, NJ.
- Council, F. R. and Britain, G. (2010). The uk corporate governance code.
- Dash, R. K., Sharma, C., et al. (2008). Government expenditure and economic growth: Evidence from india. *The IUP Journal of Public Finance*, 6(3):60–69.
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of management review*, 14(1):57–74.
- Fuzi, S. F. S., Halim, S. A. A., and Julizaerma, M. (2016). Board independence and firm performance. *Procedia Economics and Finance*, 37:460–465.
- Gompers, P., Ishii, J., and Metrick, A. (2003). Corporate governance and equity prices. *The quarterly journal of economics*, 118(1):107–156.
- Gujarati, D. N. (2011). *Econometrics by example*.
- Haque, F. and Arun, T. (2016). Corporate governance and financial performance: an emerging economy perspective. *Haque, F. & Arun, TG (2016). Corporate governance and financial performance: an emerging economy perspective. Investment Management and Financial Innovations*, 13(3):228–236.
- Hart, O. (1995). Corporate governance: some theory and implications. *The economic journal*, 105(430):678–689.
- Hillier, D., Pindado, J., De Queiroz, V., and De La Torre, C. (2011). The impact of country-level corporate governance on research and development. *Journal of International Business Studies*, 42(1):76–98.
- Ibrahim, A. A. (2006). Corporate governance in pakistan: Analysis of current challenges and recommendations for future reforms. *Wash. U. Global Stud. L. Rev.*, 5:323.
- Javid, A. Y. and Iqbal, R. (2010). Corporate governance in pakistan: Corporate valuation, ownership and financing. *Working Papers & Research Reports*, 2010.
- Judge, W. Q., Naoumova, I., and Koutzevol, N. (2003). Corporate governance and firm performance in russia: An empirical study. *Journal of World Business*, 38(4):385–396.
- Kallamu, B. S. and Saat, N. A. M. (2015). Audit committee attributes and firm performance: evidence from malaysian finance companies. *Asian Review of Accounting*.

- Kalsie, A. and Shrivastav, S. M. (2016). Analysis of board size and firm performance: evidence from nse companies using panel data approach. *Indian Journal of Corporate Governance*, 9(2):148–172.
- Kazi, A. G., Arain, M. A., and Sahetiya, P. D. (2018). Corporate governance and firm performance nexus: A case of cement industry of pakistan. *International Journal of Entrepreneurial Research*, 1(1):1–6.
- Lin, Y. R. and Fu, X. M. (2017). Does institutional ownership influence firm performance? evidence from china. *International Review of Economics & Finance*, 49:17–57.
- Long, J. S. and Ervin, L. H. (1998). Correcting for heteroscedasticity with heteroscedasticity consistent standard errors in the linear regression model: small sample considerations. *Indiana University, Bloomington, IN*, 47405.
- Michael, J., William, M., et al. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4):305–360.
- Muhammad, H., Rehman, A. U., and Waqas, M. (2016). The effect of corporate governance practices on firm performance: Evidence from pakistan. *The Journal of Business, Economics, and Environmental Studies (JBEEES)*, 6(1):5–12.
- Nashier, T. and Gupta, A. (2016). The effect of institutional ownership on firm performance. *IUP Journal of Corporate Governance*, 15(3):36.
- Naveed, A., Ahmad, U., and Bushra, F. (2011). Promotion: A predictor of job satisfaction a study of glass industry of lahore (pakistan). *International Journal of Business and Social Science*, 2(16).
- Ocasio, W. and Joseph, J. (2005). Cultural adaptation and institutional change: The evolution of vocabularies of corporate governance, 1972–2003. *Poetics*, 33(3-4):163–178.
- Patel, M. A. (2018). Corporate governance and financial performance in an emerging economy context: Evidence from pakistan's food, personal care and cement sectors. *South Asian Journal of Management*, 25(1).
- Pearce II, J. A. and Patel, P. C. (2018). Board of director efficacy and firm performance variability. *Long Range Planning*, 51(6):911–926.
- Rashid, A. (2018). Board independence and firm performance: Evidence from bangladesh. *Future Business Journal*, 4(1):34–49.
- Rathnayake, D. and Sun, G. (2017). Corporate ownership, governance and performance: Evidence from asian countries. *Rathnayake, DN, & Sun, G.(2017). Corporate Ownership, Governance and Performance: Evidence from Asian Countries. Research Journal of Finance and Accounting*, 8(15):28–36.
- Saad, S., Hoque, A., Siddiqui, B. A., Awang, Z., and Yili, D. (2019). Dynamic agripreneur ramification on agri-firm business performance: A study of rural development in bangladesh. In *International Postgraduate Research Conference (2 nd IPRC 2019)*, Universiti Sultan Zainal Abidin (UniSZA), Gong Badak Campus, Kuala Terengganu, Malaysia, December.
- Said, R., Arsada, S., and Ahmad, R. (2016). The influence of boards of directors, ownership structures and women on boards on the extent of corporate social responsibility reporting in malaysian public listed companies. *Women and Sustainability in Business: A Global Perspective*, page 203.
- Shahid, M. N., Siddiqui, M. A., Qureshi, M. H., and Ahmad, F. (2018). Corporate governance and its impact on firms performance: evidence from cement industry of pakistan. *J. Appl. Environ. Biol. Sci*, 8(1):35–41.
- Shaukat, A. and Padgett, C. (2005). The uk code of corporate governance: Link between compliance and firm performance. *ICMA Centre Finance Discussion Paper No. DP2005-17*.
- Sheikh, M. F., Shah, S. Z. A., and Akbar, S. (2018). Firm performance, corporate governance and executive compensation in pakistan. *Applied economics*, 50(18):2012–2027.
- Sheikh, N. A., Wang, Z., and Khan, S. (2013). The impact of internal attributes of corporate governance on firm performance. *International Journal of Commerce and Management*.

- Shleifer, A. and Vishny, R. (1997). A study of corporate governance. *The Journal of Finance*, LII, 2.
- Singh, S., Tabassum, N., Darwish, T. K., and Batsakis, G. (2018). Corporate governance and tobin's q as a measure of organizational performance. *British Journal of Management*, 29(1):171–190.
- Singhchawla, W., Evans, R., and Evans, J. (2011). Board independence, sub-committee independence and firm performance: Evidence from australia. *Asia Pacific Journal of Economics & Business*, 15(2):1–15.
- Stapledon, G. P. and Lawrence, J. (1997). Board composition, structure and independence in australia's largest listed companies. *Melb. UL Rev.*, 21:150.
- Tulung, J. E. and Ramdani, D. (2018). Independence, size and performance of the board: An emerging market research. *Corporate Ownership & Control*, 15(2).
- Volonté, C. (2015). Boards: Independent and committed directors? *International review of law and economics*, 41:25–37.
- Yasser, Q. R., Entebang, H. A., and Mansor, S. A. (2011). Corporate governance and firm performance in pakistan: The case of karachi stock exchange (kse)-30. *Journal of economics and international finance*, 3(8):482–491.



---

**Sample Cement Manufacturers**

---

"Attock Cement Pakistan Limited"  
"Cherat Cement Company Limited"  
"Dewan Cement Limited"  
"D. G. Khan Cement Company Limited"  
"Dandot Cement Company Limited"  
"Flying Cement Company Limited"  
"Fecto Cement Company Limited"  
"Fauji Cement Company Limited"  
"Gharibwal Cement Limited"  
"Kohat Cement Company Limited"  
"Lucky Cement Limited."  
"Maple Leaf Cement Factory Limited"  
"Power Cement Limited"  
"Pioneer Cement Limited"  
"Thatta Cement Company Limited"

---

**Firms under Defaulter Segment**

---

"Zeal Pak Cement Factory Limited"  
"Dadabhoy Cement Industries Limited"  
"Ready-Mix Concrete Firm"  
"Safe Mix Concrete Limited"  
"Real-Estate Firm"  
"Javedan Corporation Limited"

---

**Merged Firms-Incomplete Financial Data Available**

---

"Bestway Cement Limited."  
"Lafarge Pakistan Cement Limited."

---

Table 5.1: Test of Multicollinearity

Variable	Dependent Variable: ROE		Dependent Variable: ROA	
	Coefficient	Prob.	Coefficient	Prob.
C	-0.061746	0.8591	0.081688	0.6693
BODI	-0.105116	0.2414	-0.003213	0.9478
BODCI	-0.04327	0.1416	-0.024792	0.1256
INOS	0.019155	0.8767	-0.006209	0.9271
INOS_D	0.028418	0.4065	0.010355	0.5815
LEVER	0.050294	0.2191	-0.206437	0
SIZE	0.032643	0.33	0.012937	0.4816
R-squared	0.066283		0.690814	
Adjusted R-squared	-0.016103		0.663532	
F-statistic	0.804538		25.322	
Prob(F-statistic)	0.569883		0	
Akaike info criterion	-1.850577		-3.048036	
Schwarz criterion	-1.634278		-2.831737	
Hannan-Quinn criter.	-1.764211		-2.96167	
Durbin-Watson stat	0.829086		0.829441	

Table 5.2: Test of Heteroscedasticity

Variable	Dependent Variable: RESID^2			
	ROE		ROA	
	Coefficient	Prob.	Coefficient	Prob.
C	-0.003231	0.9529	-0.009562	0.5325
ROEF	0.191988	0.7525	0.154965	0.364
ROEF^2	-0.725151	0.665	-0.488208	0.2988
R-squared	0.034836		0.053581	
Adjusted R-squared	0.008026		0.027292	
F-statistic	1.299361		2.038123	
Prob(F-statistic)	0.279023		0.137722	

Table 5.3: Model Specification Error (Dependent Variable ROE)

---

Ramsey RESET Test  
 Equation: OLS\_ROE  
 Specification: ROE C BODI BODCI INOS INOS.D LEVER SIZE  
 Omitted Variables: Squares of fitted values

---

	<b>Value</b>	<b>df</b>	<b>Probability</b>
t-statistic	0.739469	67	0.4622
F-statistic	0.546814	(1, 67)	0.4622
Likelihood ratio	0.546814	1	0.4596

---

Table 5.4: Model Specification Error (Dependent Variable ROA)

---

Ramsey RESET Test  
 Equation: OLS\_ROA  
 Specification: ROA C BODI BODCI INOS INOS.D LEVER SIZE  
 Omitted Variables: Squares of fitted values

---

	<b>Value</b>	<b>df</b>	<b>Probability</b>
t-statistic	0.706045	67	0.4826
F-statistic	0.498499	(1, 67)	0.4826
Likelihood ratio	0.498499	1	0.4802

---

Table 5.5: Regression Analysis

<b>Dependent Variable: ROE</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>z-Statistic</b>	<b>Prob.</b>
C	-0.061746	0.46258	-0.133482	0.8938
BODI	-0.105116	0.108803	-0.966106	0.334
BODCI	-0.04327	0.021687	-1.995182	0.046
INOS	0.019155	0.089978	0.212882	0.8314
INOS_D	0.028418	0.033425	0.85021	0.3952
LEVER	0.050294	0.042716	1.177392	0.239
SIZE	0.032643	0.042733	0.763894	0.4449
Mean dependent var	0.177079	S.D. dependent var		0.091031
Sum squared resid	0.572563	Log likelihood		76.22236
Akaike info criterion	-1.84593	Schwarz criterion		-1.629631
Hannan-Quinn criter.	-1.759564	Deviance		0.572563
Deviance statistic	0.00842	Restr. deviance		0.613209
LR statistic	4.827231	Prob(LR statistic)		0.566156
Pearson SSR	0.572563	Pearson statistic		0.00842
Dispersion	0.00842			

Table 5.6: Regression Analysis

<b>Dependent Variable: ROA</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>z-Statistic</b>	<b>Prob.</b>
C	0.081688	0.258658	0.315814	0.7521
BODI	-0.003213	0.056931	-0.05643	0.955
BODCI	-0.024792	0.013132	-1.887873	0.059
INOS	-0.006209	0.052386	-0.118522	0.9057
INOS_D	0.010355	0.018548	0.558283	0.5767
LEVER	-0.206437	0.021082	-9.791896	0
SIZE	0.012937	0.024651	0.524794	0.5997
Mean dependent var	0.092584	S.D. dependent var		0.086928
Sum squared resid	0.172891	Log likelihood		121.1271
Akaike info criterion	-3.043389	Schwarz criterion		-2.82709
Hannan-Quinn criter.	-2.957023	Deviance		0.172891
Deviance statistic	0.002543	Restr. deviance		0.559182
LR statistic	151.932	Prob(LR statistic)		0
Pearson SSR	0.172891	Pearson statistic		0.002543
Dispersion	0.002543			



# Online Review and Customer Purchase Intention in Social E-Commerce Context; Role of Trust as a Mediator and Source Credibility as Moderator

Dr. Muhammad Tahir\*

*Nizwa College of Technology, Nizwa, Sultanate of Oman.*

---

**Abstract.** Previous literature supports the role of online reviews in influencing customer purchase intentions in the online context. However, the research gap exists based on the underlying mechanism of influence of online reviews on customer purchase intentions and the mediating and moderating variables in this relationship. The current study addressed this research gap by developing and testing a model of online reviews and customer purchase intention in the social media-e-commerce context. Additionally, we tested trust as mediator and source credibility as moderator. Data were collected from 360 participants of social media users by using an online survey. The analysis was performed through confirmatory factor analysis using AMOS and consists of two stages. The result indicates that online reviews have positive and significant effects on purchase intentions ( $\beta=.352$ ,  $P<0.05$ ); and customer trust ( $\beta=.691$ ,  $P<0.05$ ). Furthermore, customer trust has positive and significant effects on purchase intention ( $\beta=.240$ ,  $P<0.05$ ). Additionally, we found partial support for the mediating nature of trust between the relationship of online reviews and purchase intention. We also found support that source credibility moderates the mediating relationship of customer trust. Our findings imply that trust and source credibility play significant role in shaping the online reviews and purchase intention relationship.

**Key words:** Online Reviews, Trust, Source Credibility, Purchase Intentions, Social Media, e-Commerce, Pakistan.

---

## 1 Introduction

The trend of online shopping is increasing leading to reduction in in-store shopping (Lee et al., 2017). For individual customers to engage in online shopping over the traditional one, there are diverse reasons but convenience and flexibility of online shopping stand out as the most prominent reasons. A customer only needs a PC/laptop or smartphone and internet connection to browse through different websites for comparing products and making a purchase decision. The traditional stores are mostly closed at night but online shopping continues 24/7, thus giving greater flexibility to customers. Avoidance of parking issues, long queues, and crowds

---

\*Corresponding author.

Email: tahirkhanzaee@gmail.com

is also a reason for customers to prefer online shopping. The online purchase also enables a comparison of a lot of information and surveying feedback of previous customers before making a purchase.

The challenges which are brought by online shopping include security as the customer may have to reveal their sensitive information such as banking details to the merchant which can be risky. The intangible nature of online shopping also makes it difficult to do the shopping for certain products such as clothes or shoes because of fitting or quality issues. To overcome such challenges, customers and online sellers adopt different strategies. For example, customers search for online reviews about products and sellers before deciding about making an online purchase. By reading the reviews of previous customers, a customer can judge the authenticity of the product and the online sellers (Liang, 2016). Online reviews are a type of feedback and are mostly referred to as user-generated content (Bae and Lee, 2011). Online reviews are considered as credible by customers against other information sources due to the neutral nature of online reviews (Fang et al., 2014). The online reviews work like word of mouth referral but the difference is that real word of mouth is done by individuals who are known to a person while electronic word of mouth mostly remains anonymous. The online sellers also use testimonials from previous customers as a strategy to build a reputation among potential customers. Online review provides an important source of product information and enables a business to get an insight into the consumer attitude (Huang et al., 2015). Thus, online reviews are significantly important for both seller and buyers in online context. In the present study, the role of online reviews in shaping an individuals purchase intention is investigated in the context of social media-based online stores. Furthermore, we also investigate the role of trust as a mediator and source credibility as a moderator in this relationship.

## 1.1 Problem Statement

The main theme of the study is testing the influence of the customer perception on online purchases and the role of online reviews. The problem is that with the rise of electronic commerce, the issue of quality of the product is also becoming prominent. Sometimes customer makes an online purchase but receives defective products or low-quality products or products with different specifications. The result is that there is a lot of suspicions and lack of trust attached to online shopping in Pakistan. For an online seller, it is important to understand how different factors can contribute to building customer trust and influence customer purchase decisions. The present study investigates this issue with the help of factors including online reviews, customer trust, and source credibility. The study is based on the following problem statement:

Investigation of online reviews as an antecedent of online purchase intention, mediating role of trust and moderating role of source credibility in the context of the social media-based online stores

## 1.2 Objectives of the Study

The objectives of the study include testing the influence of online reviews on customer online purchase intention and mediating role of customer trust. Additionally, the objective is to test if source credibility moderates the mediation relationship of customer trust.



### 1.3 Significance of the Study

The study is based on social commerce-based marketing in Pakistan for which there is little literature available. The findings can be useful for the management of social media-based online stores (e.g. Facebook, Instagram) in understanding the factors influencing customer intentions to purchase especially in the Pakistani context. The findings may also be useful for academics, students, and future researchers.

## 2 Literature Review

### 2.1 Online Reviews

Online reviews refer to customer-generated information and recommendations presented online by customers about a product and related to customers experiences, evaluation, and opinion (Bae and Lee, 2011). Different platforms exist which can be categorized as generic such as epinions.com; retailers websites such as amazon.com; websites of brands such as forums.us.dell.com; and blogs such as twitter exist for a customer to leave online reviews or read reviews of other users. Customers use these online reviews as a key source of information for determining whether to make an online purchase or not (Kostyra et al., 2016). These online reviews provide the potential customer guidance about product use, specifications, and feedback. While searching for online reviews, a customer may encounter positive, negative, or both reviews. However, research in this domain suggests that negative reviews produce greater effects on an individuals purchase intentions (Cui et al., 2012). The popularity of online reviews is increasing as research by KPMG (2017) showed that online reviews are given top priority by Asian consumers. Similar are the findings of the study by O'Neil and Eisenmann (2017) which indicated that among the various information channels, (such as paid, earned, and shared channel), customers considered the shared channels such as online reviews as the most credible one. Online reviews are given high value by the potential customers mainly because of the neutrality of these reviews (Fang et al., 2014).

### 2.2 Online Purchase Intention

In an online context, purchase intention is about customer intention to buy from an online source (Chen and Barnes, 2007). Different factors such as familiarity with the e-commerce platform and nature of product being purchased influence purchase intentions of a customer. The intentions instead of actual purchase behavior is often used as a proxy variable in marketing literature due to its easier measurement and higher predictive power of actual purchase behavior (?). Therefore, in the present study, online purchase intention is used instead of the actual online purchase behavior of customers.

### 2.3 Role of Trust in E-Commerce

In a business relationship, trust plays an important role as without trust, important negotiations and dealings cannot be finalized. In the online business context, trust is about belief that e-business will not adopt an opportunistic behavior and will not exploit customer (Hong and Cha, 2013). Higher trust in online business means customers believe that the online business will not deceive or cheat them. Because of the very nature of the online business, especially in

Pakistan, trust is becoming a crucial factor in online transactions. Several studies recognized the importance of trust in social commerce such as ?. Thus, it can be argued that in an online context, trust plays a key factor that can make an online business successful or fail.

## 2.4 Online Review and Purchase Intention

In a social media e-commerce context, potential customers mostly search for reviews from existing customers before deciding on purchase from a particular online social media store. Thus, online reviews significantly predict purchase decision. Several studies recognized such relationship. For example, a study by [Beneke et al. \(2016\)](#) showed that purchase intention of South African consumer electronic customers is influenced by online reviews. A study by [Hsu et al. \(2017\)](#) reported that purchase intention is predicted by online reviews, while the product type playing a moderating role in this relationship. Other studies also reported similar findings (?). We propose the following hypothesis based on the above discussion:

*H<sub>1</sub>: Online reviews have significant and positive effect on customer purchase intention.*

## 2.5 Mediating role of Customer Trust

The mediating nature of customer trust is based on online reviews and customer trust relationship and subsequently influence of trust on purchase intention. Accordingly, if a potential customer comes across many positive reviews about a particular seller or product so he/she will likely develop a higher trust in such a seller or product leading to higher probability of engaging in purchase process. While, an unfavorable feedback will negatively influence a potential customer trust towards an online seller, and the chances of online purchases will be decreased. Previous studies acknowledge such relationships. For example, a study by [Sparks et al. \(2016\)](#) showed that peer customer reviews influence customer trust levels. Other studies also found similar results including ?.

Subsequently, customer trust is also found to be influencing the customer purchase intention thus supporting its mediating nature. If a customer has higher trust developed on the online seller, so he/she is more likely to engage in purchase intention. This is because trust significantly predicts purchase decisions in the online environment. Available literature supports the predictor nature of trust for purchase intentions as cited in different studies. For example, a study by [Oghazi et al. \(2018\)](#) highlighted the influence of trust on customers purchase intention. Other studies also found similar results including ?. Accordingly, we propose the following hypotheses:

*H<sub>2</sub>: Online reviews have significant effect on customer trust.*

*H<sub>3</sub>: Trust has a positive effect on a customer purchase intention.*

*H<sub>4</sub>: Trust functions as a mediator between the relationship of online reviews and purchase intention.*

## 2.6 Source Credibility as a Moderator

In social media, a user may expose to variety of online reviews which pose a challenge to select credible reviews and discard the non-realistic and fake reviews ([Hlee et al., 2019](#)). If an individual considers the source of the information as credible, then individuals will more likely be influenced by such reviews. On the other hand, reviews from an incredible source will have

little influence on individuals. By credible source it means provision of accurate information or informatin which can be trusted (Visentin et al., 2019). Previous studies show that the credibility of the source as perceived by the individual influences their attitude towards the review (?). Based on its very nature, we propose that source credibility can moderate the mediating relationship of customer trust between online reviews and purchase intentions. This is because if an online review source is perceived to be lacking credibility, a customer will less likely develop trust and involve in online purchase intention. On the other hand, an online review source with higher credibility will more likely influence customer trust and purchase intention. Therefore, we develop the following hypothesis:

*H<sub>5</sub>: Source credibility moderates the mediating nature of customer trust between the relationship of online reviews and purchase intention.*

## 3 Research Method

### 3.1 Research Design

The quantitative research method is adopted in the study as it allows empirical testing and suits with the explanatory nature. The study is cross-sectional and employs survey method for primary data collection.

### 3.2 Population and Sampling

The population of the study is online shoppers who have made an online purchase through social commerce websites. For data collection, we used the convenience non-random sampling approach. The criteria for inclusion are all individuals who have made social commerce based online purchase during the last 6 months. The data were collected through Google online form which was circulated using social media sites including Facebook and Twitter. Individuals were first briefed about the objective of the study and if agreed, they were forwarded a link to an online questionnaire. The survey generated a usable sample of 360 participants.

### 3.3 Measures

Measure for online reviews is adapted from Kim et al. (2009) consisting of 4 items. Trust is adapted from Chen et al. (2016) which consists of 3 items. Purchase intention is measured by 3 items and based on measure of Chen and Barnes (2007). Source credibility is adapted from Cheung et al. (2009) consisting 3 items. Five-point Likert scale is used for measurement.

### 3.4 Reliability and Validity

Reliability is the consistency of results over time (Zikmund et al., 2013). The reliability of constructs was tested using the Cronbachs alpha and Composite Reliability (CR) and the cut of value is 0.60 as suggested by Hair Jr et al. (2017). Convergent and discriminant validity is evaluated as part of the assessment of the content validity.

### 3.5 Data Analysis

Data once collected were screened for any errors and discrepancies. We utilized AMOS version 20 for conducting confirmatory factor analysis (CFA) for data analysis. The analysis is based on two stages. The reliability and validity is tested through analysis of measurement model in the first stage. The hypotheses are tested by analysis of structural model in the second stage.

## 4 Results

### 4.1 Demographic Profile of the Survey Participants

Table 4.1: Demographic Profile

	Frequency	Percentage
<i>Gender</i>		
Male	284	78.9%
Female	76	21.1%
<i>Age</i>		
18 to 30	202	56.1%
30 to 40	99	27.5%
40 to 50	56	15.6%
Above 50	3	.8%
<i>Qualification</i>		
Intermediate	198	55.0%
Bachelor	123	34.2%
Master	36	10.0%
Others	3	.8%
<i>Marital Status</i>		
Single	219	60.8%
Married	133	36.9%
Divorced	8	2.2%

There were 284 males (78.9%) and 76 females (21.1%) who participated in the survey. In terms of age, 202 respondents belonged to 18 to 30 years (56.1%); 99 respondents belonged to 30 to 40 years (27.5%); 56 participants belonged to 40 to 50 years (15.6%); and 3 participants were in the age category of above 50 years (.8%). 198 participants had qualification level of intermediate

(55%); 123 had qualification level of bachelor (34.2%); 36 had qualification level of master (10%); and 3 had other level qualifications (.8%). 219 participants were single (60.8%); 133 were married (36.9%); and 8 were in divorced category (2.2%).

### 4.2 Reliability and Validity Analysis

Structural equation modeling (SEM) through AMOS version 18 has been used for analysis. The analysis included confirmatory factor analysis (CFA) for assessing the reliability, validity, and fitness of proposed measurement model. The second part of the analysis is based on structural model assessment for hypotheses testing including direct effects, mediation, and moderation.

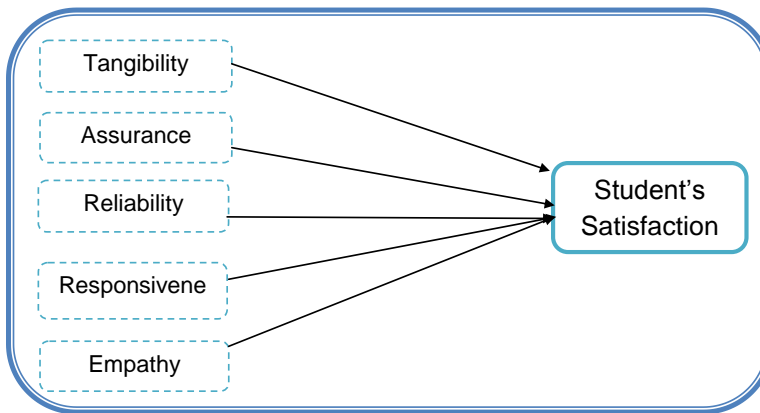


Figure 1: Measurement Model

The results for convergent validity and reliability are provided in the following table.

The average variance extracted (AVE<sub>≥0.05</sub>) and standardized regression weight (SRW<sub>≥0.05</sub>) are used for testing the convergent validity. The values are based on the guideline by Hair, et al., (2017). All individual item's standardized loading is above 0.50 and all variables AVE is above 0.50, so it is an indication of convergent validity (Hair, et al., 2017). The model also shows acceptable goodness of fit (2/df = 2.530, RMR = 0.031, GFI = 0.905, AGFI = 0.902, CFI = 0.931, RMSEA = 0.056). The internal consistency is assessed using the CR and Cronbachs alpha. The CR and Cronbachs alpha of all constructs is above 0.70 indicating that our scales are reliable. For discriminant validity, we used the [Fornell and Larcker \(1981\)](#) criteria of comparison of the squared root of AVE with variables correlation. The results are provided in the table 4.3.

The square root of AVE is in diagonal bold and other values are inter-variable correlation. The criteria for discriminant validity is fulfilled as all bold values are greater than other values in its respective column and rows.

### 4.3 Hypotheses Testing

Before testing the hypotheses, we performed the multi-group measurement invariance test. This test compares the different groups result in a study which in our moderated mediation model was relevant to the high versus low perceived sourced credibility. The invariance test

Table 4.2: Reliability and Convergent Validity

Factor	Item	Standardized Factor Loading	Cronbach Alpha	Composite Reliability	AVE
Online Reviews (OR)	OR1	.607	.808	.850	.535
	OR2	.732			
	OR3	.789			
	OR4	.674			
	OR5	.835			
Trust (T)	T1	.883	.754	.847	.651
	T2	.745			
	T3	.787			
Purchase Intentions (PI)	PI1	.840	.687	.812	.591
	PI2	.754			
	PI3	.708			
Source Credibility (SC)	SC1	.757	.781	.787	.557
	SC2	.608			
	SC3	.854			

$\chi^2/df = 2.530$ ,  $RMR = 0.031$ ,  $GFI = 0.905$ ,  $AGFI = 0.902$ ,  $CFI = 0.931$ ,  $RMSEA = 0.056$

Table 4.3: Discriminant Validity

	1	2	3	4
Online Reviews	<b>.731</b>	.514	.392	.544
Trust	.514	<b>.807</b>	.362	.570
Purchase Intentions	.392	.362	<b>.769</b>	.422
Source Credibility	.544	.570	.422	<b>.746</b>

is used when there is a need to test the structural relationship differences in a model (Hair Jr et al., 2017). Gaskin et al. (2012) suggested procedure is utilized for conducting multi-group invariance test. The procedure consists of splitting a sample into two separate sets based on average value. An MS Excel statistical tool is used for examining the differences of both groups unstandardized regression weights and critical ratios. We inspected the resulting z-score and concluded that our sample is invariant as all z-score were within the acceptable range of 2.

Next, for testing the common method bias, we utilized the method proposed by Podsakoff

et al. (2003). The common latent factor (CLF) method is based on adding a latent factor to a common latent factor model and making connection with all observed items. Next, comparison is made between the standardized regression weight from this new model with the model without such CLF. Our result indicated no item with a difference of greater than 0.2, so it indicates that common method bias do not create much problem in our study. Next, we assessed the individual coefficients based on path analysis for hypotheses testing. The result is provided in table 4.4.

Table 4.4: Hypotheses Testing- Path Analysis

H. No.	Relationship	Estimate	Remarks
H1	Online Reviews>Purchase Intention	.363*	Supported
H2	Online Reviews>Trust	.691***	Supported
H3	Trust>Purchase Intention	.240*	Supported

\*<.05, \*\*<.01, \*\*\*<.001

The result indicates that online reviews exert a significant positive influence on purchase intention of customers ( $\beta=.352, P<0.05$ ) and customer trust ( $\beta=.691, P<0.05$ ). Furthermore, trust exerts a significant positive influence on purchase intention ( $\beta=.240, P<0.05$ ). Thus, we found support for H<sub>1</sub>, H<sub>2</sub>, and H<sub>3</sub>. Next, we assessed mediation effects. The results are shown in table 4.5.

Table 4.5: Hypothesis Testing Indirect Effects

H. No.	Path	Direct Effect	Indirect Effects	Remarks
H4	Online Reviews>Trust>Purchase Intention	.363*	.171*	Partial Mediation

\*<.05, \*\*<.01, \*\*\*<.001

The mediation is tested using the analysis of indirect effects. The result indicates a reduction in beta size but the significance level remains the same so it is an indication of only partial mediation. Thus, we found partial support for the H<sub>4</sub>. Next, we assessed the moderated-mediation analysis.

Source credibility is evaluated as a moderating variable in the study moderating the mediating nature of trust between the online reviews and purchase intentions. We tested moderated-mediation by testing the moderated-mediation paths significance, and the difference in mediation effects at a high and low level of source credibility. The results are calculated for both groups and presented above. The difference for high and low groups of source credibility for indirect effect is statistically significant (.035, P<.05). The significant difference indicates that source credibility is moderating the online reviews and purchase intention relationship while mediated by trust. Thus, we accept the H<sub>5</sub>.

Table 4.6: Hypothesis Testing- Moderated-Mediation Effect

	Online Reviews > Purchase Intentions (Direct Effects)	Online Reviews > Trust > Purchase Intentions (Indirect Effects)	Total Effects
<b>Source Credibility (H5)</b>			
Source Credibility-High	.352	.166	.518
Source Credibility- Low	.307	.131	.438
Difference	.045*	.035*	.080*

\* $<.05$ , \*\* $<.01$ , \*\*\* $<.001$

## 4.4 Discussion

The study tested the effect of online reviews on customer purchase intention and trust. Additionally, we tested the mediating nature of trust in this relationship and source credibility as moderating this mediation relationship. The study is based on a quantitative approach and we collected data from 360 participants through the survey method. Our key results are that online reviews exert positive and significant effects on customer purchase intention and trust, thus highlighting the role of the online reviews in the context of social media-based e-commerce. Similar results are reported in earlier studies including ?. Other notable findings are that customer trust mediates the online reviews and purchase intentions relationship. Even though we only found support for the partial mediation, still it highlights the role of trust in online shopping context as reported in earlier studies, including ?. Furthermore, our findings indicate that source credibility moderates the mediating nature of customer trust. In other words, if source credibility is low, then online reviews are less likely to influence customer purchase intention while mediated by customer trust. Thus, it shows the significance of the source credibility in the hypothesized relationships. Source credibility is also found to be an important factor in online context as found in previous studies including ?. Overall, our results are supported by the literature.

## 5 Conclusion

The study concludes that online reviews are highly important in social media e-commerce context. These online reviews are found to be influencing the purchase intention of individuals as well as their trust level. It can be concluded that online reviews are gaining increased popularity in Pakistani context. The role of trust is further highlighted in the study based on the nature of Pakistani society and the e-commerce maturity level. Furthermore, source credibility also plays its significant role in shaping the mediating relationship of customer trust between online reviews and customer purchase intentions.



## 5.1 Implications

The implications of the study findings for the social media-based e-store owners are that they should develop a positive relationship with customers based on trust. These store owners should not compromise the quality of products for short term gains as it will have negative effects on business in the long term. Having such a relationship will make customers leave positive feedback on social media and thus enable a business to attract new customers. Genuine and fair online reviews will enable a customer to perceive the source as credible and thus will positively influence the customers' trust and purchase intentions. On the other hand, if fake reviews are added so potential customers will soon recognize the pattern and put doubt on the quality of reviews leading to discouraging purchase intentions.

## 5.2 Limitations and Directions for Future Research

The study limitations include perceptual measures, cross-sectional design, and small sample size based on convenience non-random sampling. A future researcher can work with a larger sample with a mixed or qualitative research design. Demographic variables such as gender, age, and variables like product type also influence online reviews and customer purchase intention relation, so these can be used as moderators in the future studies.

## References

- Bae, S. and Lee, T. (2011). Gender differences in consumers perception of online consumer reviews. *Electronic Commerce Research*, 11(2):201–214.
- Beneke, J., de Sousa, S., Mbuyu, M., and Wickham, B. (2016). The effect of negative online customer reviews on brand equity and purchase intention of consumer electronics in south africa. *The international review of retail, distribution and consumer research*, 26(2):171–201.
- Chen, L., Wang, R., et al. (2016). Trust development and transfer from electronic commerce to social commerce: an empirical investigation. *american journal of industrial and business management*, 6(05):568.
- Chen, Y.-H. and Barnes, S. (2007). Initial trust and online buyer behaviour. *Industrial management & data systems*.
- Cheung, M. Y., Luo, C., Sia, C. L., and Chen, H. (2009). Credibility of electronic word-of-mouth: Informational and normative determinants of on-line consumer recommendations. *International journal of electronic commerce*, 13(4):9–38.
- Cui, G., Lui, H.-K., and Guo, X. (2012). The effect of online consumer reviews on new product sales. *International Journal of Electronic Commerce*, 17(1):39–58.
- Fang, Y., Qureshi, I., Sun, H., McCole, P., Ramsey, E., and Lim, K. H. (2014). Trust, satisfaction, and online repurchase intention. *Mis Quarterly*, 38(2):407–A9.
- Fornell, C. and Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.
- Gaskin, D. J., Dinwiddie, G. Y., Chan, K. S., and McCleary, R. (2012). Residential segregation and disparities in health care services utilization. *Medical Care Research and Review*, 69(2):158–175.
- Hair Jr, J. F., Sarstedt, M., Ringle, C. M., and Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling*. saGe publications.
- Hlee, S., Lee, J., Yang, S.-B., and Koo, C. (2019). The moderating effect of restaurant type on hedonic versus utilitarian review evaluations. *International Journal of Hospitality Management*, 77:195–206.
- Hong, I. B. and Cha, H. S. (2013). The mediating role of consumer trust in an online merchant in

- predicting purchase intention. *International Journal of Information Management*, 33(6):927–939.
- Hsu, C.-L., Yu, L.-C., and Chang, K.-C. (2017). Exploring the effects of online customer reviews, regulatory focus, and product type on purchase intention: Perceived justice as a moderator. *Computers in Human Behavior*, 69:335–346.
- Huang, A. H., Chen, K., Yen, D. C., and Tran, T. P. (2015). A study of factors that contribute to online review helpfulness. *Computers in Human Behavior*, 48:17–27.
- Kim, D. J., Ferrin, D. L., and Rao, H. R. (2009). Trust and satisfaction, two stepping stones for successful e-commerce relationships: A longitudinal exploration. *Information systems research*, 20(2):237–257.
- Kostyra, D. S., Reiner, J., Natter, M., and Klapper, D. (2016). Decomposing the effects of online customer reviews on brand, price, and product attributes. *International Journal of Research in Marketing*, 33(1):11–26.
- Lee, R. J., Sener, I. N., Mokhtarian, P. L., and Handy, S. L. (2017). Relationships between the online and in-store shopping frequency of davis, california residents. *Transportation Research Part A: Policy and Practice*, 100:40–52.
- Liang, Y. J. (2016). Reading to make a decision or to reduce cognitive dissonance? the effect of selecting and reading online reviews from a post-decision context. *Computers in Human Behavior*, 64:463–471.
- Oghazi, P., Karlsson, S., Hellström, D., and Hjort, K. (2018). Online purchase return policy leniency and purchase decision: Mediating role of consumer trust. *Journal of Retailing and Consumer Services*, 41:190–200.
- ONeil, J. and Eisenmann, M. (2017). An examination of how source classification impacts credibility and consumer behavior. *Public relations review*, 43(2):278–292.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., and Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5):879.
- Sparks, B. A., So, K. K. F., and Bradley, G. L. (2016). Responding to negative online reviews: The effects of hotel responses on customer inferences of trust and concern. *Tourism Management*, 53:74–85.
- Visentin, M., Pizzi, G., and Pichierri, M. (2019). Fake news, real problems for brands: The impact of content truthfulness and source credibility on consumers' behavioral intentions toward the advertised brands. *Journal of Interactive Marketing*, 45:99–112.
- Zikmund, W. G., Carr, J. C., and Griffin, M. (2013). *Business Research Methods (Book Only)*. Cengage Learning.

# Why a Lending Relationship for Small and Medium Enterprises is indispensable for Economic Development of Baluchistan

Saba Khalid\*<sup>1</sup> & Nadeem Uz Zaman<sup>2</sup>

<sup>1</sup> Sardar Bahadur Khan Women's University, Quetta, Pakistan

<sup>2</sup> Balochistan University of Information and Technology, Engineering and Management Sciences, Quetta, Pakistan

---

**Abstract.** The study is deliberated to know the effects and benefits of lending relationships on Small and Medium Enterprises (SMEs) and Economic Development in Balochistan. The target population in this context is the Small and Medium Enterprises (SMEs) belonging to Balochistan mainly Quetta city. Most of the respondents are the owners or managers of SMEs working in Balochistan. Factor and Regression Analysis are applied to data to search out the major benefits and their major effects on Small and Medium Enterprises (SMEs) and their role in economic development. The analysis finds out that Small and Medium Enterprises (SMEs) are in favor of external financing, but the high-interest rates and collateral-based lending are big obstacles in their way. The literature review and analysis authenticate that Small and Medium Enterprises (SMEs) are playing a very important role in the economic development of Pakistan but there is a need for comprehensive mass awareness in Balochistan to acquaint the people to adopt the latest rules and techniques being practiced all over the world. This study is somehow limited due to peoples unawareness of the research topic, security issues, traditions, and customs of Balochistan.

**Key words:** SMEs, Benefits, Lending Relationships, Economic Development

---

## 1 Introduction

Small and Medium Enterprises (SMEs) are playing an imperative role in building the structure of an economy. But to emerge in the system they must cross a lot of hurdles. The study of [Beck et al. \(2006\)](#) reflects that these types of enterprises have many obstacles in their way to success, but they can flourish if the government supports them for the development of the country's economy.

According to [Qureshi and Herani \(2011\)](#), Small and Medium Enterprises (SMEs) are playing an essential role in Pakistan; these enterprises are very helpful in developing the economy of Pakistan.

---

\*Corresponding author.

Email: k\_zari4488@yahoo.com

## 1.1 Background of Study

Baluchistan represents about 43% of the total geographical area of Pakistan with all the natural resources. If the government puts its resources together for the development of these sectors, get benefit from these resources, the fate of the province can be changed. Let us point out that among these all opportunities the most neglected side is the SMEs or the economy of the province. This stark reality is enough mementos to understand that this province needs attention. It needs a better plan for its economic and social development. This development surely covers the Balochistans geographical and demographic peculiarities (Gazdar et al., 2007).

There are many pieces of research on the factors affecting SMEs on the national and international level. Research mainly focuses on big areas and the areas that are already developed. These studies cannot be applied in Balochistan.

SMEs are mostly working on their capitals. They are not supported by banks in terms of external financing due to their low returns. SMEs are facing many problems in taking loans, especially in terms of capital financing. OECD (2008) reports that SMEs owners that belong to rural environments facing difficulties in their access to finance from financial institutions.

On the other hand, some SMEs also have a different opinion on lending behavior. They think that the banking system or lending system is not beneficial for their business. The main issue is the collateral-based lending and interest that banks charge on their loans. While, if some SMEs by ignoring all these misconceptions, go for capital financing then they are not be supported due to their low returns.

Lean and Tucker (2000) found the contra-effects in their study about lending behavior, Formal lenders are not fully aware of the nature of small businesses and their possible positive outcomes, at the same time enterprises also does not have that much knowledge about financial institutions and their criteria of lending contracts.

This study is mainly focused on lending relationships, research that analyzes the pros and cons of lending relationships to SMEs. The theme is to make people and lending institutions learned about the benefits of this relationship. So that the enterprises that are facing difficulty in their financing needs will be helping by lending institutions.

According to Mazhar et al. (2012) Balochistan is facing many issues and the main issue is its financial matters. To resolve these issues, the government of Pakistan should keep an eye on it to build the institutions, create an improved nationalized strength leading to an energetic fresh society.

## 1.2 Problem Statement

The problem statement Why a Lending Relationship for Small and Medium Enterprises is indispensable for Economic Development of Balochistan, shows the aim of the research and the main perspective behind this research. People of Balochistan are not aware of lending behaviors and the most practiced trend is Small businesses. They face problems in their financing needs. They dont know about the benefits they can seek from lending relationships.

On the other hand, lending institutions also dont pay attention to these small businesses. As Adiningsih (2011); Ibrahim and Verliyantina (2012) said that banks mostly focus on large enterprises due to their high returns and avoid Small Enterprises due to their low returns. Banks mostly set a standard based on which these small enterprises can take loans. The standards set by the banks to take loans are such that they are non-supportive to SMEs and indirectly support big projects. The three main and general points to apply for a loan include: the enterprise

should have 40 to 60% return on investment in most of the venture conditions, the product they are launching should have unique characteristics and ability to capture the market and the enterprise should have strong management lineup to lead the business effectively and efficiently. For startups, these standards are difficult to achieve, that's why most SMEs think of loan seeking as a tough job ([Ambrose, 2012](#)).

### 1.3 Significance

SMEs are contributing to economic development all over the world. They are putting up industrial bases, increasing job opportunities, introducing new ideas and innovations and are very helpful in creating adequate resilience all over the world. These enterprises help develop original abilities, expertise, entrepreneurship and gives quality life. These help improve poverty circumstances being faced in developing countries ([Arbelaez and Milman, 2000](#); [Chachar et al., 2013](#); [Chemin, 2010](#)).

[Upadhye et al. \(2010\)](#) stated that in the private sector of Pakistan the major shareholders are SMEs, these enterprises account for almost 90% of Pakistans private sector whereas the statistics of balakrishnan2011 reveals that about 70% of the countrys labor force is working in 3 Million SMEs out of 3.2 Million total SMEs in Pakistan.

The government of Pakistan after recognizing the fact of SMEs importance has declared that the SMEs sector is one of the main representatives of economic growth in Pakistan ([Qureshi and Herani, 2011](#)). But people in Pakistan especially in Balochistan do not have much knowledge about the new thinking and behaviors that other countries are applying in this sector.

This study can widen their ideas of business by keeping in mind external financing. We believe that by applying new ideas, giving training and education to employees will improve the working of this sector. [Chachar et al. \(2013\)](#) examined that owners education is the most important factor in the growth of any organization of any size. The owners of SMEs should be trained enough with guided lines to flourish their business and innovate it with new and reliable ideas. This study will surely give an idea about the knowledge, management, collection of intellects, financial needs, benefits of lending, benefits of SMEs and their role in economic development.

Banks also have advantages in lending relationships with SMEs. This sector will give much more productivity to the financial sector if handled keenly because finance is the main need and a challenge for the microfinance sector. This study will help in widening the thinking of owners and banks and is a try to build a working relationship between them.

A flourished SME sector in an economy is the bright indicator showing that the economy is rising and developing day by day ([Bruce et al., 2009](#); [Fogel and Zapalska, 2001](#)).

## 2 Literature Review

### 2.1 Small Business

Small Businesses are usually defined with their smaller number of employees and based on production, capital investment and volume, etc. The World Banks definition describes SMEs as enterprises with possessions of approximately \$15 Million, maximum of 300 employees and yearly returns of approximately \$15 Million. Egypts definition of SME is an enterprise with 5-50 human resources, etc. ([Chowdhury et al., 2013](#)). According to the official definition of Pakistan,

there should be a maximum of 50 numbers of employees in a Small and Medium Enterprise (Gibson and Van der Vaart, 2008).

Today Small Businesses are said as the locomotives of economic development. Though flaws in the market system creating hurdles in the development of SMEs once the government realized its responsibility and made a positive interference this system will flourish very rapidly (Beck et al., 2006).

Small businesses mostly face financial crunches as they are mostly dependent upon external finances which are mainly bounded to Private debts, on a common basis whereas a quarter of their financial needs are dependent upon financial institutes (Berger and Udell, 2002). The basic source of external financing for small businesses is bank credits in the form of a loan (Mills and McCarthy, 2014). If SMEs go for lending relationships it will lead to economic development because these enterprises play the role of backbone in an economy.

Small businesses are facing some problems in their way, according to Wiersch et al. (2013) point of view, the business holders think that the issue relates to bankers and their regulators. The regulators make it complicated to get loans at the same time bankers raise their collateral requirements and have less focus on small businesses. Such credit flaws limit the small business growth (Beck et al., 2006) and make it difficult for small businesses to obtain external finance that could be costly too for them (Fazzari et al., 1987; Hubbard, 2001; Stein, 2002).

As these hurdles are making financing costs for small businesses, therefore, to manage their businesses, the business owners with already high borrowings become careful in getting more debt (Williams, 2014).

According to Chowdhury et al. (2013) estimated results about Pakistan, there are 60% SMEs working of all enterprises are contributing 15% to GDP and about 80% to the employment in Pakistan. But people of Balochistan are unaware of knowledge and innovations in SMEs, thus not supporting it as it should be. According to Gazdar et al. (2007), any development in this sector will cover up Balochistans geographical and demographic customs.

*Hypothesis 1: Economic Development through Small and Medium Enterprises leads to progressed earnings and prosperity.*

## 2.2 Financial History

Small and Medium Enterprises or Businesses are foremostly facing two types of issues related to finance and non-finance activities i.e. management issues and financial issues. As Small businesses are short of economic history, so the financial distress in these small businesses is due to the low returns that dont make banking institutions to trust them for capital financing (Adiningsih, 2011; Ibrahim and Verliyantina, 2012).

Therefore, Small businesses are mostly enforced to have beginner's investment standards but in todays challenging businesses these simple principle doesnt work properly and is not able to face the new challenges of the market (Soekarno and Damayanti, 2012). If SMEs are capitally financed, then they will be less affected by financial distress because swings in the economy have a direct effect on enterprises with low returns.

According to Hamdani and Wirawan (2012), small businesses are also legally enforced to apportion a major amount of financial resources due to corruption practices. So, whenever there is a financially hard time, the smaller firms affect more than larger firms as they significantly rely on the banks capital for their development. So, a slight swing in the economy disturbs the whole sector of small businesses (Mills and McCarthy, 2014).

The study of Chowdhury et al. (2013) reflects that in todays new perspective the SMEs and

new productions are dependent on funding that's why Capital is the biggest need. Banks and Governments should consider the needs of these enterprises, facilitate them, and organize the capital for productive intentions.

The financial bodies mostly take SMEs as risky and profitably not feasible enterprises which do not motivate an SME to seek loans (Dora et al., 2013). The survey conducted by Chowdhury et al. (2013) proves that most SMEs are in great favor of capital formation for their financing needs.

*Hypothesis 2: Capital Financing can help Small and Medium Enterprises in financial distress.*

## 2.3 Lending Relationships

Small businesses are mostly relying on lending relationships (Weston and Strahan, 1996). According to Ibrahim and Verliyantina (2012), lending is a highly complicated process if large numbers of transactions have to be managed.

Lending Relationships are particularly credit lending that is beneficial for smaller firms. In this lending the bank mostly attains the necessary information of firm and community related to it and make the decision about credit lending. Petersen and Rajan (1994) says that the required information is gained through requirements of the loan; Cole (1998); Degryse and Van Cayseele (2000); Nakamura et al. (1991) think that information is gathered through deposits and financial products. Suppliers and customers also help in gathering information about the firms over time (Berger and Udell, 2002). According to (Angelini et al., 1998; Berger and Udell, 1998; Ongena and Smith, 2000; Petersen and Rajan, 1994; Scott et al., 1999) the studies on the temporal duration i.e. amount of time in which bank is offering loan, deposit, etc, the relationship of lending influences the value and accessibility of credit. On the other hand, banks also need some sort of negotiating power to have some motivation in lending relationships (Schlierer et al., 2012).

Amel and Mach (2017) said that the provision of capital is not sufficient to encourage small businesses, so lending relationships loosen up credit limitations and thus helps in competitiveness which is the main determinant of strength and value (Petersen and Rajan, 1994). If banks somehow lose their credit limitations, then SMEs will become competitive because competitiveness is the main determinant of strength and value. Sponsored financing is helpful to develop faster, have further investment and appoint more staff (Ylhäinen, 2013).

SMEs are also facing problems in lending due to the high-interest rates of lending institutions. According to Nehman (1973), compliance of rules by rural poor and SMEs asking for loans from recognized lenders is highly influenced by high-interest rates. Finance seekers are negatively affected by high borrowing rates. These high-interest rates are not reasonable for SMEs and poor firms (Besley, 1994; Stiglitz, 1989; Stiglitz and Weiss, 1981). Syed Manzur et al. (2008) also support the above literature that SMEs avoid lending from banks due to their high-interest rates.

*Hypothesis 3: High Interest-based loans are the biggest financial challenge for Small and Medium Enterprises.*

## 2.4 Benefits

According to Berger and Udell (2002):

- A small business owner with a guarantee or pledge of personal collateral endows with strong encouragement to the lender.

- The lending Relationship lowers the cost in small businesses.
- It makes the high availability of credit to firms.
- It has resourceful information, security against credit crunches.
- It helps in protection against unspoken interest rate and credit risk insurance.
- It helps in tax benefits for dividends by replacing interest.

While [Petersen and Rajan \(1994\)](#) said that:

- Availability of financing increases lending relationships.
- Relationships should be valued by quantities not prices.
- More lenders, high prices, less credit availability so rely on fewer lenders.
- Relationships help in lowering the lenders' cost of lending.
- Relationships act as proxies in distress.
- Relationships have a small effect on prices.
- Multiple banks result in higher rates so rely on fewer relationships, it suggests lower rates. [Watanabe et al. \(2005\)](#) suggests that if the small business sector has a secure, close and extensive relationship with formal lenders then this microfinance sector can be able to cover the adverse effects they may have during their financial problems.

*Hypothesis 4: Benefits of Lending Relationships and Economic Development significantly affect the Economics of Small and Medium Enterprises.*

### 3 Methodology

This research study was exploratory. Through this research, I want to explore the relationships of SMEs to banks and their benefits and the outcomes of the developed Microfinance sector on the economic development of Balochistan, Pakistan. The research was carried out to find the working of Small and Medium Enterprises (SMEs) in Balochistan and to know about the lending relationships and their major benefits.

After identification of the problem, the most vital issue was to develop a questionnaire that is addressing all relevant issues of the area. With the consent of the supervisor, it was decided that the sample size should be at least 300 SMEs to get the real trend of results. To get filled in the questionnaire from more than 300 SMEs was a hectic job in the prevailing conditions of our province. We mostly observed that people rely on small businesses owned by them especially by Pashtoons and Balochs. There are people involved in large businesses but mostly they believe that business should be on a medium scale and within family members.

#### 3.1 Variables

SMEs and their economics are taken as dependent variables in this research while different lending benefits and the role in economic development are taken as independent variables.



## 3.2 Scale

In this research questionnaire we used was a seven-point Likert scale of Level of Agreement. We use the Likert scale because according to [Khan and Khalique \(2014\)](#) Likert scale is very helpful in collecting accurate and reliable data, especially if there is an aim of research on SMEs. The questionnaire making task was completed with the help of different articles. This research questionnaire had 11 sections. In social science research questionnaire method for data collection seems to be very suitable as it helps a lot in analyzing the respondents social characteristics, attitudes, behaviors, and beliefs regarding research ([Bulmer, 2004](#)).

## 3.3 Questionnaire Description

Table 3.1: Questionnaire Description

Section	Description
A: Demographic Information	This section is concerned with the demographic information of Respondent and his/her business
B: Economics of SMEs in Balochistan	This section is dealing with the small business' economics and its working
C: Benefits of Lending Relationships to SMEs	This section is concerned with different benefits an SME can enjoy if it goes for a lending relationship
D: Financial Challenges facing SMEs	The major financial challenges mostly SMEs are facing in Balochistan
E: Functional, Educational and Technological Challenges	The major functional, educational, and technological challenges small businesses facing according to respected respondents.
F: Policymaking Challenges	Different challenges faced by Small business in their way to policymaking.
G: Marketing Challenges	The challenges facing SMEs when going for marketing strategies for their business growth.
H: Export Challenges	Different hurdles and problems facing SMEs to expand their business across the boundary.
I: Cultural Challenges	Balochistan culture and its limitations; a challenge for SMEs
J: Strategies employed to counter the Challenges	What are the major strategies to counter all these challenges according to the respondents' point of view
K: Effects on Economic Development	The growth of the microfinance sector and small businesses and their effect on the economic development of Balochistan

Our study is particularly based on the economics of SMEs, their lending relationships, financial challenges and outcome to counter all the hurdles in the way of development of SMEs, it also to analyze the effect of better performance of SMEs on the economic development of Balochistan and Pakistan.

## 3.4 Target Population

The target population for this study is particularly SMEs working in Balochistan. Balochistan is the most neglected area by the government in the context of business and its outcomes.

The people of Balochistan mostly rely on family businesses. The residents of Balochistan have businesses for generations but they are following their family ethics and a family runs the old method of business. It is the need of time to convert these businesses according to the new global rules and make a way to the exposure of new business arena.

We distributed our questionnaire among 300 SMEs to take their views regarding our research area. From which 241 SMEs respond to our questionnaire effectively. There were few SMEs who responded generously, accepted the questionnaire open-heartedly, filled it and returned on due time. Otherwise convincing the concerned personnel that this questionnaire does not deal with their income tax or anything like this, but it is just a market survey to get the trend of SMEs in Balochistan. If we have factual and authentic figures/data, the analysis of this data will represent a true and actual trend of businesses. This data will also be very helpful for researchers to design and predict a future for the area (Feltovich et al., 2018). During our research, out of 300 targeted SMEs, only 241 responded positively and the same was used for analysis purposes.

### 3.5 Analyses/Software

For the analysis of our research data, we chose IBM SPSS Statistics 22. We subjected responded questionnaires in SPSS data file to analyze the data and its accuracy. SPSS also helped me out in applying different tests to check our hypothesis. We applied factor analysis on the data file to estimate the response and to analyze the major benefits and their outcomes to SMEs in Balochistan. In the rotated component matrix, firstly We have explained that which is explaining which items of the variables. Secondly, we took the average of loading according to factors and then rank them up following the average of loading means as applied by Syed Manzur et al. (2008) in their research. I also applied regression to check either benefit of lending relationships and economic development predicts the economics of SMEs or not.

## 4 Results

### 4.1 Factor Analysis

Factor Analysis is used to lessen the computable and noticeable variables to fewer hidden variables that have common variance in them and are unobservable (Bartholomew et al., 2011).

Yong et al. (2013) stated that unobservable factors are theoretical constructs to symbolize variables and these unobservable factors are not directly calculated.

### 4.2 Sample Size

The coefficient of correlation varies from sample to sample. The consistency of factor analysis rests on sample size. The sample size, the necessary part of factor analysis relies on many things as said by Field (2005). He examined many ideas and evaluated that in general 300 cases the sample size is a possibly satisfactory size.

### 4.3 Data Screening

The uni-variate outliers monitored this research data. The outliers of this research were altered. There were no missing values in this research data. The satisfied value from data for

Table 3.2: Respondents

	<b>Respondents</b>
<b>Gender</b>	11 females and 230 males
<b>Ethnicity</b>	131 Pathan, 70 Punjabi/Mahajir, 30 Balochs, 9 Hazara and 1 Sindhi.
<b>Education</b>	43 matriculate, 53 intermediates, 79 with a bachelor's degree, 53 MS/M-Phil and only 1 Ph.D.
<b>Organizational Position</b>	85 were CEO while 156 were Managers of SMEs.
<b>Expertise</b>	134 were experts in their jobs; 84 were mediocre while 23 were learners.
<b>Social Status</b>	6 respondents' mark their social status as poor, 167 belongs to the middle class while 68 was rich.
<b>Religion</b>	231 Muslims, 7 Christians and 3 Hindus.
<b>Firm Traded</b>	133 respondents told that their firm was trading from 1-10 years, 66 said 10-20 years, 21 said 20-30 years and 21 SMEs were working in the market for 30 years and above.
<b>Finance Seek</b>	91 SMEs seek 100,000 (1Million finance), 60 SMEs 1-2 Million, 31 seek 3-4 Million and 59 SMEs seek 4 Million and above finance.
<b>Generation</b>	142 SMEs were under the control of family within one generation, 82 SMEs were in the market from two generations while 17 SMEs were working in Balochistan from three generations.
<b>Change of Ownership</b>	In 62 SMEs change of ownership took place during the past 3 years.
<b>Exporting</b>	121 SMEs were exporting their commodities to outside Quetta.
<b>Tried for Finance</b>	Among 241 SMEs, 107 SMEs tried for finance in the last 12 months.
<b>Finance (Other Sources)</b>	100 SMEs eventually go to obtain finance from other sources.

factor analysis is based on 241 final respondents who responded to each variable effectively with a different case.

#### 4.4 Preliminary Analysis

The factorability of 93 cases was analyzed initially. For the factorability of correlation, different well-recognized measures were applied to analyze the data.

#### 4.5 KMO and Bartlett's Test

Factor Analysis produces different and reliable factors if a value close to 1 appears. Here the output of KMO shows a value of 0.784 which means that the factors are good (Appendix-B, Table-B1). Kaiser (1974) after his recommendations tells that value of KMO greater than 0.5 is satisfactory. Hutcheson and Sofroniou (1999) suggest that values of KMO from 0.5 to 0.7 are average, from 0.7 to 0.8 are good, from 0.8 to 0.9 are great, and above 0.9 are outstanding. While Bartlett's test of sphericity is significant ( $2(4278) = 30400.308, p < .05$ ) and therefore factor analysis is applicable.

#### 4.6 Factor Extraction

Table of communalities before and after extraction is showing. Principal component analysis analyzes the initial hypothesis that all variance is common, so before extraction, all communalities are equal to 1. While the second column of extraction shows the common variance. In E-1



BLR_2	0.741									0.815
BLR_3	0.712									0.775
BLR_4	0.772									0.797
BLR_5	0.679									0.795
BLR_6	0.797									0.799
BLR_7	0.804									0.775
BLR_8	0.784									0.797
BLR_9	0.785									0.696
BLR_10	0.759									0.769
BLR_11	0.76									0.804
BLR_12	0.765									0.752
BLR_13	0.856									0.821
BLR_14	0.821									0.763
BLR_15	0.787									0.778
BLR_16	0.824									0.81
BLR_17	0.792									0.727
BLR_18	0.737									0.852
BLR_19	0.819									0.817
BLR_20	0.796									0.673
BLR_21	0.837									0.817
BLR_22	0.817									0.739
BLR_23	0.799									0.77
FC_1						0.693				0.752
FC_2						0.721				0.81
FC_3						0.819				0.809
FC_4						0.827				0.833
FC_5						0.831				0.786
FC_6						0.872				0.847
FC_7						0.856				0.821
FC_8						0.843				0.819
FC_9						0.797				0.805
FC_10						0.78				0.734
FETC_1			0.895							0.862
FETC_2			0.901							0.897
FETC_3			0.875							0.877
FETC_4			0.854							0.782
FETC_5			0.864							0.826
FETC_6			0.868							0.797
FETC_7			0.888							0.854
FETC_8			0.815							0.827
FETC_9			0.87							0.874
FETC_10			0.818							0.769
PC_1				0.81						0.853
PC_2				0.801						0.881
PC_3				0.8						0.795
PC_4				0.807						0.854
PC_5				0.8						0.844
MC_1				0.78						0.784
MC_2				0.708						0.885

MC_3				0.833						0.851
MC_4				0.816						0.841
MC_5				0.785						0.731
EC_1							0.789			0.885
EC_2							0.772			0.857
EC_3							0.827			0.895
EC_4							0.836			0.88
EC_5							0.824			0.837
CC_1								0.773		0.835
CC_2								0.815		0.88
CC_3								0.842		0.826
CC_4								0.836		0.812
CC_5								0.779		0.797
SE_1				0.769						0.808
SE_2				0.831						0.87
SE_3				0.803						0.829
SE_4				0.759						0.818
SE_5				0.768						0.797
SE_6				0.794						0.832
SE_7				0.831						0.756
SE_8				0.823						0.798
SE_9				0.853						0.839
SE_10				0.732						0.767
ED_1							0.738			0.825
ED_2							0.767			0.823
ED_3							0.834			0.916
ED_4							0.788			0.894
ED_5							0.795			0.883

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 9 iterations.

After Varimax with Kaiser Normalization Rotation method, this matrix shows which factor explains the variables of which category (Appendix-B, Table-B5), for example, factor 1 has positive correlations with all 23 variables of BLR category and thus explains the whole category.

The matrix given below is explaining the factors applied in this research and the loading means of each item related to this study.

Table 4.4: Factor Rotation of this research variables

	Component			
	1	2	6	8
The business should be externally financed		0.811		
The business should be internally financed		0.733		
The government encourages the growth of SMEs		0.74		
Competition is the biggest obstacle		0.783		
Obtain finance for the needs of working		0.78		
A bank loan is the type of finance you failed to obtain		0.818		
Govt. considers the concerns of SMEs		0.775		
Govt. of Balochistan considers the concerns of SMEs		0.795		

Bank credit is easily understandable	0.711	
Lowers the cost	0.741	
High availability of credit	0.712	
Security against credit crunches	0.772	
Protects against unspoken interest and credit risk insurance	0.679	
Helps in tax benefits	0.797	
Availability of financing increases	0.804	
Relationships should be valued by quantities not by prices	0.784	
Lowers the lenders' cost	0.785	
Proxy in distress	0.759	
Small effect on prices	0.76	
Rely on fewer lenders	0.765	
Responsiveness of banks	0.856	
High-interest rates on SMEs	0.821	
Long-term credits	0.787	
Good projects	0.824	
Large enterprises have more benefits	0.792	
Mutual guarantee/societies/ funds are helpful for SMEs	0.737	
Collateral lenders are encouraged	0.819	
Fewer relationships, lower rates	0.796	
Low returns of SMEs should not be considered	0.837	
Crisis	0.817	
Slight swings in the economy	0.799	
Insufficient capital		0.693
Collateral based lending		0.831
Interest on bank loan		0.872
A cumbersome and lengthy process of lending		0.843
Preference for large scale enterprises		0.797
Enhanced productivity		0.738
Increased employment		0.767
Improved income		0.834
Reduced poverty		0.788
Investment in family health and education		0.795

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 9 iterations.

This matrix shows the loading means of each factor calculated with the help of a rotated matrix. (Quader & Abdullah, 2008)

This matrix shows the ranking of factors according to loading Means calculated.

An important and major point that validates this study is its binding constraints. All the binding constraints are explained by 9 major factors. The main point here to focus is that all the values we have got are on our binding constraints.

## 4.9 Regression Analysis

A multiple Regression test was applied to the data to analyze if the benefits of lending relationships (Tot.BLR) and economic development (Tot.ED) predicts the Economics of Small and Medium Enterprises (Tot.E).

Table 4.3: Factors Explaining Variables

<b>Factors</b>	<b>Variables Under Factors</b>
Factor 1: Benefits of Lending Relationships	BLR 1-23
Factor 2: Economics of SMEs	E 1-15
Factor 3: Functional, Educational, Technological Challenges	FETC 1-10
Factor 4: Policymaking and Marketing Challenges	PC 1-5 + MC 1- 5
Factor 5: Strategies Employed	SE 1-10
Factor 6: Financial Challenges	FC 1-10
Factor 7: Export Challenges	EC 1-5
Factor 8: Economic Development	ED 1-5
Factor 9: Cultural Challenges	CC 1-5

Table 4.5: Loading Means of factors

<b>Factors</b>	<b>Loading Mean</b>
1: Benefits of Lending Relationships	0.7806
2: Economics of SMEs	0.7655
3: Functional, Educational, Technological Challenges	0.8648
4: Policymaking and Marketing Challenges	0.794
5: Strategies Employed	0.7963
6: Financial Challenges	0.8039
7: Export Challenges	0.8096
8: Economic Development	0.7844
9: Cultural Challenges	0.809

#### 4.10 Model Summary

Enter method is used in the analysis and it shows that Benefits of lending Relationships (Tot.BLR) and Economic Development (Tot.ED) explains a significant amount of variance of Economics of Small and Medium Enterprises (Tot.E) ( $F(2, 237) = 58.873, p < .05, R^2 = .58, R^2_{Adjusted} = .33$ ).



Table 4.6: The rank of factors according to Loading Means

Ranks according to Mean	Factors
1	Functional, Educational, Technological Challenges
2	Export Challenges
3	Cultural Challenges
4	Financial Challenges
5	Strategies Employed
6	Policymaking and Marketing Challenges
7	Economic Development
8	Benefits of Lending Relationships
9	Economics of SMEs

#### 4.11 Coefficients

The Regression analysis illustrates that both, benefits of lending relationships (Tot.BLR) and economic development (Tot.ED) significantly predicts the value of Economics of Small and Medium Enterprises (Tot.E); (Beta = .22,  $t(239) = 2.45$ ,  $p < .05$ ), (Beta = .322,  $t(239) = 9.741$ ,  $p < .05$ ).

#### 4.12 Collinearity

Collinearity tests are applied to check if the data is meeting the supposition of Collinearity, the results by SPSS suggests that multi-Collinearity was not a problem in this data file (Tot.ED, Tolerance = .95, VIF = 1.054; Tot.BLR, Tolerance = .95, VIF = 1.05).

#### 4.13 P-P Plot of Standardized Residuals

The P-P plot of standardized residuals indicated that data is approximately normally distributed. The points showed were almost completely on the line or we can say that closest to the line.

#### 4.14 Scatterplot of Standardized Predicted Values

The scatterplot of standardized residuals or predicted values illustrates that the data is meeting all the postulations of homogeneity of variance and linearity.

#### 4.15 Independent Errors

The Durbin Watson = 1.74, which showed that the data is meeting the postulations of independent errors.

## 5 Discussion

The basic focus of the study is to analyze the benefits that an SME can have if it goes for a credit lending relationship. We have 241 respondents for our research whose response shows that our factor analysis is performed on reliable factors.

KMO and Bartlett's test shows that values are good and significant. The table of communalities shows that in each section we have a different percentage of common variance. The results show that most people think that the problem in cash flow occurs due to late payment. It disturbs the smooth process of business which indirectly disturbs the economics of SMEs.

The results also suggest that the SMEs in Balochistan are mostly funded by Mutual guarantee associations/societies for their financing needs. We can see from our results that small business owners with a guarantee or pledge of personal collateral endow with strong encouragement to lending institutions, also called Collateral based lending. Qureshi and Herani (2011) recommend that due to these heavy collateral needs of banks and lending institutions; the SMEs do not go for it.

The main financial challenge the SMEs of Balochistan are facing is interest on bank loans. As it is not appropriate in the teachings of Islam, so this is the biggest obstacle in applying for a loan from banks. High-interest rates also result in avoidance by SMEs to lending from banks (Syed Manzur et al., 2008). High-interest rates affect the willingness of small and poor enterprises to seek loans from lending institutions (Nehman, 1973).

Thus, the hypothesis is proved that Interest on the bank loan is one of the biggest financial challenge facing SMEs.

The findings tell us that high credit limitations stop Small firms to deal with lending institutions. This resistance from lending institutions results in financial distress to the firm. Any enterprise that is not surviving financially is not competing in the market. It lowers the value and strength of the firm. So, respondents agreed on the point that credit limitations should be somewhat less strict so that the firms that need finance in any situation can look up for the lending institutions to be competitive.

An easy way to financial resources can play a vital role in the growth of the microfinance sector (Rocha, 2012). The lending process is very lengthy and strict especially in the case of capital financing. The analysis describes that capital financing will cover SMEs and the economy from financial distress. If banks somewhat relax their rules on capital financing and consider Small businesses in this perspective then this will be good for Balochistan and its productivity. The positive correlation shows that bank credits to SMEs help in flourishing the economy of the state.

This result of analysis proves the hypothesis that Capital Financing can help Small and Medium Enterprises in financial distress.

The rotated component matrix explains from its calculations that external financing is much better than internal financing and it is most difficult to obtain bank loans in Balochistan.

According to benefits, the results suggest that lending relationships lead to increases in the availability of finance needed. It also suggests that lending relationships make banks responsive towards SMEs especially if it is a good project and described carefully and deliberately to banks. SMEs with guarantees or pledges are more attractive in the eyes of lending banks; Banks feel secure especially in the situation of any financial distress. The analysis shows that SMEs facing problems in lending behaviors so this behavior should be avoided especially if lenders consider the low returns but not the abilities and prospects of the business.

The regression analysis finds significant results. The regression analysis according to respondents view describes that the economics of small and medium businesses sector will be significantly affected by the benefits that an organization may have in a lending relationship and the economic development. Weston and Strahan (1996) stated that small enterprises are mostly based on lending relationships. So, firms do have benefits in this relationship and these benefits will have a better effect on the economics of the small business sector.

The finding in this section proves the hypothesis that Benefits of lending relationships and Economic Development significantly affect Economics of SMEs.

People of Balochistan mostly deal in Small business on their family level. They think that if Small Business flourishes and they have solutions to their financial problems then it will have a greater outcome especially in terms of income, prosperity, education, and quality of life.

If we analyze the effect of SMEs on the economic development of Balochistan, then respondents highly responded that SMEs of Balochistan playing a vital role in development. These types Of SMEs improved the income of residents of Balochistan. As income is the basis for all the happenings of everyday life. Better the income better the lifestyle. It helps in reducing the poverty in Balochistan. So, SMEs improved the prosperity and quality of life of people in this area. Now people are paying attention to the education and health factors of their families. They invest in education and health to give their families a better and prosperous life.

Thus, the hypothesis is proved that Economic Development through SMEs leads to progressed earnings and prosperity. [Ahmad et al. \(2009\)](#); [Qureshi and Herani \(2011\)](#); [Raziq and Shaikh \(2015\)](#) said that government is not as supportive of SMEs as it should be. This negligence of government suffers SMEs, and the small businesses become less competitive. The government, especially in Balochistan, should take into account the needs of small enterprises to make them more competitive and to promote the small business sector that will surely promote prosperity.

## 5.1 Conclusion

The main purpose of this research is to analyze the benefits an SME can get from lending relationships in the area of Balochistan. People in this area are not aware of these lending behaviors. The objective is to determine the benefits related to lending and analyze that SMEs are playing a vital role in the development of Balochistan. The data collection was not an easy task. The targeted area of this research was different SMEs working in Balochistan area and to know their opinions regarding this research. The questionnaire is designed to get the opinions of people regarding this research. More than 300 questionnaires were distributed, among which 241 respondents responded effectively.

The response from 241 respondents helped greatly in research analysis and to test the hypothesis I created for our research. The whole data was calculated in SPSS by applying different tests to get the results of our research. The factor analysis shows that the factors applied in research are reliable and calculate good results of research. The results show that owners of SMEs want to be financed externally but they face difficulty in lending from banks because of their low returns. Banks thought that capital financing to SMEs is not in favor of the banking system because of their low returns. Due to this behavior banks are not considering the positive side of SMEs. The new firms are facing many problems in their way to loan taking process. Most of these young firms are not able to take the full amount they needed. Sometimes it happens that even a part of their financial needs is considered because lending institutions do not take their needs seriously. So, there is no or very little opportunity for younger firms to seek grants, loans, or capital finance ([Baldock and Whittam, 2008](#)).

According to the study done by [Fraser \(2005\)](#) about 10% of new-comer enterprises facing the biggest challenge in accessing a loan in which 19% entertain with less than the amount they needed, 11% face direct rejection being a new-comer and approximately 8% undergo discouragement form of a loan.

SMEs can play a vital role in the development of the area as it increases productivity, Income of people automatically reducing the poverty and enhancing the people to live a better and educated life. This study will help different SMEs in understanding the benefits they may have in a lending relationship. It will also help banks to be assured that lending to SMEs is beneficial for banks. This research also makes an opinion that SMEs are now important for economic development.

The microfinance sector can lead to the best of development if managed carefully. Small businesses create many opportunities for newcomers and reduce the main problem of Balochistan. The development of SMEs in Provinces will have a direct impact on the economy of Pakistan also especially in the unemployment Microfinance sector results in much more employment chances than the macrofinance sector ([Jamali et al., 2010](#)).

## 5.2 Limitations

- This study is particularly done in Balochistan; this can be applied in the areas where people have the same lifestyle and beliefs. But this is a vast topic and needs much more research and opinions to give it a better direction.
- As this is an exploratory study so it needs much more time to be more authentic and effective for the readers.
- The respondents response was not up to the mark. Most of them think that it is some sort of income tax investigation. We need much more awareness about the research perspectives.
- This was somehow limited study due to peoples response, security issues and some traditions followed in the area. Many regions of this area are not aware of research elements so we cannot collect data from the whole of Balochistan but only from different areas.

## 5.3 Future Directions

Some directions for future researchers are as follows:

- This study is focused on very few benefits; there will be many more new thoughts that should be researched out.
- This research is conducted in areas of Balochistan, as Balochistan is a vast area so there should be a vast and comprehensive study. Many regions that are un-responded in this research may have different opinions.
- The focused point is the benefits of lending relationships, there are other benefits too apart from lending relationships that will be helpful in business processes.
- As this is the first study on Small and Medium Enterprises of Balochistan, so there is much more to research out about the business dealings in Balochistan.

## 5.4 Recommendations

Some recommendations are suggested with the help of previous studies and research to counter the problems that Small and Medium Enterprises are facing:

- Community Driven Development (CDD) is a program to initiate the development process and to manage the decision-making and taking rights, development procedures and resources of different sectors. It manages the rights of each sector and keeps an eye on all the functions in that sector. It will be very helpful in the microfinance sector as suggested by [Dongier et al. \(2003\)](#).
- Small and Medium Manufacturing Industry (SMMI) is a good initiative to remove the financial problems of the Microfinance sector as suggested.. He recommends that SMMI will attract the investors to invest on a small level but have high returns later. This will surely create a good impression of SMEs in the eyes of other sectors plus lending institutions.
- Community Development Financial Institutions (CDFIs) is also a good effort. Its focus is to minimize the difference of capital demanded by small and large firms. Though it is a struggling situation, it will be a successful institution if they follow their rules honestly as recommended by [Raleigh \(2014\)](#).
- [Sapienza \(2002\)](#) recommends that if the dropping effect of small firms by large firms is a cover-up by other financial institutions then there will be a great development of the microfinance sector and small firms will surely make their way into the local market.

- Knowledge Management (KM) is now becoming a mainstream source for an organization in its way to success. In this perspective size and geographical conditions of an organization do not matter, but only the collection of intellects and its management is important (Okunoye and Karsten, 2002). Wong (2005) said that the studies on KM are not considering the SMEs' specific characteristics, the studies mostly rely on large enterprises. But KM should be studied from the perspectives of SMEs as this sector has mainstream in economic development. Frey and Jegen (2001) emphasized the fact that KM is equally important for SMEs to collect their intellects and enhance their abilities in this sector.
- If financing institutions focus on relationships rather high returns of large enterprises then development will surely occur. If lending institutions deal on an equal level with both the microfinance and the macrofinance sector according to their needs then both sectors will play a great role in local market and economic development as recommended by Berger and Udell (2002).

There is a need for these all programs to be established in different areas of whole Pakistan and especially in Balochistan to manage the problems faced by SMEs. These programs will help in the appraisal of the economic development of not only Balochistan but Pakistan as well.

## References

- Adiningsih, S. (2011). Regulasi dalam revitalisasi usaha kecil dan menengah di Indonesia. Dalam [http://journal.uin.ac.id/index.php/inovasi\_kewirausahaan/article/view/2829/2583].
- Ahmad, A., Mazhar, M. I., and Van Voorthuysen, E. (2009). Strengthening smes through rapid prototyping to meet future challenges-why & how? In *Proceedings of the 14th Cambridge International Manufacturing Symposium on Configuring manufacturing value chains-Responding to an uncertain world*. Institute for Manufacturing, University of Cambridge.
- Ambrose, J. (2012). Venture capital (vc): The all important msmes financing strategy under neglect in Kenya. *International journal of business and social science*, 3(21).
- Amel, D. and Mach, T. (2017). The impact of the small business lending fund on community bank lending to small businesses. *Economic Notes: Review of Banking, Finance and Monetary Economics*, 46(2):307–328.
- Angelini, P., Di Salvo, R., and Ferri, G. (1998). Availability and cost of credit for small businesses: customer relationships and credit cooperatives. *Journal of Banking & Finance*, 22(6-8):925–954.
- Arbelaez, H. and Milman, C. (2000). The new business environment of Latin America and the Caribbean. *International Journal of Public Administration*, 23(5-8):553–562.
- Baldock, R. and Whittam, G. (2008). Smes access to finance: Is there still a debt finance gap? *Institute for Small Business & Entrepreneurship*.-Belfast, N. Ireland, pages 1–19.
- Bartholomew, D. J., Knott, M., and Moustaki, I. (2011). *Latent variable models and factor analysis: A unified approach*, volume 904. John Wiley & Sons.
- Beck, T., Demirgüç-Kunt, A., and Levine, R. (2006). Bank supervision and corruption in lending. *Journal of Monetary Economics*, 53(8):2131–2163.
- Berger, A. N. and Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking & Finance*, 22(6-8):613–673.
- Berger, A. N. and Udell, G. F. (2002). Small business credit availability and relationship lending: The importance of bank organisational structure. *The Economic Journal*, 112(477):F32–F53.
- Besley, T. (1994). How do market failures justify interventions in rural credit markets? *The World Bank Research Observer*, 9(1):27–47.
- Bruce, D., Deskins, J. A., Hill, B. C., and Rork, J. C. (2009). (small) business activity and state economic growth: does size matter? *Regional Studies*, 43(2):229–245.

- Bulmer, M. (2004). *Questionnaires*. SAGE Publications Limited.
- Chachar, A. A., De Vita, C. F., Parveen, S., and Chachar, Z. A. (2013). The impact of cultural factors on the growth of small and medium enterprises in hyderabad, sindh. *International Journal of Science and Research*, 2(1):83–86.
- Chemin, M. (2010). Entrepreneurship in pakistan: government policy on smes, environment for entrepreneurship, internationalisation of entrepreneurs and smes. *International journal of business and globalisation*, 5(3):238–247.
- Chowdhury, M. S. A., Azam, M. K. G., and Islam, S. (2013). Problems and prospects of sme financing in bangladesh. *Asian Business Review*, 2(2):109–116.
- Cole, R. A. (1998). The importance of relationships to the availability of credit. *Journal of Banking & Finance*, 22(6-8):959–977.
- Degryse, H. and Van Cayseele, P. (2000). Relationship lending within a bank-based system: Evidence from european small business data. *Journal of financial Intermediation*, 9(1):90–109.
- Dongier, P., Van Domelen, J., Ostrom, E., Ryan, A., Wakeman, W., Bebbington, A., Alkire, S., Esmail, T., and Polski, M. (2003). Community driven development. *World Bank Poverty Reduction Strategy Paper*, (1).
- Dora, M., Kumar, M., Van Goubergen, D., Molnar, A., and Gellynck, X. (2013). Operational performance and critical success factors of lean manufacturing in european food processing smes. *Trends in food science & technology*, 31(2):156–164.
- Fazzari, S., Hubbard, R. G., and Petersen, B. C. (1987). Financing constraints and corporate investment. Technical report, National Bureau of Economic Research.
- Feltovich, P. J., Prietula, M. J., and Ericsson, K. A. (2018). Studies of expertise from psychological perspectives: Historical foundations and recurrent themes.
- Field, A. P. (2005). Is the meta-analysis of correlation coefficients accurate when population correlations vary? *Psychological methods*, 10(4):444.
- Fogel, G. and Zapalska, A. (2001). A comparison of small and medium-size enterprise development in central and eastern europe. *Comparative Economic Studies*, 43(3):35–68.
- Fraser, S. (2005). *Finance for small and medium-sized enterprises: A report on the 2004 UK survey of SME finances*. DTI.
- Frey, B. S. and Jegen, R. (2001). Motivation crowding theory. *Journal of economic surveys*, 15(5):589–611.
- Gazdar, H., Budhani, S. J., Mallah, H. B., and Khan, N. M. I. (2007). Balochistan economic report background paper on social structures and migration. *TA4757-Pak: Balochistan Economic Report, Collective for Social Science Research173-I Block*, 2.
- Gibson, T. and Van der Vaart, H. (2008). Defining smes: A less imperfect way of defining small and medium enterprises in developing countries.
- Hamdani, J. and Wirawan, C. (2012). Open innovation implementation to sustain indonesian smes. *Procedia Economics and Finance*, 4(1):223–233.
- Hubbard, R. G. (2001). Capital-market imperfections, investment, and the monetary transmission mechanism. In *Investing today for the world of tomorrow*, pages 165–194. Springer.
- Hutcheson, G. D. and Sofroniou, N. (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*. Sage.
- Ibrahim, N. and Verliyantina, V. (2012). The model of crowd-sourced microfinancing to support small and micro businesses in indonesia through interactive site.
- Jamali, S. K., Anka, D. L. M., and Khooharo, A. A. (2010). An evaluation of small and medium enterprises development in pakistan. *OIDA International Journal of Sustainable Development*, 2(1):43–50.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1):31–36.

- Khan, M. and Khaliq, M. (2014). Strategic planning and reality of external environment of organizations in contemporary business environments. *Business Management and Strategy*, 5(2).
- Lean, J. and Tucker, J. (2000). Information asymmetry and small firm finance. In *NATIONAL SMALL FIRMS POLICY AND RESEARCH CONFERENCE*, volume 1, pages 629–648. Leeds; ISBA; 1997.
- Mazhar, M. S., Javaid, U., and Goraya, N. S. (2012). Balochistan (from strategic significance to us involvement). *Journal of Political Studies*, 19(1).
- Mills, K. and McCarthy, B. (2014). The state of small business lending: Credit access during the recovery and how technology may change the game. *Harvard Business School General Management Unit Working Paper*, (15-004).
- Nakamura, L. I. et al. (1991). Commercial bank information: Implications for the structure of banking. Technical report, Federal Reserve Bank of Philadelphia.
- Nehman, G. I. (1973). *Small farmer credit use in a depressed community of Sao Paulo, Brazil*. PhD thesis, The Ohio State University.
- Okunoye, A. and Karsten, H. (2002). Where the global needs the local: variation in enablers in the knowledge management process. *Journal of Global Information Technology Management*, 5(3):12–31.
- Ongena, S. and Smith, D. C. (2000). Bank relationships: a review. *Performance of financial institutions: Efficiency, innovation, regulation*, 221.
- Petersen, M. A. and Rajan, R. G. (1994). The benefits of lending relationships: Evidence from small business data. *The journal of finance*, 49(1):3–37.
- Qureshi, J. and Herani, G. M. (2011). The role of small and medium-size enterprises (smes) in the socio-economic stability of karachi.
- Raleigh, G. G. (2014). Automated device provisioning and activation. US Patent 8,839,388.
- Raziq, A. and Shaikh, A. A. (2015). Exploring recruitment & selection practices in pakistani smes. *International Journal of Basic and Applied Sciences*, 4(1):102.
- Rocha, E. A. G. (2012). The impact of the business environment on the size of the micro, small and medium enterprise sector; preliminary findings from a cross-country comparison. *Procedia Economics and Finance*, 4:335–349.
- Sapienza, P. (2002). The effects of banking mergers on loan contracts. *The Journal of finance*, 57(1):329–367.
- Schlierer, H.-J., Werner, A., Signori, S., Garriga, E., von Weltzien Hoivik, H., Van Rossem, A., and Fassin, Y. (2012). How do european sme owner-managers make sense of stakeholder management?: Insights from a cross-national study. *Journal of Business Ethics*, 109(1):39–51.
- Scott, J. A., Dunkelberg, W. C., et al. (1999). Bank consolidation and small business lending: A small firm perspective. In *Federal Reserve Bank of Chicago Proceedings*, number 760.
- Soekarno, S. and Damayanti, S. M. (2012). Asset allocation based investment strategy to improve profitability and sustainability of the smes. *Procedia Economics and Finance*, 4:177–192.
- Stein, J. C. (2002). Information production and capital allocation: Decentralized versus hierarchical firms. *The journal of finance*, 57(5):1891–1921.
- Stiglitz, J. E. (1989). Financial markets and development. *Oxford Review of Economic Policy*, 5(4):55–68.
- Stiglitz, J. E. and Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American economic review*, 71(3):393–410.
- Syed Manzur, Q. et al. (2008). Constraints to smes: A rotated factor analysis approach.
- Upadhye, N., Deshmukh, S., and Garg, S. (2010). Lean manufacturing in biscuit manufacturing plant: a case. *International Journal of Advanced Operations Management*, 2(1-2):108–139.
- Watanabe, W. et al. (2005). How are loans by their main bank priced? bank effects, information and non-price terms of contract. Technical report.
- Weston, J. and Strahan, P. E. (1996). Small business lending and bank consolidation: Is there cause for concern? *Current issues in Economics and Finance*, 2(3).

- Wiersch, A. M., Shane, S., et al. (2013). Why small business lending isn't what it used to be. *Economic Commentary*, (2013-10).
- Williams, V. (2014). Small business lending in the united states 2013. *Office of Advocacy, US Small Business Administration, Washington, DC, December. oans in M.*
- Wong, K. Y. (2005). Critical success factors for implementing knowledge management in small and medium enterprises. *Industrial management & Data systems*.
- Ylhäinen, I. (2013). Essays on the economics of small business finance. *Jyväskylä studies in business and economics*, (127).
- Yong, A. G., Pearce, S., et al. (2013). A beginners guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in quantitative methods for psychology*, 9(2):79–94.



# Moderation by Job Satisfaction on the Relationship between Emotional Intelligence and Workplace Advice Network Coreness

Madiha Zaman<sup>\*1</sup>, Abdul Naeem<sup>2</sup>, Hadi Hasan Khan<sup>3</sup>, Manzoor Ali Brohi<sup>4</sup> & Nadeem Uz Zaman<sup>5</sup>

<sup>1</sup> SBK Women university, Quetta, Baluchistan, Pakistan

<sup>2</sup> Institute of Management Sciences, University of Balochistan, Quetta, Pakistan

<sup>3,4,5</sup> Balochistan University of Information Technology, Engineering and Management Sciences, Quetta, Pakistan

---

**Abstract.** The current study deliberated to figure out the effect of job satisfaction as moderator between emotional intelligence and coreness of advice network of employees of organization. The results show enhancing effect of job satisfaction on relationship between emotional intelligence and coreness of advice network. It is concluded that as job satisfaction of employee increases the emotional intelligence also increases which increases the coreness of employee in advice network.

---

## 1 Introduction

### 1.1 Background of study

Human resource management is a vital part of management process of organization. The organizations which are well managed value their employees more than capital investment and consider their employees as root cause of their success (Tella et al., 2007). In order to understand human resource management, studies of elements which affect the efficiency of their job performance of employees is necessary.

Emotional intelligence and job satisfaction are those variables which have been studied for long time. Emotional intelligence and job satisfaction have been studied with many different variables. The study of effect of job satisfaction as moderator on relationship between emotional intelligence is relatively less explored. Emotional intelligence is considered as the aptitude in which one can have power over and be aware of his or her emotions and feelings and can distinguish among them (Salovey and Mayer, 1990). Emotional intelligent employees are more satisfied with their job. Emotional intelligence is a significant variable which recognizes the job satisfaction of employee of any organization (Daus and Ashkanasy, 2005). The theory of emotional intelligence asserts that any emotional intelligent person has superior communication and relation within the organization which results in increase of job satisfaction (Wong and Law, 2002).

---

\*Corresponding author.

Email: madu\_freind@yahoo.com

Emotional intelligence, job satisfaction and advice network are of concern in the field of human resource management. And modern studies investigated these variables with different variables, but this study is of new sort because it illustrates the new relation of these variables.

## 1.2 Significance

Its the less explored type of analysis of job satisfaction and emotional intelligence in the field of organization behavior and human resource management. This study has created the new connection in the emotional intelligence and coreness of advice network. The main objective of this research is to analyze the effect of job satisfaction as moderator between relationship of emotional intelligence and coreness of advice network.

## 2 Literature Review

### 2.1 Emotional Intelligence

Emotional intelligence is defined as the power to comprehend and elucidate the emotion and to improve the emotional thought (Mayer and Caruso, 2002). Emotions are mostly refers to feeling like fear happiness, sadness, stress, etc., which give the information about the relations, whereas intelligence is capability to do reasoning, identify different patterns and evaluate and diverge (Mayer and Caruso, 2002). It is also the ability of controlling and understanding his / her feelings and differentiating among them (Salovey and Mayer, 1990).

### 2.2 Different Concept of Emotional Intelligence

According to theory of emotional intelligence, the emotionally intelligent person is one who can comprehend his own feelings and can control all negative emotions (Kafetsios and Zampetakis, 2008). Emotionally intelligent person can control his all emotions which can affect his job and job satisfaction; many researchers claim that emotional intelligence is considered as important competency for any job (Cherniss, 2000). Whereas many believe that emotional intelligence is not science (Matthews et al., 2004), and considered it as trait (Schulze and Roberts, 2005). Emotional intelligence is considered in many organization as more important than IQ for job satisfaction (Goleman, 1998), but some researchers believe that emotional intelligence trait and emotional intelligence ability are different because of their way of measurement (Schulze and Roberts, 2005). Many organizations consider employee with high emotional intelligence as valuable asset of organization (Carmeli, 2003), and provide such workplace environment which is best for advancement of this trait (Cherniss, 2000).

### 2.3 Emotional Intelligence Association with Other Concepts

Emotional intelligence is one of those variables which has been researched for many years and has been studied with relation to many different variables. Aghdasi et al. (2011) studied emotional intelligence effects on occupational stress and job satisfaction. Mathieu and Zajac (1990) analyzed that EI has positive relation with employees motivation, job performance and satisfaction, whereas negative relation with turnover, absenteeism and stress. Abraham (2000)

and [Güteryüz et al. \(2008\)](#) analyzed the relation of EI with organizational commitment. Emotional intelligence has always been interrelated to job satisfaction, directly or indirectly, which illustrates that emotional intelligence and job satisfaction have immense effect on each other.

## 2.4 Job Satisfaction

[Beer \(1964\)](#) defined job satisfaction as a positive feeling or way of thinking of employees with respect to their organization, colleagues and other physiological factors that are related to their jobs. Whereas [Locke et al. \(1976\)](#) believe that job satisfaction is a gratifying or optimistic emotional state consequential from the judgment of ones job experiences. It can be the emotional state when employee or ones expectations are fulfilled with respect to their job ([Jorfi and Jorfi, 2011](#)). Thus job satisfaction is an emotional intelligence characteristic which refers to the degree to which one being fond of his /her work ([Spector, 1997](#)) or may be an emotional affection toward ones own job ([Tett and Meyer, 1993](#)). If one is an emotionally intelligent person then he/she is more satisfied than the other employees of organization.

## 2.5 Job Satisfaction Association with Other Concepts

Job satisfaction has been associated to many different concepts. Job satisfaction is more often researched variable in organizational behavior ([Spector, 1997](#)). [Jones et al. \(2009\)](#) discovered a positive association between training and job satisfaction. [Kosteas \(2011\)](#) identified that job satisfaction increases with promotion. [Köse \(1985\)](#) established a significant relationship among age and job satisfaction. Older people are more satisfied with their jobs than younger ones ([Davis, 1988](#)) and thus are more emotionally intelligent than their younger counterparts.

Job satisfaction also has relation with professional status the higher the professional status the higher the job satisfaction ([Tella et al., 2007](#)). From these studies we can conclude that as the age increases the promotion chances also increases and as a result professional status and salary also increases which increases job satisfaction.

## 2.6 Emotional Intelligence and Job Satisfaction

Job satisfaction and emotional intelligence are two important concepts of job atmosphere ([Ealias and George, 2012](#)). EI is an important variable which interprets the job satisfaction of employee of any organization ([Daus and Ashkanasy, 2005](#)). The theory of emotional intelligence states that any emotionally intelligent person has better communication and relation within the organization, which results in increased job satisfaction ([Wong and Law, 2002](#)). [Kafetsios and Zampetakis \(2008\)](#)s result demonstrated that job satisfaction is directly affected by emotional intelligence. [Güteryüz et al. \(2008\)](#) found that among EI and organizational commitment, job satisfaction is playing the role of mediator. Therefore, most of the studies identified that job satisfaction is positively and strongly affected by emotional intelligence.

## 2.7 Advice Network

Every organization has a network structure which is created on basis of their knowledge sharing and resource sharing of different unit of any organization ([Galbraith and Galbraith, 1977](#); [Gresov and Stephens, 1993](#)) and this network structure of knowledge sharing is known as advice network. Social network is of vast degree because it creates new knowledge within

organization (Kogut and Zander, 1992; Tsai, 2000) and any learning organization can be characterized by motivational units which are properly interconnected through network which symbolizes the distribution of knowledge and resources and replace old hierarchical structure of organization (Huber, 1991), therefore proper structure of advice network is very important for any developing and developed organization. Network position is also important in any advice network because it is critical for developing new ideas and products; it not only develops new things but also improves the already existing ideas and products, etc. (Tsai, 2001). Different units of an organization have different functions and knowledge which are interlinked with each other due to nature of work and when proper network structure are created then access to each other for share of knowledge can become easier, which may increase the cost efficiency of any organization (Tsai, 2001). Different unit of organizations have different capabilities to create and replicate knowledge from internal and external sources (Cohen and Levinthal, 1990), therefore performance of any unit of organization advice network is critical because it determines the position in coreness of advice network (Tsai, 2001).

When intra organizational network centrality is created in units it can create new market opportunity for organizations (Tsai, 2001). To utilize the external knowledge to achieve critical competencies organization must invest in R&D unit (Cohen and Levinthal, 1990). If there is no proper structure of network then it can create problem rather than facilities (Hansen, 1999).

## 2.8 Research Hypotheses

While reviewing the literature for this thesis research, some hypotheses were created which are as follows

*H<sub>1</sub>: There is positive relationship between emotional intelligence and job satisfaction H<sub>2</sub>: Job satisfaction has a positive relationship between emotional intelligence and coreness of advice network*

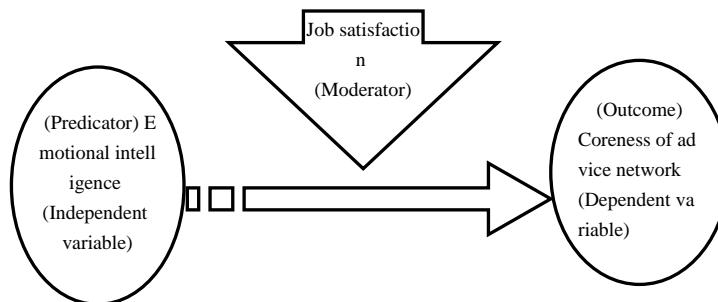


Figure 1: Figure of Moderation Framework of variables of research.

## 3 Methodology

### 3.1 Type of Study

The type of this research study is quantitative because Exploratory research tends to tackle new problems on which little or no previous research has been done (Brown and Brown, 2006)

(p.43). Whereas it assists in shaping the study plan, method of sampling and method of collection of research (Singh, 2007).

## 3.2 Sample and Population

The population of this research is different organizations of Quetta city. The data were collected from 17 different types of organizations, like banks, schools, universities, hospitals, etc. The sample size was 328 to get significant result. Because data collected were set on likert scale and for significant result the sample size should be 300 or greater than that. The participants were selected randomly and were volunteers, and employees of the selected organizations.

## 3.3 Instrument

As the study type is quantitative and its variables are ordinal therefore the instrument used in this research was questionnaire. It consisted of 7 sections (A-G) each section consisted of one major variable and related question were asked in that section the first section-A was of demographic information and consisted of 9 questions. Section-B is of advice network and closeness, coreness was calculated in UCINET software and then used in spss software. Section-C is of emotional intelligence question and had 16 questions. Section-D job satisfaction and had 5 questions. Section- E is of big five personality model and had 10 questions. Section-F perceived leadership style consisted of 18 questions. And the last section was section-G positive psychological capital which consisted of 12 questions. Measurement scale set for all these sections was from 1-7.

## 3.4 Data collection Method

Researcher travelled to different organizations of Quetta city and distributed the instrument to employees of organization after the approval of senior management. Questionnaire was filled according to the instructions given and returned.

## 3.5 Data Analysis

In SPSS 22 software the moderation test was applied to the collected data to analyze the data. To analyze the questions of research moderation test was applied to assess if Job satisfaction moderated the relationship between Emotional intelligence and Coreness of advice network. To asses for moderation, a regression was conducted that considered independent variable (Emotional Intelligence), the moderator (Job Satisfaction), and the interaction between independent variable and the moderator, predicting the dependent variable. Moderation is supported if the interaction term of the regression is significant (Baron and Kenny, 1986).

## 4 Results

To test the moderation analysis, it has to be checked and tested using the regular linear regression menu item in SPSS. We used the process of Andrew F. Hayes which does the centering and interaction terms automatically. In the first step we have to create uncentered interaction term to get the variance accounted by the predictor with and without interaction. At this step

we only check the significance value of models 1 and 2 of table 5.1 and the results of regression were significant as outline in table 1.,  $R^2 = .556$ ,  $F(2, 325) = 203.445$ ,  $p = .000$ . Since the model was significant, the interaction term was examined.

Table 4.1:

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	370.241	2	185.121	203.445	.000
1	Residual	295.727	325	.910		
	Total	665.968	327			
	Regression	394.907	3	131.636	157.344	.000
2	Residual	271.062	324	.837		
	Total	665.968	327			

The result of the interaction term also showed significance  $\Delta R^2 = .037$ ,  $\Delta F(1, 324) = 29.48$ ,  $p = .000$ ,  $t(326) = 50.817$ ,  $p = .000$ . Since the interaction term of moderation analysis was significant the moderation is supported. Now to analyze the effect of moderation we have to run the regression process of Andrew F. Hayes on the centered terms, and output will open which is shown in appendices B.

Table 4.2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Durbin-Watson	
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.746 <sup>a</sup>	.556	.553	.9539017	.556	203.445	2	325	.000	
2	.770 <sup>b</sup>	.593	.589	.9146637	.037	29.482	1	324	.000	1.124

The interaction plot of following graph illustrates that, there is enhancing effect that is increasing the job satisfaction would increase the effect of the emotional intelligence on the coreness of advice network Graph.1

## 5 Discussion

This study mainly focused to analyze the effect of job satisfaction as moderator on the relation of emotional intelligence and coreness of advice network. When employee is emotionally intelligent then he is more satisfied with his or her job thus when emotional intelligence increases

job satisfaction also increases. EI is an important variable which interprets the job satisfaction of employee of any organization (Daus and Ashkanasy, 2005).

This study analyzes the relation of emotional intelligence and coreness of advice network. Coreness of advice network is where there is concentrated exchange of knowledge and advices. This study results illustrated the positive relation of emotional intelligence and coreness of advice network. Emotional intelligence directly affects coreness of advice network, as emotional intelligence trait increases, coreness of advice network also increases because emotionally intelligent person acquires a central position because everyone seeks information from that person, they have better communication and more confidence than other. The theory of emotional intelligence also states that emotionally intelligent people have better communication and relation within the organization, which results in increased job satisfaction (Wong and Law, 2002).

The main objective of this study was to find moderator effect of job satisfaction on relationship between emotional intelligence and advice network. And it has been postulated through study results that job satisfaction as a moderator has significant effect on the emotional intelligence and coreness of advice network. When job satisfaction increases the emotional intelligence effect on coreness of advice network also increases. Therefore, the one who is more satisfied with job and more emotionally intelligent acquires more central position.

## 6 Conclusion

The objective of this study was to illustrate the effect of job satisfaction on the relation of emotional intelligence and coreness of advice network. The hypothesis of the study was to analyze that is there any relation in emotional intelligence and coreness of advice network. The second hypothesis was the illustration of relation of job satisfaction and emotional intelligence. The variables of this study were three, emotional intelligence, job satisfaction and coreness of advice network. Job satisfaction was playing role of moderator, predictor is emotional intelligence which was independent variable and outcome was coreness of advice network which was dependent variable.

The data were collected from different organizations of Quetta city of Baluchistan. The instrument used was questionnaire, which had different questions related to variables of study. The sample size of study was 328.

The results that were obtained in this study were significant. Job satisfaction has significant effect on the relation of emotional intelligence and coreness of advice network. When job satisfaction increases, the effect of emotional intelligence on coreness of advice network also increases. Emotionally intelligent person has more satisfaction of his or her job than other and acquires more central position in the advice network of the organization. The person who is emotionally intelligent and is satisfied with his or her job shares more effective employee of organization, they have good communication skills to transfer advice in network.

### 6.1 Limitations and Future Directions

Advice network was only limited to the coreness. Different variables of advice network such as betweenness and closeness can be studied. Questionnaire was short which didnt have all the variables of emotional intelligence and job satisfaction.

This study can also analyze the mediation relation of these variables because these are interrelated to each. All these three variables affect each other. The sample was only restricted to

organization of Quetta city. It can be tested in many different places. This work will help the practitioner to apply this information to give better performance, and achieve a better position in their organization.

## References

- Abraham, R. (2000). The role of job control as a moderator of emotional dissonance and emotional intelligence–outcome relationships. *The Journal of Psychology*, 134(2):169–184.
- Aghdasi, S., Kiamanesh, A. R., and Ebrahim, A. N. (2011). Emotional intelligence and organizational commitment: Testing the mediatory role of occupational stress and job satisfaction. *Procedia-Social and Behavioral Sciences*, 29:1965–1976.
- Baron, R. M. and 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.
- Beer, M. (1964). Organizational size and job satisfaction. *Academy of management Journal*, 7(1):34–44.
- Brown, R. B. and Brown, R. (2006). *Doing your dissertation in business and management: the reality of researching and writing*. Sage.
- Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behavior and outcomes. *Journal of managerial Psychology*.
- Cherniss, C. (2000). Social and emotional competence in the workplace.
- Cohen, W. M. and Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative science quarterly*, pages 128–152.
- Daus, C. S. and Ashkanasy, N. M. (2005). The case for the ability-based model of emotional intelligence in organizational behavior. *Journal of Organizational behavior*, 26(4):453–466.
- Davis, K. (1988). Ypetmede ysan davranypy: Orgusel davranypy.
- Ealías, A. and George, J. (2012). Emotional intelligence and job satisfaction: a correlational study. *Research journal of commerce and behavioral science*, 1(4).
- Galbraith, J. R. and Galbraith, J. R. (1977). *Organization design*. Prentice Hall.
- Goleman, D. (1998). *Working with emotional intelligence*. Bantam.
- Gresov, C. and Stephens, C. (1993). The context of interunit influence attempts. *Administrative Science Quarterly*, pages 252–276.
- Güteryüz, G., Güney, S., Aydın, E. M., and Aşan, Ö. (2008). The mediating effect of job satisfaction between emotional intelligence and organizational commitment of nurses: A questionnaire survey. *International journal of nursing studies*, 45(11):1625–1635.
- Hansen, M. T. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative science quarterly*, 44(1):82–111.
- Huber, G. P. (1991). Organizational learning: The contributing processes and the literatures. *Organization science*, 2(1):88–115.
- Jones, M. K., Jones, R. J., Latreille, P. L., and Sloane, P. J. (2009). Training, job satisfaction, and workplace performance in Britain: Evidence from 2004. *Labour*, 23:139–175.
- Jorfi, H. and Jorfi, S. (2011). Strategic operations management: Investigating the factors impacting communication effectiveness and job satisfaction. *Procedia-Social and Behavioral Sciences*, 24:1596–1605.
- Kafetsios, K. and Zampetakis, L. A. (2008). Emotional intelligence and job satisfaction: Testing the mediatory role of positive and negative affect at work. *Personality and individual differences*, 44(3):712–722.



- Kogut, B. and Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization science*, 3(3):383–397.
- Köse, M. R. (1985). A study on job satisfaction of employees in three research organizations in turkey. Master's thesis.
- Kosteas, V. D. (2011). Job satisfaction and promotions. *Industrial Relations: A Journal of Economy and Society*, 50(1):174–194.
- Locke, E. A., Sirota, D., and Wolfson, A. D. (1976). An experimental case study of the successes and failures of job enrichment in a government agency. *Journal of Applied Psychology*, 61(6):701.
- Mathieu, J. E. and Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological bulletin*, 108(2):171.
- Matthews, G., Roberts, R. D., and Zeidner, M. (2004). Seven myths about emotional intelligence. *Psychological inquiry*, 15(3):179–196.
- Mayer, J. D. and Caruso, D. (2002). The effective leader: Understanding and applying emotional intelligence. *Ivey Business Journal*, 67(2):1–5.
- Salovey, P. and Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, 9(3):185–211.
- Schulze, R. and Roberts, R. D. (2005). *Emotional intelligence: An international handbook*. Hogrefe Publishing.
- Singh, K. (2007). *Quantitative social research methods*. Sage.
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*, volume 3. Sage publications.
- Tella, A., Ayeni, C., and Popoola, S. (2007). Work motivation, job satisfaction, and organisational commitment of library personnel in academic and research libraries in oyo state, nigeria. *Library philosophy and practice*, 9(2):13.
- Tett, R. P. and Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: path analyses based on meta-analytic findings. *Personnel psychology*, 46(2):259–293.
- Tsai, W. (2000). Social capital, strategic relatedness and the formation of intraorganizational linkages. *Strategic management journal*, 21(9):925–939.
- Tsai, W. (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of management journal*, 44(5):996–1004.
- Wong, C.-S. and Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The leadership quarterly*, 13(3):243–274.

# Current Asset Management as the driver of financial efficiency in Textile Industry of Pakistan

Muhammad Usman Arshad<sup>1</sup>, Zahid Bashir\*<sup>2</sup>, Muhammad Asif<sup>3</sup>, Syed Muhammad Shuja<sup>4</sup> & Ghalib Hussain<sup>5</sup>

<sup>1,2,3</sup> *University of Gujrat, Hafiz Hayat Campus, Gujrat, Pakistan*

<sup>4</sup> *Central University of Finance, and Economics, China*

<sup>5</sup> *University of Sargodha, Pakistan*

---

**Abstract.** The study aimed to explore the significance of the relationship between current asset management, and financial efficiency in the textile sector of Pakistan. Financial data were collected for 50 textile companies for the year 2001 to 2017. The researchers analyzed the study using panel-data estimation techniques like the fixed as well as the random-effect after applying the Hausman-test, and LM-test. Fisher type panel unit root test was also applied. The empirical results of the study indicate that current asset ratio as the measure of current asset management is a highly negatively significant driver of financial efficiency in the textile sector of Pakistan. Also, the controlling factors like leverage, and tangibility are significant factors of financial efficiency. The policymakers, and management of the companies in the textile sector of Pakistan should carefully consider current asset ratio for deciding on enhancing the financial efficiency of their firm as current asset ratio decreases financial efficiency in this sector. They should take careful decision in their current asset management practices.

**Key words:** Current Asset management, Financial Efficiency, Tobins Q Leverage, Textile sector, Pakistan

---

## 1 Introduction

### 1.1 Conceptualization of this Study

There are varieties of financing which can be required to run a business enterprise. First one is long-time period financing, and the second one is brief-term financing. Running capital is the part of a short-time period of financing. Operating capital consists of short-time period property, and quick-term liabilities which are called gross running capital. There's additionally networking capital which consists of deducting modern liabilities from the contemporary property. Working capital mainly performs a critical role within the increase of small-medium corporations. Operating capital does not closely describe the location of an inner company as nicely as it also shows the chance of lenders (Krishnan and Moyer, 1997). If we examine the

---

\*Corresponding author.

Email: zahid.bashir@uog.edu.pk

previous economic crises then we will be capable of understanding that if you are the part of the growing country then you need to pay more attention to running capital control (Jokinen et al., 2008). Working capital control does not only effectively enable you to face monetary crises but also make contributions to competing for the marketplace in addition to growing profitability. In easy words, we can say that in case you attempt to find out the determinants, its manner that it's going to provide you good statistics for buying firm profitability (Akinlo and Asaolu, 2012).

Business cycle plays an essential role in running capital control. We will see that in a period of boom inventory requirement, and short-term liabilities increase in each type of region, and the length of low stock decreases because of the lower sale this is why purchasing on credit score additionally decreases. Seasonal changes in the sale have an effect on running capital management (Pandey, 2010). There are several reasons behind studies on working capital control, due to several past monetary crises, researchers conducted research on operating capital management as well as its additionally academic need. Functioning running control includes stock, money owed payable, and money owed receivable as an essential brief-term finance, and asset control (Ylä-Kujala et al., 2016). The elements of working capital control, and a pursuance between running capital administration and productivity has been considered by various analysts for instance Deloof (2003); Hill et al. (2010); Hsiao and Chiou (2012). Running capital control is basic as a result of its effect on firm productivity, and hazard notwithstanding its fee (Smith, 1980). Cash-conversion-cycle changed into a key segment of management of working capital (Gitman and Forrester Jr, 1977).

In actual feel we can say that the choices approximately, how a good deal we need to invest in inventory, and accounts receivable, how a whole lot to purchase on credit score related to Cash-conversion-cycle which indicates average quantity of days, begins from the date of raw material purchase from a supplier, generating sale then a collection of payments from customers (Ylä-Kujala et al., 2016). Previous researches mainly focuses on running capital control in larger corporations, however running capital management in the small-medium corporation is so crucial due to many companies comprise their belongings in form of modern asset, and their external supply of financing especially include present-day liabilities due to obtaining outside supply of financing lengthy-term possibility they have to face such a lot of hurdles within the capital markets (Petersen and Rajan, 1997). Danielson and Scott (2000); Vasta (2004) demonstrated that small-medium agency firms within America use supplier financing once they have run out of debt. It truly is why working capital management is imperative in small-medium establishments (Peel and Wilson, 1996).

## 1.2 Research Objective

The objective of the current study is to discover the significance of relationship between modern-day asset management elements (like cash-conversion-cycle, cash-conversion-cycle rectangular, modern-day asset ratio, and contemporary liability ratio), and financial performance (like Tobins Q, and Asset turnover ratio controlling other elements like growth, leverage, and tangibility of the belongings).

## 2 Literature Review

García-Teruel and Martínez-Solano (2007) portrayed the impact of working capital management on SME benefit which considers the consequences of running capital management on

small, and medium organization productivity. Investigators used panel records method for the reason for measuring running capital control outcomes on small-medium company profitability. Effects show that company price may be expanded by using reduced inventory as well as the wide variety of days first-rate. Small-medium business enterprises productivity and profitability additionally will be elevated through decreasing the cash-conversion-cycle. [Wasiuzzaman \(2015\)](#) defined the firm value, and working capital in an uplift market. A researcher used normal least regression for the motive of locating effects. Findings display that if we can control efficaciously running capital by way of reducing funding in operating capital then its result may be a better company price. According to literature, absolute confidence company fee could be increased if we manipulate effectively running capital but it has to face a few restrictions additionally, and its results may not be huge on unconstraint corporations.

[Pais and Gama \(2015\)](#) looked at operating capital control, and small-medium companies profitability evidence of Portugal. Panel regression, and instrumental variables have been used on the sample of 6063 small-medium businesses of Portugal. Findings of studies suggest that reducing in Cash-conversion-cycle might be in the result of better profitability of small-medium enterprises in Portugal. [Yazdanfar and Öhman \(2014\)](#) dignified the effect of cash-conversion-cycle on firm profitability. This is experiential research-grounded research which is based totally on Swedish facts. A researcher used an unrelated regression model on pass-section panel information. Outcomes show that the cash-conversion-cycle significantly effects on company profitability, also to manipulate variable age, firm size additionally impact on company profitability. [Nobanee \(2017\)](#) exalted modern belongings management of small-medium corporations.

Studies found out the connection between internet exchange cycle, and liquidity, and used generalize approach of second Dynamic Panel-information machine estimation with the robust widespread blunders for measuring this. Outcomes displayed that there may be negative but extensive dating between internet change cycle, and running capital management, and liquidity of small companies. [Martone \(2014\)](#) described profitable working capital control for industrial renovation companies. Analytical modelling utilized by researcher, and information obtained from financial statements of corporations. Employing using FAM version authors discover that there may be a terrible correlation among cycle time of working capital, and return on funding. The author additionally suggests that there may be so much important working capital control in upkeep carrier quarter purpose is that there are the gentle constant asset, and higher profitability. [Akinlo and Asaolu \(2012\)](#) keep in mind the determinants of working capital prerequisites in chose cited corporation in Nigeria. Panel information technique used, and pattern size consisting of 66 Nigerian companies. Effects indicate that sales boom, firms working cycle, economic interest, size, and everlasting working capital undoubtedly derive running capital policy. Authors additionally advocate that traditional valuation method for working capital can be suspicious as improved in working running capital can be in the result of growing enterprise uncertainties.

[Abuzayed \(2012\)](#) planned the results of operating capital control on SME profitability. The purpose of this research was to indicate that efficient running capital control can enhance company profitability, in addition to firm cost or no longer. Authors, used cash-conversion-cycle, and its components used for measuring operating capital management competencies. There are two overall performance measures utilized in this study, first one is accounting degree, and the second one is marketplace measure. For the sake of finding results sturdy evaluation estimation method was used, and outcomes display that company profitability undoubtedly was stricken by cash-conversion-cycle. [Wijewardana and Dedunu \(2017\)](#) described the effect of working capital on small, and medium businesses productivity, and profitability. The open-

ended questionnaire used for data collection which gathered from district Kurunegala. Working capital management calculated by having the inventory Conversion duration, common collection period, average charge length, and cash-conversion-cycle; Profitability is signified utilizing the return on the property. The look at meditated the modern Ratio, company Leverage, and income growth as the control variables. Findings show a non-significant relationship of the conversion period of inventory, the common-collection-period, the common-payment-duration, and the Cash-conversion-cycle with the SMEs profitability which measured through the go back on belongings. Besides, the research result indicates a negative relationship between company Leverage, and modern-day Ratio with the SMEs profitability, and income growth indicates a superb relationship with the go back on assets. Sooner or later, they have a look at indicates a negative relationship between working capital control, and SMEs profitability. [Enow and Brijlal \(2014\)](#) measured the effect of running capital control on profitability small-medium companies in South Africa. Researchers used regression evaluation for findings, and conclusion. Findings show that there is the positive relationship among some of the days account receivable, variety of days stock, and negative association between some of the days payable, and coins convection. Authors suggest that with the aid of decreasing operating capital, and coins conversion cycle profitability of the company as well as a firm fee will enhance.

### 3 Methodology of Research

#### 3.1 Nature, and the Source

The current study uses the financial data for the selected 50 textile companies listed in PSX. The data for this purpose was taken from the financial statement of these companies from their respective websites for the year 2001 to 2017. The final dataset was in panel shape showing the number of observations as 850 (50 17) firm years.

#### 3.2 Variables

The present study of current asset management as the driver of financial efficiency for the textile sector of Pakistan uses financial data of various variables which are explained in detail under their respective headings.

#### 3.3 Dependent Variables

Financial efficiency (F.E) = The following variables indicating a financial efficiency which is used as a dependent variable

- **Tobins Q** = (Equity market value+ liability book value)/ Equity book value+ Liability book value) this technique used as a replacement of ROA for those firm who has more financial assets Gross operating income as a dependent variable.
- **Asset Turnover** = sale /total asset

#### 3.4 Independent Variables

The following four independent variables were used as the measure of current asset management for the research study;

- **The Cash-conversion-cycle (CCC)** =  $(\text{inventory} / \text{CGS}) \times 365 + (\text{AR} / \text{sales}) \times 365$  (AP/CGS)  $\times 365$ .
- **The Cash-conversion-cycle-square (CCC2)** = Cash-conversion-cycle multiply by cash-conversion-cycle.
- **Current assets ratio (CAR)** = Current asset ratio / Total asset ratio
- **Current liability ratio (CLR)** = Current liability / Total liability

### 3.5 Control Variables

In addition to the independent variables stated above, the following four control variables were used in the research study;

- **Size** = natural logarithm of asset
- **Growth** = Percentage change in sales revenue over the previous year  $(\text{sale1} - \text{sale0} / \text{sale0})$
- **Leverage (DEBT)** = Total debt / total asset
- **Tangibility** = The proportion of Fixed-assets in total-assets.

### 3.6 Modelling of the Study

The contemporary research study uses the ratio of Tobin's Q as well as the ratio of assets-turnover as the outcome variables, while the Cash-conversion-cycle, cash-conversion-cycle-square, the current asset ratio, and the current-liability ratio are used as the independent-variables of this study. Also, the entity's size, entity's growth, leverage, and the tangibility-ratio are used as the control variables of this study. The economic, and econometric relationship between the dependent, and independent variables can be stated in their respective headings.

### 3.7 Economic Modeling

The following two economic models can be established based on previous research studies. To analyze the effect of current assets management's factors as well as control variables on Tobin's Q (financial efficiency), the following economic model can be established;

$$\text{Tobins Q} = f(\text{CCC}, \text{CCC2}, \text{CAR}, \text{CLR}, \text{Growth}, \text{LEV}, \text{Tang})$$

To analyze the effect of current asset managements factors as well as control variables on the Assets turnover ratio (Financial efficiency), the following economic model can be established;

$$\text{ATO} = f(\text{CCC}, \text{CCC2}, \text{CAR}, \text{CLR}, \text{Growth}, \text{LEV}, \text{Tang})$$

### 3.8 Econometric Modeling

For analyzing the econometric liaison concerning the outcome, and the input variables of this study along-with the control variables of this research, the following two econometric models can be established based on previous research studies;

$$\begin{aligned} (\text{Tobin's Q})_{it} = & \beta_0 + \beta_1 (\text{CCC})_{it} + \beta_2 (\text{CCC2})_{it} + \beta_3 (\text{CAR})_{it} + \\ & \beta_4 (\text{CLR})_{it} + \beta_5 (\text{Growth})_{it} + \beta_6 (\text{Leverage})_{it} + \beta_7 (\text{Tang})_{it} + \text{Uit} \end{aligned} \quad (1)$$

$$\begin{aligned} (\text{ATO})_{it} = & \beta_0 + \beta_1 (\text{CCC})_{it} + \beta_2 (\text{CCC2})_{it} + \beta_3 (\text{CAR})_{it} + \\ & \beta_4 (\text{CLR})_{it} + \beta_5 (\text{Growth})_{it} + \beta_6 (\text{Leverage})_{it} + \beta_7 (\text{Tang})_{it} + \text{Uit} \end{aligned} \quad (2)$$

### 3.9 A Hypothesis of the Study

Based on the previous research study, the hypothesis of the current research is established in the following way;

$H_0$ : *There is an insignificant relationship between current asset management, and financial efficiency.*

$H_1$ : *There is a significant relationship between current asset management, and financial efficiency.*

## 4 Data Analysis

### 4.1 Panel Descriptive Statics

The table I (Appendix) indicates that Tobin's Q on average contributes to the current study by 90% approximately, while the contribution of Asset turnover ratio in the current study is approximately 80%. The first independent variable which is cash-conversion-cycle contributes to 13% in this study while other independent variables like cash-conversion-cycle2, current asset ratio, and current liabilities ratio contribute to 4%, 49%, and 2% in respective manners. Controlled variables play a vital contribution in firm efficiency measure both via asset turnover ratio, and Tobin's Q. Growth as a first control variable contributes overall 30% in a current study while remaining factors such as leverage, and tangibility contribute 38%, and 19% in respective manners.

### 4.2 Pearson Correlation Matrix

Table II (Appendix) indicates that there is a negative association between the asset turnover ratio, and Tobins q with the value of the coefficient as -0.0094. This association is not significant at any level. The relationship of the cash-conversion-cycle with Tobin's Q, and Asset turnover ratio is negative with coefficient values of -0.0085, and -0.0178 in respective pattern, and relationship of cash-conversion-cycle with both variables are insignificant. Afterwards, study shows that relationship of CCC2 is negative with Tobins Q (-0.0126), and Asset turnover ratio (-0.0153)

with insignificance at all levels, and have significant (at 1% level), and positive relationship with CCC having a coefficient value of 0.5973. There is a negative relationship of current asset ratio with Tobins Q, cash-conversion-cycle, and CCC2 with coefficient values of -0.0141, -0.0549, and -0.0170 respectively having insignificant association at any level but on the other side current asset ratio have a positive (0.8242) relationship with a significance of 1% level.

Findings regarding current liabilities ratio indicate that this variable has a positive relationship with Tobin's Q (0.0288), CCC2 (0.0031), and current asset ratio (0.0223), and all are insignificant at all levels. There is the negative association of current liabilities ratio with asset turnover ratio having the coefficient value of -0.0058, and with cash-conversion-cycle having the value of the coefficient is -0.0664, and both variables are insignificant at levels. Findings of table II indicate that growth has a negative association with all variables such as Tobin's q, Assets turnover, cash-conversion-cycle, cash-conversion-cycle square, Current asset ratio, and current liabilities ratio having a coefficient value of -0.0041, -0.0166, -0.0094, -0.0158, -0.0257, and -0.0129 respectively. The relationship of growth with all the above-stated variables is not significant at all levels. The table shows that leverage has a positive relationship with asset turnover ratio (0.6305), and current asset ratio (0.7756) while all other factors such as Tobins Q, CCC, CCC2, CLR, and growth have a negative relationship with the coefficient values of -0.0118, -0.0118, -0.0134, -0.0175, and -0.0160 respectively. As far as significant is the concern all the above-mentioned factors are not significant at all level of statistical measurement. At the end of the discussion regarding correlation matrix, Tangibility have the positive correlation with asset turnover ratio (0.6305), and current asset ratio (0.7756), and all other remaining factors have negative association such as Tobins Q -0.0118), CCC (-0.0118), CCC2 (-0.0134), and growth (-0.0246). As far as significance is concerned, asset turnover, Current asset ratio, and leverage are significant at 1% level of significance, and other remaining factors are not significant at any level.

### 4.3 Panel Unit Root Testing

To check the stationery of the variables in the current study, the following panel unit root testing is applied to verify whether the variables of the study are stationary at the same level or not. Table III indicates the panel data stationary. All the variables are stationary at the level as well as at first difference. So there is no issue with the unit root in the data of the current study.

### 4.4 Panel Regression Analysis

Table IV indicates the number of observations as 850 ( $n=50$ ,  $T=17$ ). It also indicates that the model in both cases like fixed-effect, and the random-effect is statistically significant. The table further shows R-squares as the year to year variation in case of both fixed-effect, and random-effect estimation is approximately 86%, firm to firm variation approximately 81%, and overall variation as 85%. The Hausman test (1970) as stated by the above table is not significant at 5% level ( $\text{Prob} > \chi^2 = 0.8113$ ) which indicates that fixed-effect model is not appropriate for the current study. Finally, the random-effect model is validated by Breusch, and Pagan LM test which is significant at 5% level ( $\text{Prob} > \text{chibar2} = 0.0000$ ).



## 4.5 Detailed Findings

### 4.5.1 Cash-Conversion-Cycle

The Table IV indicates that there is a positive, and insignificant relationship between cash-conversion-cycle, and asset turnover ratio (financial efficiency) in case of both types of estimation; fixed-effect as well as random-effect model. The value coefficient of CCC is, 0.0004497, and the probability value is 0.869 using fixed-effect, and value of a coefficient of CCC is .0005894, and its probability value is 0.824. A one-unit input in cash-conversion-cycle may lead to an increase in asset turnover ratio by 0.0004497 using fixed-effect, and 0.0005894 using random-effect model. The insignificant finding of cash-conversion-cycle failed to reject the null hypothesis showing the similar relationship between the variables. The positive finding of cash-conversion-cycle concerning asset turnover ratio is consistent with [Wasiuzzaman \(2015\)](#).

### 4.5.2 Cash-Conversion-Cycle2

The Table IV indicates that there is a negative, and insignificant relationship between CCC2, and financial efficiency (asset turnover ratio) in the case of both estimations like fixed-effect, and random-effect models. The value coefficient of CCC2 is -1.0309, and the probability value is 0.516 using fixed-effect, and the value of a coefficient of CCC2 is -1.0509, and its probability value is 0.499. If a one-unit input is given in CCC2, it may lead to a decrease in financial efficiency by 1.0309 using fixed-effect, and 1.0509 using random-effect estimation. The finding failed to reject the null hypothesis due to a similar insignificant relationship between both variables. The negative relationship between CCC2, and financial efficiency (asset turnover ratio) is consistent with [Reason \(2008\)](#) and [Wasiuzzaman \(2015\)](#).

### 4.5.3 Current Asset Ratio

The table shows that there is a negative, and significant association between current asset ratio, and financial efficiency measure as asset turnover ratio in both cases. The values of coefficients for asset turnover are -3.420731, and -3.52604 for fixed, and random-effect model respectively, while probabilities are the same for both models. If a one-unit input is given in asset turnover ratio, it will decrease in financial efficiency by 3.420731, and -3.52604 for both fixed, and random-effect model respectively. The finding rejects the null hypothesis due to a similarly significant relationship between both variables. The result shown in the table regarding both variables is consistent with [Moyer \(1995\)](#); [Pandey \(2010\)](#).

### 4.5.4 Current Liabilities Ratio

There is a negative, and insignificant relationship between firm efficiency (Asset turnover ratio), and current liabilities ratio for both fixed-effect, and random-effect modelling. Value of coefficient for current asset ratio is 29.05966, and 0.457 is probability value in case of fix effect model while the coefficient value is -30.42653, and probability value is 0.429 in case of random-effect model. The one-unit change in current liabilities ratio brings a negative change of 29.05966, and 30.42653 in case of fix effect, and random-effect respectively. The finding failed to reject the null hypothesis due to a similar insignificant relationship between both firm efficiency, and current liabilities ratio. The conclusion drawn from both variables is consistent with [Pandey \(2010\)](#).

### 4.5.5 Growth

Findings regarding the growth, and firm efficiency show that there is a positive but insignificant relationship between both variables. The coefficient value is 1.134175, and probability value is 0.4182 in case of fixed-effect model while on the other hand coefficient value is 1.067755, and probability value is 0.506 for growth. If we put a 1 unit change in growth, it may increase 1.134175, and 1.067755 in firm efficiency by using fixed-effect, and random-effect model respectively. The finding failed to reject the null hypothesis due to a similar insignificant relationship between both firm efficiency, and growth. The finding of an insignificant relationship between growth, and firm efficiency is consistent with [Moyer \(1995\)](#).

### 4.5.6 Leverage

Table IV indicates that there is a significant, and positive relationship between leverage, and asset turnover ratio measure through financial efficiency in the case of both fixed-effect as well as random-effect estimation. The value coefficient of leverage is, .1749351, and the probability value is 0.000 using fixed-effect, and value of a coefficient of CCC is .1823035, and its probability value is 0.00. A one-unit input in cash-conversion-cycle may lead to an increase in asset turnover ratio by .1749351 using fixed-effect, and .1823035 using random-effect models. The significant finding of leverage rejects null hypothesis showing the similar relationship between the variables. The positive finding of cash-conversion-cycle concerning the asset turnover ratio is consistent with [Lazaridis and Tryfonidis \(2006\)](#).

### 4.5.7 Tangibility

The table shows the positive, and significant association between financial efficiency, and tangibility both in fixed-effect, and random-effect estimation. The coefficient value of tangibility is 4.284602, and value of probability is 0.000 by using fixed-effect while in case of random-effect estimation value of coefficient, and probability are 4.284877, and 0.000 respectively. A one-unit change intangibility will increase the firm efficiency by 4.284602, and 4.284877 in case of fixed-effect, and random-effect respectively. These findings support the alternate hypothesis due to the significant relationship between tangibility, and firm efficiency. [Lazaridis and Tryfonidis \(2006\)](#) shows the consistency for the significant relationship between these two variables.

### 4.5.8 Interpretation of Table V

Table V indicates the number of observations as 850 (n=50, T=17). It also indicates that the model in both cases like fixed-effect, and the random-effect is statistically significant. The table further shows R-squares as the year to year variation in case of fixed-effect estimation is approximately 53%, firm to firm variation approximately 20%, and overall variation as 29%, and in case of random-effect estimation the values of R-square are 50%, 30%, and 35% are to exist in the same pattern. The Hausman test (1970) as shown by the above table is significant at 1% level (Prob >chi2 = 0.0072) which indicates that fixed-effect model is appropriate for the current study as a final decision for testing.

## 4.6 Detailed Findings

### 4.6.1 Cash-Conversion-Cycle

Table v shows the negative, and insignificant association between financial efficiency (Tobins Q), and cash-conversion-cycle both in fixed-effect, and random-effect estimation. The coef-

efficient value of the cash-conversion-cycle is  $-0.0003758$ , and value of probability is  $0.654$  by using fixed-effect while in case of random-effect estimation value of coefficient, and probability are  $-0.0003203$ , and  $0.678$  respectively. A one-unit change in cash-conversion-cycle may decrease the firm efficiency by  $.0003758$ , and  $.0003203$  in case of fixed-effect, and random-effect respectively. These finding fails to reject the null hypothesis due to the insignificant relationship between cash-conversion-cycle, and firm efficiency. [Wasiuzzaman \(2015\)](#) showed the consistency for the significant relationship between these two variables.

#### 4.6.2 Cash-Conversion-Cycle2

The table V shows that there is a positive, and insignificant relationship between CCC2, and financial efficiency (Tobins Q) in case of fixed-effect estimation, and have a negative, and insignificant relationship between these two variables in case of random-effect modelling. The value coefficient of CCC2 is  $7.9111$ , and the probability value is  $0.871$  using fixed-effect, and the value of a coefficient of CCC2 is  $-7.3212$ , and its probability value is  $0.987$ . If a one-unit input is given in CCC2, it may lead to an increase in financial efficiency by  $7.9111$  using fixed-effect, and decrease up to  $7.3212$  by using random-effect estimation. The finding failed to reject the null hypothesis due to a similar insignificant relationship between both variables. The negative relationship between CCC2, and financial efficiency (Tobins Q) is consistent with [Reason \(2008\)](#) and [Wasiuzzaman \(2015\)](#).

#### 4.6.3 Current Asset Ratio

There is a negative, and significant relationship between firm efficiency (Tobin's Q), and current asset ratio for both fixed-effect, and random-effect modelling. Value of coefficient for current asset ratio is  $-0.8084077$ , and  $0.000$  is the probability value in case of fix effect model while the coefficient value is  $-0.7534969$ , and probability value is  $0.000$  in case of the random-effect model. The one-unit change in current asset ratio will bring negative changes of  $.8084077$ , and  $.7534969$  in case of fix effect, and random-effect respectively. The finding rejects the null hypothesis due to a similarly significant relationship between both firm efficiency, and current asset ratio. The conclusion drawn from both variables is consistent [Moyer \(1995\)](#) and [Lazaridis and Tryfonidis \(2006\)](#).

#### 4.6.4 Current Liabilities Ratio

The table shows that there is a positive, and insignificant association between current liabilities ratio, and financial efficiency measure as Tobin's Q in both cases. The values of coefficients for current liabilities ratio are  $12.06634$ , and  $11.92195$  for fixed, and random-effect model respectively, while probabilities are  $0.314$ , and  $0.303$  for both models respectively. If a one-unit input is given in current liabilities ratio, it may increase in financial efficiency by  $12.06634$ , and  $11.92195$  for both fixed, and random-effect model respectively. The finding fails to rejects the null hypothesis due to a similar insignificant relationship between both variables. The result shown in the above table regarding both variables is consistent [Pandey \(2010\)](#).

#### 4.6.5 Growth

Table V indicates that there is an insignificant, and negative relationship between growth, and asset turnover ratio measure through Tobins Q in case of both fixed-effect as well as random-effect estimation. The value coefficient of leverage is,  $-0.0178991$ , and the probability value is  $0.971$  using fixed-effect, and the value of a coefficient of growth is  $-0.048046$ , and its probability value

is 0.922. A one-unit input in growth may lead to decrease an in in Tobins Q by .0178991 using fixed-effect, and .048046 using random-effect models. The insignificant finding of growth rejects null hypothesis showing the similar relationship between the variables. The negative finding of cash growth concerning Tobins Q is consistent with [Moyer \(1995\)](#).

#### 4.6.6 Leverage

Findings regarding leverage, and firm efficiency show that there is a negative, and insignificant relationship between both variables. The coefficient value is -.0013832, and probability value is 0.849 in case of fixed-effect model while on the other h, and coefficient value is -.0066961, and probability value is 0.303 for leverage. If we put a 1 unit change in leverage, it may decrease .0013832, and .0066961 in firm efficiency by using fixed-effect, and random-effect model respectively. The finding failed to reject the null hypothesis due to a similar insignificant relationship between both firm efficiency, and leverage. The finding of an insignificant relationship between leverage, and firm efficiency is consistent with [Lazaridis and Tryfonidis \(2006\)](#).

#### 4.6.7 Tangibility

Table V indicates that there is a positive, and significant relationship between tangibility, and Tobin's Q (financial efficiency) in case of both types of estimation; fixed-effect as well as the random-effect model. The value coefficient of tangibility is, .2573369, and the probability value is 0.000 using fixed-effect, and the value of a coefficient of tangibility is .2293437, and its probability value is 0.000. One-unit input intangibility will lead to an increase in Tobins Q by .2573369 using fixed-effect, and .2293437 using random-effect models. The significant finding of tangibility rejects null hypothesis showing the similar relationship between the variables. The positive finding of tangibility concerning Tobins Q is consistent with [Lazaridis and Tryfonidis \(2006\)](#).

## 5 Conclusion

The study aimed to explore the significance of the relationship between current asset management factors (like cash-conversion-cycle, cash-conversion-cycle square, current asset ratio, and current liability ratio) , and financial efficiency (like Tobins Q , and Asset turnover ratio controlling other factors like Growth, leverage , and tangibility of the assets. The current study used the financial data for the selected 50 textile companies of Pakistan listed in Pakistan stock exchange. The data for this purpose was taken from the financial statement of these companies from their respective websites for the year 2001 to 2017. The final dataset was in panel shape showing the number of observations as 850 (50 17) firm years. The data analysis techniques applied on the current study were panel descriptive statistics, Pearson correlation, panel unit root testing, panel regression like fixed-effect, and random-effect as well as Hausman specification test , and LM test, etc.

### 5.1 Summarized Findings

The researcher concluded that current asset ratio is the highly significant factor of financial efficiency (asset turnover, and Tobin's Q) in the textile sector of Pakistan. The controlling factors like leverage, and tangibility are highly significant in case of Asset turnover ratio while in case of Tobin's Q; tangibility is the only highly significant factor in the textile sector of Pakistan.

## 5.2 Recommendation, and Implications

It is recommended to the policymakers, and management of the companies in the textile sector of Pakistan to carefully consider current asset ratio for deciding on enhancing the financial efficiency of their firm as current asset ratio decreases financial efficiency in this sector. They should take careful decision in their current asset management practices.

## 5.3 Limitation, and Suggestion for Future Research

The current study uses a limited number of independent variables like cash-conversion-cycle, cash-conversion-cycle square, current asset ratio, and current liability ratio. The current study does not include macro factors like inflation rate, GDP, etc. The finding of the current study is applicable only in the textile sector of Pakistan, and do not apply to other sectors.

## References

- Abuzayed, B. (2012). Working capital management and firms performance in emerging markets: the case of Jordan. *International Journal of Managerial Finance*.
- Akinlo, O. and Asaolu, T. (2012). Profitability and leverage: Evidence from Nigerian firms. *Global journal of business research*, 6(1):17–25.
- Danielson, M. G. and Scott, J. A. (2000). Additional evidence on the use of trade credit by small firms: the role of trade credit discounts. Available at SSRN 236260.
- Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of business finance & Accounting*, 30(3-4):573–588.
- Enow, S. T. and Brijlal, P. (2014). The effect of working capital management on profitability: The case of small medium and micro enterprises in South Africa. *The Journal of Accounting and Management*, 4(2).
- García-Teruel, P. J. and Martínez-Solano, P. (2007). Effects of working capital management on SME profitability. *International Journal of Managerial Finance*.
- Gitman, L. J. and Forrester Jr, J. R. (1977). A survey of capital budgeting techniques used by major US firms. *Financial management*, pages 66–71.
- Hill, M. D., Kelly, G. W., and Highfield, M. J. (2010). Net operating working capital behavior: a first look. *Financial management*, 39(2):783–805.
- Hsiao, C.-C. and Chiou, J.-S. (2012). The effect of social capital on community loyalty in a virtual community: Test of a tripartite-process model. *Decision Support Systems*, 54(1):750–757.
- Jokinen, T., Brewster, C., and Suutari, V. (2008). Career capital during international work experiences: Contrasting self-initiated expatriate experiences and assigned expatriation. *The International Journal of Human Resource Management*, 19(6):979–998.
- Krishnan, V. S. and Moyer, R. C. (1997). Performance, capital structure and home country: An analysis of Asian corporations. *Global finance journal*, 8(1):129–143.
- Lazaridis, I. and Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of financial management and analysis*, 19(1).
- Martone, V. (2014). State, markets, and mafias: Political-criminal networks and local governance in the Campania region. *The European Review of Organised Crime*, 2(1):57–78.
- Moyer, R. M. (1995). Jr, and Kretlow, W. J. (1995). *Contemporary Financial Management*.
- Nobanee, H. (2017). Efficiency of working capital management and profitability of UAE construction companies: size and crisis effects. Available at SSRN 2971477.
- Pais, M. A. and Gama, P. M. (2015). Working capital management and SMEs profitability: Portuguese

- evidence. *International journal of managerial finance*.
- Pandey, S. K. (2010). Cutback management and the paradox of publicness. *Public administration review*, 70(4):564–571.
- Peel, M. J. and Wilson, N. (1996). Working capital and financial management practices in the small firm sector. *International Small Business Journal*, 14(2):52–68.
- Petersen, M. A. and Rajan, R. G. (1997). Trade credit: theories and evidence. *The review of financial studies*, 10(3):661–691.
- Reason, T. (2008). Preparing your company for recession. *CFO Magazine*.
- Smith, K. (1980). Profitability versus liquidity tradeoffs in working capital management. *Readings on the management of working capital*, 42:549–562.
- Vasta, E. (2004). Communities and social capital. *Willy Brandt Series of Working Papers in International Migration and Ethnic Relations*; 4.
- Wasiuzzaman, S. (2015). Working capital and firm value in an emerging market. *International Journal of Managerial Finance*.
- Wijewardana, W. and Dedunu, H. (2017). Impact of microfinance to empower female entrepreneurs. *International Journal of Business Marketing and Management (IJBMM)*, 2(7):01–06.
- Yazdanfar, D. and Öhman, P. (2014). The impact of cash conversion cycle on firm profitability. *International Journal of Managerial Finance*.
- Ylä-Kujala, A., Marttonen, S., Kärri, T., Sinkkonen, T., and Baglee, D. (2016). Inter-organisational asset management: linking an operational and a strategic view. *International Journal of Process Management and Benchmarking*, 6(3):366–385.

## 6 Appendix

Table 6.1: Panel Descriptive Statistic for the study

Variable		Mean	Std. Dev.	Min	Max
<b>Tobins Q</b>	Overall	89.8	40.1	-2.211477	70745.2
	Between		10.5	0.8308605	5501.2
	Within		16.5	-5110.786	66945.5
<b>Asset Turnover</b>	Overall	80	47.7	-5088.636	477466.3
	Between		91	0.0360655	92880.8
	Within		30.8	-84490.75	388865.5
<b>Cash-conversion-cycle</b>	Overall	13.1	8.9	-1328720	2557236
	Between		3.1	-320085	599023.7
	Within		2.1	-994940.5	1971906
<b>Cash-conversion-cycle2</b>	Overall	3.71	3.17	0.0000221	6.5412
	Between		1.59	58.17782	1.0812
	Within		2.74	-1.0512	5.4912
<b>Current Asset Ratio</b>	Overall	49.2	23.3	-1.909091	27711.1
	Between		14.6	0.0256768	6171.2
	Within		22.3	-5681.826	22806.7
<b>Current Liabilities Ratio</b>	Overall	1.7	0.86	0	198.8
	Between		0.69	0.052442	23.9
	Within		0.15	-21.94804	176.6
<b>Growth</b>	Overall	30.2	25.4	-0.9999995	4668.5
	Between		17.2	-0.0706536	275
	Within		20.5	-245.7664	4423.7
<b>Leverage</b>	Overall	37.8	24.9	-9.636364	414788.6
	Between		29.8	0.2310175	119707.9
	Within		38.9	-115964.9	298823.6
<b>Tangibility</b>	Overall	18.7	2.7	-1.521739	110271.3
	Between		4.8	0.0227612	21458.5
	Within		8.5	-19090.25	90231.6
<b>Observations = 850 (n =50, T =17)</b>					

Table 6.2: Pearson Correlation Matrix for the Study

	TQ	ATO	CCC	CCC2	CAR	CLR	GR	LEV	TNG
<b>TQ</b>	1								
<b>ATO</b>	-0.0094 0.7847	1							
<b>CCC</b>	-0.0085 0.804	-0.0178 0.6038	1						
<b>CCC2</b>	-0.0126 0.7148	-0.0153 0.6551	0.5973 0	1					
<b>CAR</b>	-0.0141 0.6804	0.8242 0	-0.0549 0.1099	-0.017 0.6211	1				
<b>CLR</b>	0.0288 0.4022	-0.0058 0.8648	-0.0664 0.053	0.0031 0.9292	0.0223 0.5161	1			
<b>GR</b>	-0.0041 0.9043	-0.0166 0.6282	-0.0094 0.7839	-0.0158 0.6448	-0.0257 0.4549	-0.0129 0.7063	1		
<b>LEV</b>	-0.0118 0.7313	0.6305 0	-0.0118 0.7312	-0.0134 0.6972	0.7756 0	-0.0175 0.6111	-0.016 0.6411	1	
<b>TNG</b>	0.0592 0.0845	0.9139 0	-0.0314 0.3608	-0.0094 0.7832	0.2391 0	0.0166 0.6296	-0.0246 0.4739	0.6196 0	1

Table 6.3: Fisher-type unit-root test - Based on augmented Dickey-Fuller tests (Statistics values)

$H_0$ : All Panels contain the unit root

$H_1$ : At least one panel is stationary

Variables	At Lag (0) difference		At Lag (1) difference	
	Inverse chi-squared (46) P	Modified inv. chi-squared Pm	Inverse chi-squared (46) P	Modified inv. chi-squared Pm
<b>Tobins Q</b>	489.4285***	27.5368***	272.0826***	12.1681***
<b>Asset Turnover</b>	244.1622***	10.1938 ***	242.1564***	10.0520***
<b>Cash-conversion-cycle</b>	599.1855***	35.2977***	299.9308***	14.1372***
<b>Cash-conversion-cycle2</b>	852.1684***	53.1863 ***	509.1263***	28.9296***
<b>Current Asset Ratio</b>	232.2055***	9.3483***	138.8354***	2.7461***
<b>Current Liabilities Ratio</b>	513.4204***	29.2332***	395.2358***	20.8763***
<b>Growth</b>	1008.6381***	64.2504***	415.4048***	22.3025***
<b>Leverage</b>	320.9179***	15.6213***	295.5296***	13.8260***
<b>Tangibility</b>	223.6402***	8.7427***	128.5170**	2.0165**

\*\*\* 1%, \*\*5%, \*10%

Number of Panels = 50

Number of Periods = 17

Source: Researchers self-analysis using STATA 13



Table 6.4: Fixed, and Random-Effect

Independent Variables	Dependent Variable: Asset Turnover			
	Fixed-effect Model		Random-effect Model	
	Coefficients	P-values	Coefficients	P-values
Cash-conversion-cycle	0.0004497	0.869	0.0005894	0.824
Cash-conversion-cycle2	-1.0309	0.516	-1.0509	0.499
Current Asset Ratio	-3.420731	0	-3.52604	0
Current Liabilities Ratio	-29.05966	0.457	-30.42653	0.429
Growth	1.134175	0.482	1.067755	0.506
Leverage	0.1749351	0	0.1823035	0
Tangibility	4.284602	0	4.284877	0
Constant	-732.8896	0.052	-706.221	0.448
Number of Obs	850		850	
Number of Groups	50		50	
Model Significance	F(7,793) =719.02, Prob> F = .0000 Wald chi2(7)= 5247.35, Prob > chi2=.0000			
R-Square (within)	0.8639		0.8639	
R-Square (Between)	0.8124		0.8134	
R-Square (overall)	0.852		0.8522	
Rho	0.27056236		0.25352015	
Hausman Test	Prob>chi2 = 0.8113			
Breusch , and Pagan Lagrangian multiplier test for random-effects	chibar2(01) = 350.58 Prob > chibar2 = 0.0000			

Source: Researcher self-analysis using Stata 13

Table 6.5: Fixed, and Random-Effect

<b>Dependent variable: Tobins Q</b>				
<b>Independent Variables</b>	<b>Fixed-effect Model</b>		<b>Random-effect Model</b>	
	<b>Coefficients</b>	<b>P-values</b>	<b>Coefficients</b>	<b>P-values</b>
<b>Cash-conversion-cycle</b>	-0.0003758	0.654	-0.0003203	0.678
<b>Cash-conversion-cycle2</b>	7.9111	0.871	-7.3212	0.987
<b>Current Asset Ratio</b>	-0.8084077	0	-0.7534969	0
<b>Current Liabilities Ratio</b>	12.06634	0.314	11.92195	0.303
<b>Growth</b>	-0.0178991	0.971	-0.048046	0.922
<b>Leverage</b>	-0.0013832	0.849	-0.0066961	0.303
<b>Tangibility</b>	0.2573369	0	0.2293437	0
<b>Constant</b>	407.549	0	393.764	0.013
<b>Number of Obs</b>	850		850	
<b>Number of Groups</b>	50		50	
<b>Model Significance</b>	F(7,793) =6.36, Prob> F = .0000		Wald chi2(7)= 36.16, Prob > chi2=.0000	
<b>R-Square (within)</b>	0.0531		0.0501	
<b>R-Square (Between)</b>	0.02		0.03	
<b>R-Square (overall)</b>	0.0298		0.0351	
<b>Rho</b>	0.12999657		0.05367803	
<b>Hausman Test</b>	Prob>chi2 = 0.0072			

Source: Researcher self-analysis using Stata 13

## Services Quality & Students Satisfaction Level

Dr. Muhammad Imran Hanif<sup>1</sup>, Muhammad Shahid\*<sup>2</sup> & Shakeel Ahmed<sup>3</sup>

<sup>1</sup> *Putra Business School, University of Putra Malaysia*

<sup>2,3</sup> *Bahauddin Zakariya University, Multan, Pakistan*

---

**Abstract.** Objective of the research was to explore the relationship flank-by Students satisfaction level with five variables shown in frame-work. Population of this study was whole country (Pakistan). As a sample (7) universities as well as degree awarding institutes were selected by convenient stratified sampling. Field survey was applied. 490 questionnaires were circulated & finally acknowledged (n=446). Response rate was 91%. Likert scale methodology applied in structural questionnaire. Statistical Package for Social Sciences (SPSS) 21st edition analyzed the data. 1st analyzed the Demographic variables statistical portion, (r) correlation, (R<sup>2</sup>) regression, ANOVA analysis, as well as Coefficient Variance analysis. Level of data reliability can be measured by Cronbachs Alpha (0.941). Hypothesis also retrospective that Students satisfaction level has a strong & positive association flank-by Reliability, Tangibility, Empathy, Assurance and Responsiveness.

**Key words:** Student, Satisfaction, service quality, consequences & antecedents.

---

### 1 Introduction

Universities and HEI (Higher educational institutions) are progressively having supplementary recognition in educational service industry even in history. Regular pupils levels of expectation are higher than irregular students. Many degree awarding institutes and universities estimate the higher superiority level of teaching and non-teaching cost. Enhancing the number of colleges and universities in higher education is an alarming situation for the institutes. Beside these institutes and colleges the expectation level of the students are increasing (Kotler and Fox, 1995). Many services provided by institutes and colleges are not sufficient. Library surveys in domestic and an international level shows the students expectations are increasing day by day from many years (Bell, 1995).

Thus, institutes and colleges, they require recognizing the specific targeted customers, as well as the students and other stakeholders. These things can up-lift the number of only those students who belongs to the specific category. Through this way their expectations can easily be fulfilled (Davidson et al., 2004). Achievements and developments with respect to students performance are based on their educational level. Colleges and degree awarding institutes are the major contributor to enhance the students mental caliber and their positions. Enrollments

---

\*Corresponding author.

Email: muhammad.shahi@yahoo.com

of students are greater in the colleges and universities as compared to previous years (Zemke, 2000).

Marketplaces are now forcing the business educational institutes and colleges to retrace their system and structure according to the strategy of HEC (Higher Education Commission). Technology should be provided according to the customers necessities and students demand. Remove the traditional technology with up-dated technology to deliver the modern education. Superior services and commissioned exams preparation can be handled with the help of these subjects and equipments in the whole country (Froehle et al., 2000). This research paper explores the relationship flank-by students satisfaction with respect to university/degree awarding institutes and colleges (Bolton, 1998).

## 2 Literature Review

Students satisfaction level depends on the different aspects. Historical perspectives also retrospective that students satisfaction can be quenched by tangibility of those things provided by the university. Students expect the assurance of their degrees that will be complete and they'll fulfill all the requirements easily by all aspects. Image of the university should be reliable in the rival market and in the eyes of the stakeholders. Quick response from the faculty members and administrative bodies take an active part in the students satisfaction level. Finally empathy is our last variable we have studied. It retrospective the understanding level among the students, their other fellow members and with university staff members. So we have tried to take the bird eye view of the above mentioned five variables in the literature review with the help of an authentic researchers studies.

### 2.1 Tangibility with Students Satisfaction

Tsinidou et al. (2010) expressed that educational activities and services are not tangible, that's why they are hard to measure in the results. Their outcomes are in shape of knowledge transformation, modification of the learners and life skills. ? said that Mostly researchers do not cumulatively agree on quality definition that can be purely applied on the field of education, it varies among different cultures. Individual characteristics and learning environment play a vital role in academic achievements.

### 2.2 Assurance with Students Satisfaction

Hughes et al. (1995) articulated that the students informational level, social structure system, parents educational level and senior qualified friends suggestion is the major cause to improve the quality level of students with the performance of their academic success. Goddard (2003) also agree that educational level of students, parents and also those friends who suggest the students to get admission in the specific universities/institutes. According to Walberg et al. (1981) educational Productivity determined these three groups, as well as (1) parents instructions (2) students aptitude and (3) educational family environment that really affects the students performance and academic success. Beverland et al. (2007) and Caldas et al. (2007) survey also retrospect that parental education level, occupation, there income level and facilities. These factors play an important role in students achievements. These factors have a positive and strong correlation among students performance and their academic success.

### 2.3 Reliability with Students Satisfaction

Hunter et al. (1990) said that the best reliability analysis practices can be reported as the fortifying slice of consistency in universities. Piloting and building a coding style with different academic variables, ascertaining levels and training raters are the agreement of reliability with students. Bangert-Drowns and Rudner (1991) represents that ideologically two, or may be more researches have the positive view about it. Homburg and Stock (2005) said that no matter if other variables take place, alternatives of the reliability in educational institute can be justified with some justifiable factors. Excellent services cover the uncertainty. Highly qualified faculty, equipped labs & sample experiments and projects can prove the institute as a reliable. Shymansky et al. (1990) studied primary analysis factors and characteristics that organized with descriptive groups to sort out the samples. Second as-well-as third study generates some categories that allows and amendment the alternate variables. Orwin et al. (1994) have studies that Reliability has a very strong and positive association flank-by Students satisfaction level. If university or institute is reliable by all perspectives, students get admission with blind trust and become the source of good word of mouth advertisement.

### 2.4 Responsiveness with Students Satisfaction

Reisberg (1999) articulated the statistics that 40 percent students leave the higher studies without obtaining their degree due to poor response from the universities. More current and recent statistics specify that 26.4% of students do not yield back from the following fall semester. Moreover 46.2 percent of the students do not graduate from the universities. Its just due to the unadulterated responsiveness of the universities/institutes. Tinto (1975, 1987) argue that previous studies show that 75 percent students slump out in their first two years of the universities/institutes. Educational institutes can forestall that 56 percent of the idiosyncratic the class cohort will not to be graduated from the universities/institutes. Researches agree that responsiveness and students satisfaction have a tremendous relationship. No doubt responsiveness and students satisfaction have a positive and strong correlation with each other. If students dont get proper responsiveness from the universities/institutes then their satisfaction level will decrease. So for the fulfillment of this objective, should be carefully observed students satisfaction level in the universities/institutes to manage it.

### 2.5 Empathy with Students Satisfaction

Sampaio et al. (2019) said that new moral prerogative which converts the students meaning into customers. Customers/clients are usually paying the fee, therefore they consider as the customers. Research proved that knowledge is more important than fees. No one can pay the alternate of tutors, instructor and teachers; even though its risky to consider students as clients. Another cross boundary research found by Hasan et al. (2008) defined that students are most important pillar in the universities/institutions. In private educational institutes students are the main financial contributors. But dont consider them as customers, because they are paying for the technical facilities provided by the university/ institutes; while no one has capacity to pay the reward of teachers services. If we consider them as a customer, then we legitimize them only study and learning for earning.

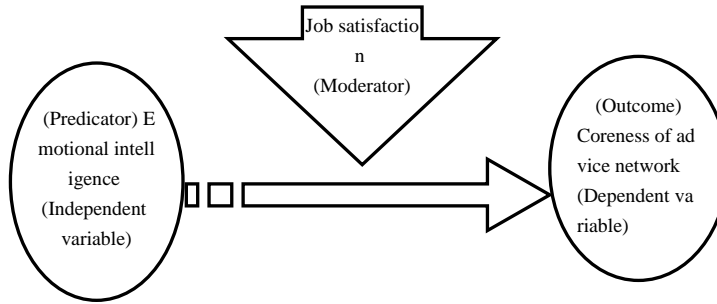


Figure 1: Theoretical Framework

## 2.6 Hypotheses

*H<sub>1</sub>: Tangibility & Students satisfactions are strong & positively correlated to each other. H<sub>2</sub>: Assurance & Students satisfactions are strong & positively correlated to each other. H<sub>3</sub>: Reliability & Students satisfactions are strong & positively correlated to each other. H<sub>4</sub>: Responsiveness & Students satisfactions are strong & positively correlated to each other. H<sub>5</sub>: Empathy & Students satisfactions are strong & positively correlated to each other.*

## 3 Research Methodology

### 3.1 Population

Universities and degree awarding institutes of the Pakistan were our population in this research paper.

### 3.2 Sample

Weve taken 446 filled questionnaires out of 490 from the respondents as a sample data from the seven (7) universities & degree awarding institutes of the Pakistan. It was 91%. Sample includes as (1) BZU Multan, (2) COMSATS IIT Islamabad, (3) GC University Faisalabad, (4) Gomal University DI Khan, (5) NCBA&E-Lahore, Layyah Campus, (6) ISP (Institute of Southern Punjab) Multan, (7) LUMS (Lahore University of Management Sciences).

### 3.3 Sampling Technique

Field survey stratified random sampling technique was used in this research paper. Cross sectional data were taken with the help of five point Likert scale. (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree & 5= Strongly Agree). Data analyzed on Statistical package for Social Sciences (SPSS) 21st version. Primary data based on the questionnaire, filled by random sampling from 7 (seven) universities and degree awarding institutes of Pakistan.

### 3.4 Data Collection

Multiple techniques were used for data collection, such as Questionnaire, Telephone, Skype and Email. Data were collected from Islamabad (Federal Capital of Pakistan), Multan, Faisalabad, Dera Ismail Khan (KPK, Khyber Pakhton khawah), Layyah and Lahore (Provincial Capital of Punjab).

## 4 Analysis and Results

Table 4.1: Descriptive Statistical Analysis

Demographics	Variables	n (%)
Sex	Male Students	274 (61.4)
	Female students	172 (38.6)
Age in (Years)	;<18 Years	37 (8.3)
	18-20 Years	197 (44.2)
	21-23 Years	152 (34.0)
	24-27 Years	45 (10.0)
	28 & Above	16 (3.5)
Class in which studying	Bachelor	205 (46.0)
	Master	157 (35.1)
	MS/M. Phil.	81 (18.1)
	Ph.D	04 (0.87)
Status of the Institute (University)	Public Sector	100 (22.4)
	Private Sector	346 (77.6)
Department	Commerce & Business Admin	183 (41.0)
	Computer Sciences	123 (28.0)
	Natural Science	69 (15.0)
	Engineering & Technology	40 (9.0)
	Law	22 (5.0)
	Others	9 (2.0)

The total respondents of our research were 446, from them 374 (61.4%) were male students and 172 (38.6%) female students. There were 37 (8.3%) students who aged less than <18 years, 197 (44.2%) students were between 18-20 years, 152(34%) students were 21-23 years, 45(10%) students were between ages 24-27 years, finally 16(3.5%) students who were 28 years and above.

Class wise in bachelors there were 205(46%) students, in Master level 157 (35.1%), in MS/M.Phil level 81(18.1%) and finally in Ph.D level 4(0.87%) students. Institute status wise there were 100

(22.4%) students from public sector universities and 346 (77.6%) belonged to private sector universities. Public sector students participation was weak.

Department wise there were 183 (41%) students from Commerce and Business department, 123 (28%) from Computer Sciences department, 69 (15%) from Natural Sciences department, 40 (9%) from Engineering & Technology department, 22 (5%) from Law department and finally 9 (2%) from other departments.

Weve distributed total 490 questionnaires in seven (7) universities, 70 in each university /institute, out of them 446 (91.02%) were valid. Then we have used Statistical Package for Social Sciences (SPSS 21.0) for data interpretation.

Table 4.2: Reliability of Individual Variables

Variables	No. of Questions	Cronbachs Alpha ( $\hat{\alpha}$ )
Tangibility with students satisfaction	17	0.97
Assurance with students satisfaction	9	0.94
Reliability with students satisfaction	9	0.98
Responsiveness with students satisfaction	7	0.89
Empathy with students satisfaction	5	0.96

Cronbachs Alpha ( $\hat{\alpha}$ ) shows the reliability of the questionnaire and data. The above five (5) Independent Variables individual Cronbachs Alpha ( $\hat{\alpha}$ ) has fulfilled the standard criteria that should not be less than 0.7 according to [Nunnally \(1978\)](#) & [Sekaran et al. \(2003\)](#).

Table 4.3: Reliability Statistics

Cronbach's Alpha( $\hat{\alpha}$ )	N of Items
0.941	61

The minimum level of reliability of data is 0.7 (Ismail et al., 2016). The sum of five subscales and divided it on total number of I.V that were five. There were 47questions of IVs, 8 were demographic questions and 6 questions from D.V. Total number of questions were 61. So finally we got 0.941 Cronbachs Alpha (). Our study shows 0.941 values of reliability of data that is excellent level.

Correlation shows the association and relationship among dependent and independent variables. Here Tangibility, Assurance, Reliability, Responsiveness and Empathy (I.Vs) have a standard and certified criterion of linkage with each other. In the above correlation analysis flank by D.V and I.V represent that 1.00 value with each variable. That shows the positive, significance and reliable relation between these variables.

Analysis of variance (ANOVA) shows the overall significance. Here it shows the variations of relationship flank-by variables. Sum of Squares 2999.584 represents that it is a discrepancy of the model. Students satisfaction varies in different situations (variables). Residual (3591.447) with respect to 328 which reviews the un-explained variation of the model. It means that variation of model is literally bit different from the Regression. Degree of freedom (df) and Mean



Table 4.4: Correlation

	Student Satisfaction	Tangibility	Assurance	Reliability	Responsiveness	Empathy
Student satisfaction	1					
Tangibility	0.553	1				
Assurance	0.568	0.609	1			
Reliability	0.532	0.489	0.678	1		
Responsiveness	0.559	0.449	0.59	0.701	1	
Empathy	0.546	0.546	0.435	0.127	0.621	1

Table 4.5: ANOVA Results

Model		ANOVA <sup>a</sup>				Sig.
		Sum of Squares	df	Mean Square	F	
1	Regression	2999.684	13	812.211	49.495	.000b
	Residual	3591.447	328	21.31		
	Total	7657.214	315			

a. Dependent Variable: student satisfaction

b. Predictors: (Constant), tangibility, Assurance, Reliability, Responsiveness, Empathy.

Square with respect to frequency (F) shows the similarity flank-by variables. At the end Significance (Sig) 0.000, its values always should be <0.05. Now it also advocates our results that Students satisfaction greatly depends on the above given five variables.

Table 4.6: Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.689	0.374	0.364	3.8098	0.474	44.735	5	248	0	1.755

Coefficient of Multiple correlations (r) shows 0.689 values. It means moderate relationship exists between Dependent & Independent Variables. The value of Coefficient of determination (R<sup>2</sup>) shows that only 37% variation in DV explained by all IVs. Results of Regression could not be overestimated, that's why we have taken the Adjusted R Square (R<sup>2</sup>). It also advocates that 0.01 differences, that is acceptable. Sig. F Change (over-all significance) of the regression has .000 values, which is in acceptable range. Durbin-Watson (auto-correlation) values should

remain between 0 - 4. If approach to 0. It means positive autocorrelation. Here it is 1.755. So we can say that Students satisfaction really depends on the tangibility, Assurance, Reliability, Responsiveness & Empathy.

Table 4.7: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error				Beta	Zero-order	Partial	Part	Tolerance
1 (Constant)	-2.663	1.696		-1.57	0.118					
tangibility	0.134	0.03	0.263	4.443	0	0.553	0.272	0.205	0.607	1.647
Assurance	0.119	0.067	0.128	1.77	0.01	0.568	0.112	0.082	0.404	2.474
Reliability	0.031	0.064	0.036	0.488	0	0.532	0.031	0.022	0.383	2.61
Responsiveness	0.186	0.082	0.166	2.261	0.002	0.559	0.142	0.104	0.392	2.55
Empathy	0.351	0.111	0.239	3.169	0.02	0.601	0.197	0.146	0.371	2.693

a. Dependent Variable: student satisfaction

In coefficient weve observed In Tangibility, B/Std. Error=t (0.134/0.030= 4.443) Sig (Significance) level is 0.00. Its value should be less than <0.05. In Assurance 0.119/0.067=1.770 here Sig. is 0.010 (acceptable). In Reliability 0.031/0.064=0.488, here Sig. is 0.00 (acceptable). In Responsiveness B/Std. Error (0.186/0.082=2.261) here Sig. is 0.002(acceptable). In Empathy B/Std. Error (0.351/0.111=3.169) here Sig. is 0.020, weak but acceptable. It shows that only 20% students do not rely on Empathy from the Universities / degree awarding institutes.

## 5 Discussion

### 5.1 Findings & Results

Rivalry market creates the new challenges in the current century. Universities, Colleges & Degree awarding institutes are facing the problems regarding students satisfaction. Our study has unveiled the specific aspects. Tangibility, Assurance, Reliability, Responsiveness & Empathy have their own impacts and results on the satisfaction level of students. Correlation shows that these five Independent variables have a strong impact on the satisfaction level of the students. As well as all these variables have the very positive relationships flank-by each other. Analysis of Variance showed the positive results regarding the satisfaction level. In Regression analysis R then R square, DF as well as Durbin-Watson retrospect the good gesture. In Coefficient statistics we also checked these values. At the end reliability of data (questionnaire) based on the results of Cronbachs Alpha () shows the very significant results. Eventually we have observed and found that the Students have many expectations from the universities and institutes, but educational institutes cant fulfill every expectation of the students. Empathy & Assurances results were normally week, but acceptable. It means that students satisfaction is not purely based on the

Empathy. Analysis of variance and Regression results usually same. But researchers give the more preference to the Analysis of variance values and always it should be reported.

## 5.2 Conclusion

Systematically changes are occurring in the university/degree awarding institutes. If these academic institutions have Tangibility in their promises what they have done with their pupils, Reliability in their services Responsiveness in their administrative issues, Empathy with their own pupils career & future. Then students satisfaction is level really based on these five things. No doubt students are the most important pillar in the educational institutes. They contribute the major portion of the finance to the institutes account. Thats why they have expectations. So researchers agree that students are the assets of the nation. Dont consider them as customers. Students have their own level of satisfaction. Tangibility provided by the university is most important. Assurance of degree and its requirements will be fulfilled on the specific time span. Soft image and word of mouth advertising regarding university should be reliable. One window operation (quick response) is necessary in administration departments. If any institute or university pays an individual attention to the every student, their response will be very active and appropriate.

## 5.3 Future Direction of Research

Satisfactory level cant be covered by only single side. We have covered it from the five different levels (variables). Few universities & degree awarding institutes are focusing only on interior & exterior decoration to make their university or institute more iconic. But its not enough to meet the satisfaction level of the students. Only five (5) variables as well as only seven (7) universities, degree awarding institutes and with only four hundred & forty six (446) were not copious. It will take huge time with several variables. Well expand it with the comparative analysis of education with respect to students satisfaction level. Well take the Pakistan as a population and sample from the four (4) provinces. Then we hope so results will definitely something different from this research study.

## References

- Bangert-Drowns, R. and Rudner, L. (1991). Meta-analysis in educational research (eric document reproduction service no. ed339748).
- Bell, J. (1995). The internationalization of small computer software firms. *European journal of marketing*.
- Beverland, M., Lindgreen, A., Napoli, J., Roberts, J., and Merrilees, B. (2007). Multiple roles of brands in business-to-business services. *Journal of Business & Industrial Marketing*.
- Bolton, R. N. (1998). A dynamic model of the duration of the customer's relationship with a continuous service provider: The role of satisfaction. *Marketing science*, 17(1):45-65.
- Caldas, S. J., Bankston III, C. L., and Cain, J. S. (2007). A case study of teachers perceptions of school desegregation and the redistribution of social and academic capital. *Education and Urban Society*, 39(2):194-222.
- Davidson, J. H., Keegan, W. J., and Brill, E. A. (2004). *Offensive marketing: An action guide to gaining competitive advantage*. Routledge.
- Froehle, C. M., Roth, A. V., Chase, R. B., and Voss, C. A. (2000). Antecedents of new service development effectiveness: an exploratory examination of strategic operations choices. *Journal of Service Research*, 3(1):3-17.

- Goddard, P. (2003). Changing attitudes towards harm reduction among treatment professionals: A report from the american midwest. *International Journal of Drug Policy*, 14(3):257–260.
- Hasan, H. F. A., Ilias, A., Rahman, R. A., and Razak, M. Z. A. (2008). Service quality and student satisfaction: A case study at private higher education institutions. *International Business Research*, 1(3):163–175.
- Homburg, C. and Stock, R. M. (2005). Exploring the conditions under which salesperson work satisfaction can lead to customer satisfaction. *Psychology & Marketing*, 22(5):393–420.
- Hughes, M. E., Furstenberg Jr, F. F., and Teitler, J. O. (1995). The impact of an increase in family planning services on the teenage population of philadelphia. *Family planning perspectives*, pages 60–78.
- Hunter, J. E., Schmidt, F. L., and Judiesch, M. K. (1990). Individual differences in output variability as a function of job complexity. *Journal of Applied Psychology*, 75(1):28.
- Kotler, P. and Fox, K. F. (1995). *Strategic marketing for educational institutions*. Prentice Hall.
- Nunnally, J. C. (1978). *Psychometric theory* mcgraw-hill book company. INC New York.
- Orwin, R. G., Sonnefeld, L. J., Garrison-Mogren, R., and Smith, N. G. (1994). Pitfalls in evaluating the effectiveness of case management programs for homeless persons: lessons from the niaaa community demonstration program. *Evaluation Review*, 18(2):153–207.
- Reisberg, L. (1999). Violence-studies program takes aim at social evils and student attitudes. *Chronicle of Higher Education*, 46(11).
- Sampaio, C. A., Hernández-Mogollón, J. M., and Rodrigues, R. G. (2019). Assessing the relationship between market orientation and business performance in the hotel industry—the mediating role of service quality. *Journal of Knowledge Management*.
- Sekaran, S., Foster, R. G., Lucas, R. J., and Hankins, M. W. (2003). Calcium imaging reveals a network of intrinsically light-sensitive inner-retinal neurons. *Current biology*, 13(15):1290–1298.
- Shymansky, J. A., Hedges, L. V., and Woodworth, G. (1990). A reassessment of the effects of inquiry-based science curricula of the 60's on student performance. *Journal of Research in Science Teaching*, 27(2):127–144.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of educational research*, 45(1):89–125.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. ERIC.
- Tsinidou, M., Gerogiannis, V., and Fitsilis, P. (2010). Evaluation of the factors that determine quality in higher education: an empirical study. *Quality assurance in Education*.
- Walberg, H. J., Haertel, G. D., Pascarella, E., Junker, L. K., and Boulanger, F. D. (1981). Probing a model of educational productivity in science with national assessment samples of early adolescents. *American Educational Research Journal*, 18(2):233–249.
- Zemke, R. (2000). The best customer to have is the one you've already got. *The Journal for Quality and Participation*, 23(2):33.

# Moderation by Emotional Intelligence on Perceived Leadership Effectiveness and Workplace Performance Outcomes

Rehan Qadir\*<sup>1</sup>, Bilal Sarwar<sup>2</sup>, Usman Azhar<sup>3</sup> & Dr. Nadeem Uz Zaman<sup>4</sup>

<sup>1</sup> *Alhamd Islamic University, Quetta, Pakistan*

<sup>2,3,4</sup> *Balochistan University of Information Technology, Engineering and Management Sciences, Quetta, Pakistan*

---

**Abstract.** The research was conducted for inspecting the bond among Perceived Leadership and Employee Workplace Outcomes as well as the moderating role of Emotional Intelligence on the connection between perceived leadership and Employee Workplace Outcomes. The survey was conducted through 260 employees of high schools of Quetta Pakistan, perceiving their managers as leaders including teaching and non-teaching staff. The results of 232 employees analyzed statistically by SPSS (v. 25.0), Add on Process by Andrew Hayes and AMOS 24. Study findings showed that acting strategies of perceived leadership relate positively to employees workplace outcomes, which increases or decreases with increased or decreased relation between them. The performance results show significant moderating effects of emotional intelligence, i.e. increases employee workplace performance, by upgrading the relationship between leaders and employees. These findings contribute to the literature on perceived leadership and the impact of intelligence level of employees, which may promote the education quality in high schools by improving intelligence level and offering some directions to HR practitioners for some possibly advantageous exercises and recruitment procedures and promoting human empowerment. This study was focused on high schools only, future studies may be conducted on other sectors of the education department and remote areas other than cities.

**Key words:** Emotional Intelligence, Workplace Outcomes, Perceived Leadership, Employee Performance, Moderation.

---

## 1 Introduction

Leaders in all sectors may need to understand the importance of leadership strategies to enhance employee performance. Due to the relevance of the business sector on the performance of the labor force, providing evidence on best practices is essential. In this learning, the study proposes to bond the ideas between academia and industry, so business experts recognize the significance of leadership strategies (Sellers, 2017). There are various methods that can be used for a successful life, cleverness (Intelligence) is important, but not the only thing to be successful,

---

\*Corresponding author.

Email: Rehan-malik95@live.com

where we use IQ for the account of educational and carrier success. For talent which contains the awareness and identifying resource and strategy, finding and checking solutions and valuations (Abdulmajeed, 2016). Social intelligence is hosted into findings by Thorndike's definition of public motorized and intellectual intelligence 1920 (Somazo, 1990).

Emotional Intelligence (EI) as a measurement of public intelligence is expressed as the talent of considering ones own feelings and others feelings, showing ones emotions, utilizing and handling them (Salovey and Mayer, 1990). Where intelligence in education sets fix forward right criteria of intelligence for humans, EI detects the correct standards of victory in life (Goleman, 1995). EI assists everyone to show your feelings exactly by gaining familiar with and examining your and others feelings and showing on those emotions in our life. Higher IQ level can help to be successful in life, but some other factors such as motivation, social skills, efforts, emotional adaptability, control, determination, and faith are also important (Epstein, 1998).

Humans reflect whether they mob the important features if they ever needed to gain somewhat simple alteration among people, considering they are expert adequately and ones that arent successful in achieving and initiating specific behavior (Selçuk et al., 2007). This condition refers to social self-performance in a social learning environment (Bandura, 1997).

Researchers and consultants have instigated to understand that procedural management is not the explanation to all problems and EI is the key source of getting the achievement of goals (Love et al., 2011; Rezvani et al., 2016). The concepts of EI are broadly classified into 2 separate designs: a mixed model and a qualitative model. Goldman et al. (1996) advocated a broader sense of the mixed model of EI combining aspects of personality with social behaviors and abilities. Whereas, the model of competency: labeled by the work of Salovey and Mayer (1990) has the core characteristics of understanding and managing the emotions of oneself and others, capable of forming beneficial thoughts and behaviors (Bratton et al., 2011) and can be upgraded conferring to advancement of publics age and experiences.

## 1.1 Problem Statement

Leadership and school performance have gained substantial attention in the literature. Research studies in the field of leadership and EI have begun to be discovered in depth in recent years. According to Stephens and Hermond (2009), the thought of EI has struck a specific chord with many leaders today because it promotes what many have expected for so long that overall intelligence, as measured by IQ, is not the only critical factor in foreseeing the success of leaders in real everyday organizations. Maulding (2002) stated that the key to filtering leadership lies in using both features of the brain effectively (General Intelligence and Emotional Intelligence) by learning how to apply emotions effectively or, in other words, by emerging our EI (p. 235). He further posited that a certain level of general intelligence would secure the job, but EI is crucial to becoming a successful leader.

According to research (Naseem, 2018), EI displayed a moderating role for employee happiness and life satisfaction. It indicates that the ability of telecommunication employees to appropriately manage their emotions and other employee emotions can enhance their capabilities to cope with job stress in executing a job. Consequently, it may clue to a higher level of happiness and life satisfaction. This study contributes to the theoretical knowledge of job stress (Naseem, 2018). In spite of the operational boundaries of this report, the current outcomes deliver beneficial material for a forthcoming hierarchical addition of the dissimilar dispositional elements of gladness and highlight the independent involvement of the somewhat under-developed concept of feature EI in the expectation of cheerfulness. While additional repetition, altering for

bandwidth reliability and including conditional variables, is required for an additional examination of the incremental rationality of feature EI over personality and other individual difference factors, feature EI seems to be an imperative determining factor of cheerfulness (Chamorro-Premuzic et al., 2007). Based on the results, it is again ascertained that EI and Emotional Self Efficacy are not overlapping constructs, they are somewhat distinct and have separate utility from trait EI and ability EI (Kirk et al., 2011).

A Principals role in leading a campus toward victory has become more complicated and multifaceted, and as a conclusion, a principal must be able to encourage and sustain learning in the face of complicated and quick change (Fullan, 2002). Gragg (2008) posited that good principal demands good management, not only in the everyday management skills, but also the art of managing employees. After examining the existing theories and studies it is needed to find out the impacts of perceived leadership on workplace outcomes, and it is essential that how EI plays a moderating role between perceived leadership and workplace outcomes in the educational sector of Quetta city. There are some core reasons which should be explained, and these are as follows:

Firstly, no work in the education sector is done which is essential for going forward to be aware of different kinds of activities and behavior. The education sector is a separate environment specialized for working on daily bases processes of service for Nations future, they have distinct processes of dealing with the students which are dispersed from other organizations.

## 2 Literature Review

### 2.1 Emotional Intelligence

EI contains a combination of aptitudes that allow a person to be aware of, to know, and to be in control of their own emotions, to identify and recognize the emotions of others, and to use this knowledge to foster their success and the success of others (Kimani et al., 2019). EI, as an aspect of public intelligence, was explained as the capability of considering one’s own and others’ emotional state, conveying one’s sentiments, utilizing and handling them (Cobb and Mayer, 2000; Salovey and Mayer, 1990).

	<b>Self</b>	<b>Others</b>
<b>Recognition</b>	<b><u>Self - Awareness</u></b> <ul style="list-style-type: none"> <li>• Emotional Self - Awareness</li> <li>• Self - Confidence</li> </ul>	<b><u>Social Awareness</u></b> <ul style="list-style-type: none"> <li>• Organizational Awareness</li> <li>• Cultural Understanding</li> <li>• Empathy</li> </ul>
<b>Regulation</b>	<b><u>Self-Management</u></b> <ul style="list-style-type: none"> <li>• Adaptability</li> <li>• Emotional Self - Control</li> <li>• Positive</li> </ul>	<b><u>Team Management</u></b> <ul style="list-style-type: none"> <li>• Communication</li> <li>• Conflict Management</li> <li>• Teamwork</li> </ul>

Dimensions of Emotional Intelligence

The capacity to deliberate ones own sentiments and emotions, producing a notable link among them and utilizing the data concluded from in ones self actions and rational. Therefore, EI is a vital gathering of a series of skills, such skills as the person be able to sustain his motivation and struggle against difficulties, delay his impulsivities and control them, regulate his own

attitudes, do not let the confusion fail the power of thinking, identification with others and be hopeful (?).

## 2.2 Leadership

Leadership is not “one size for all” type thing, and its styles vary significantly among effective leaders. Leadership has a straight impact on active worker involvement. Leadership style in a group is one factor that imprints a substantial role in upgrading or hindering the interest and obligation of the employees in the organization.

Leadership is a great tool or weapon of the organization to achieves its goals and its essential points and without it, it is unrealistic for the organization to achieve its main goal. Without the leadership the application of tasks and their accomplishments are dreadful (Mills, 2005).

### 2.2.1 Perceived Leadership

To know how employees see their leaders, it is obvious to know, how they interpret the knowledge and how do they understand the performance of the employees in various conditional perspectives. Theory of Implicit Leadership, that is most proper and related to the current learning, has been studied by Robert Lord and his associates (Hall and Lord, 1995; Lord et al., 1986; Lord and Hall, 1992) that describes leadership as the method of being perceived by employees (Lord and Hall, 1992). This concept fears the valuation that people make about leaders and also the intellectual method that inspires the valuations and views of headship (Recognition based method) and results of actions (Inference based method).

Full ranged leadership is by far the highest research quality to empirically identify the influence of leadership on sub ordinates performance (Judge and Piccolo, 2004; Wright et al., 2012). Research is done as a step toward integrating common ideas into leadership (Antonakis and House, 2013), and findings can take into account current theories, how these styles are aligned with workplace performance. From a career development perspective, leadership styles are elastic and can be altered through interventions (e.g., executive coaching and training). Therefore, organizations can change the leadership style to make effective workplace progress.

Furthermore, as younger workers (such as idealized performances) show a better level of parenting development in their growth, leaders expressing these views will be positively evaluated for their change in the workplace (Holt and Marques, 2012).

## 2.3 Leadership and Employee Performance

Leadership has a constructive impact on employee performance (Shahab and Nisa, 2014) and therefore plays vital roles to ensure the growth of an organization and individual performance (Gul et al., 2012).

In order to inspire and encourage subordinates extra-role behaviors, leaders may consider stand-in as ideals for their dependents by representing astonishing technical skills, being obstinate in tackling problematic tasks, and by admitting the employees worth and efforts (Srithongrungrung, 2011). As an outcome of this, employees will be inspired to put in more energy to enhance their performance.

Other investigators have also confirmed the consequence of leadership on performance. For example, McCann et al. (2014) proposed that at its best, leadership motivates and inspires employees to effort hard towards organizational ideas and help the organization flourish. Armstrong further signposted that high performance comes about as a product of suitable perfor-



mance, especially flexible behavior and the effective use of obligatory skills, knowledge, and aptitudes which is influenced among other things by leadership style. Thus, employees choose to accomplish the tasks as a result of their identification with the leader.

This confirms a survey by Paracha et al. (2012) who after a study to determine whether leadership style (transformational and transactional) has an influence or able to influence employee performance found that there is a noteworthy positive association between the leaders of the style implement and employee performance and therefore vital that organizations carefully investigate the kind of style they adopt if they want to increase employee performance.

## 2.4 Conceptual / Theoretical Framework

The theoretical framework of the study was influenced by the early work of Salovey and Mayer (1990) and Goleman et al. (2002) who proposed 2 EI models that have set the ground-work for continued research in the area of EI. While these 2 theoretical frameworks underlined business leadership, more newly the construct of EI in education, specifically the EI of students, teachers, and leaders, have become topics of focus for research. Nelson and Low (2011) theoretical framework of EI emphasizes its importance in the field of education.

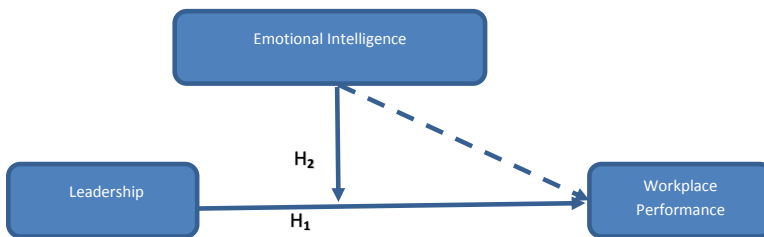


Figure 1: Theoretical Diagram

The study is intended to determine the impacts of leadership styles which influence the performance which is the dependent variable and there is also the influence of EI as a moderating variable that impresses the relationship between these two determined variables.

## 2.5 Hypotheses

According to (?) the study determines that the leaders are revealing the correct leadership styles even though it is not influencing the performance of the employees. The leadership styles (Transformational and Transactional) are complementary styles that when exhibited appropriately, should step forward to the peak performance levels of employees. The employees do not essentially depend so much on their leaders in executing their duties. The employees admired the leaders style of leading but that does not result in higher performance. Implying that, there are further aspects that needed to be measured in order to attain the highest performances of the employees (?).

*H<sub>1</sub>: Leadership style will have a positive significant effect on workplace performance.*

Effective leadership needs an extensive range of skills. EI is one skill that may lead principals as they struggle to more effectively see the necessities of students. Based on the outcomes

of a general hypothesis, it can be compiled that there is a significant relationship between EI and an open leadership style. It shows that principals with high EI apply open leadership style more and try best to create enthusiasm among their employees, also hearten others greatly to make them keep on trying.

*H<sub>2</sub>: EI will play a positive moderating role between leadership style and workplace performance.*

## 3 Research Methodology

### 3.1 Participants

This study evaluates 260 employees of the education sector in Quetta city through questioner which many researchers have utilized in previous studies. The cause of the selection of the education sector is to improve the quality and productivity of education in Quetta city. Therefore, the study will examine the predetermined variables in the education sector of all employees. The most experienced size for this study is (200-300) and this study contains 300 participants, the sampling technique convenience (non-probability) is utilized for the data collection due to time limit and for better access to information. 25 well-known school employees to be invited to participate in the study by filling questionnaires.

### 3.2 Instruments / Scales

#### 3.2.1 Perceived Leadership

The author used different criteria for acceptable leadership, MLQ6X (Bass, 2000), a 360-degree tool that consists of two portions. The first portion is the self-evaluation of the leaders and their leadership style. While, the second portion is for the sub-ordinates, peers, or bosses to report their perception about the immediate peers, sub-ordinates, or supervisors.

Four factors are measured by MLQ-6X in transformational leadership (Bass et al., 2003), (a) intellectual awareness, (b) personal thinking, (c) charisma (outstanding qualities and behaviors), and (d) inspirational stimuli. Intellectual motivations encourage viewers to ask the status quo and encourage them to ask their own ways and find ways to expand ideas (Weinberger, 2003).

This study uses the MLQ Form 6S, offering an explanation to leadership style. 21 expressive declarations are itemized below. It judges in what way regularly each statement fits. The MLQ Form measures the leadership on 7 factors associated with leadership. Each factors score is resolute by summing 3 stated items on the form. For instance, to determine the score for 1st factor, Idealized Influence, add the replies for items 1, 8, and 15. Complete this process for all 7 factors.

#### 3.2.2 Emotional Intelligence

The 16-point WIEIS self-report, which is based on (Salovey and Mayer, 1990) was used. This Emotional Intelligence model is a 4-D measuring model, i.e., (i) Self-Emotional Assessment (SEA) measure of their personality to understand their emotions. (ii) Others Emotional Appraisal (OEA) parameter exists to recognize and understand other people's emotions. (iii) Use of Emotion (UOE) tendencies to express yourself for performance enhancement and (iv) Regulation of Emotions (ROE) assesses the ability to handle emotions (Fukuda et al., 2011). In this study, for the Emotional Intelligence test, WIEIS (Wong and Law Emotional Intelligence Scale)

is used, which is already used by many researchers, it is a short 16-item measure of Emotional Intelligence, used in research and practice in management. WLEIS is designed to measure emotional intelligence based on the capability model.

### 3.2.3 Employee Workplace Performance

Employee Workplace Performance Questionnaire designed by [Tabouli et al. \(2016\)](#) based on some previous studies ([Nassazi, 2013](#)). The first dimension, Efficiency of the work, comprises 4 items, and the second dimension, Planning the Work, consists of 4 items, while the third dimension, Creativity and Innovation, has 5 items, last dimension making efforts comprises 4 items. Thus, totaling a number of 17 items for the questionnaire used for measuring employee performance.

## 3.3 Procedure

### 3.3.1 Sample and Data Collection

The case contained high school employees focusing their perceptions about their leaders. The sample size comprised of partakers who joined the survey. About 260 high school employees were requested to take part in the survey; where 245 employees returned the questionnaire and 13 out of them were removed due to deficiency on inspection quality. A suitable sample size of 232 employees was analyzed as a subset of the overall population estimated as 3,000 high school employees in Quetta. The study focused on employees working in high school from Teaching and Non-Teaching professions. The convenient population included partakers that were willing to be a part of the survey. Traits of the taster population had a resemblance to the target population. Because the performance of the participants in the school was similar to those of the other schools, the suitable sample size may be representative of the target population. Information gathered from those 232 questionnaires were analyzed through the SPSS (v. 25.0) statistical packet program using regression correlation analysis.

### 3.3.2 Analysis

The data collected for this study from high school employees through questionnaires is to be analyzed through Statistical Package for the Social Sciences (SPSS V. 25.0), with the help of add-on processes to SPSS and IBM Amos (V. 24.0). Kaiser Meyer Olkin (KMO) was used to verify data validity. For factor analysis: the KNIO value has to be at least 0.70. Principle component analysts and Varimax rotation were performed. Nothing was left out in beginning, after loading factors, 6 questions were eliminated because their factor load value was below 0.50. During these, the factor was analyzed after every-thin was finished. At the end of factor analysis and elimination of some issues, MLQ remained with 3-Ds. After this procedure, reliability analysis was performed for each dimension. Because the third dimension had a lower KMO value (0,49) the third dimension was removed, and all processes were repeated again. In the back court: MLQ was left with 2-Ds- The first one consisted of 8 points and the second one consisted of 5 items. To understand the results of the reviews, it can be said that the school staff perceived their leaders.

## 4 Results & Discussions

### 4.1 Results

Table 4.1: Validity and Reliability: Validity Measures, Correlations, Reliability, Means, Standard Deviations, Correlations

	CR	AVE	MSV	PL	EI	WP
PL	<b>0.85</b>	<b>0.715</b>	<b>0.561</b>	<b>0.79</b>		
EI	<b>0.831</b>	<b>0.681</b>	<b>0.232</b>	0.254**	<b>0.802</b>	
WP	<b>0.742</b>	<b>0.633</b>	<b>0.534</b>	0.929**	0.313**	<b>0.769</b>
MEAN				3.46165	2.32294	1.47492
SD				3.84339	2.86494	1.13938

\*\* Correlation is significant at the 0.01 level (2-tailed).

Table 1 shows that Confirmatory Factor Analysis (CFA) has been used to validate the scale. Because, the scale was adapted and used without any modifications, only CFA was sufficient. As per the criteria suggested by [Hair Jr et al. \(2010\)](#) and [Malhotra et al. \(2013\)](#), the overall model represents high reliability as all the Composite Reliability (CR) values are above 0.7. The scales also indicate discriminant validity as the Average Variance Extracted (AVE) are all above 0.5. The scales also have convergent validity as all the AVE values are greater than Maximum Shared Variance (MSV). Thus, the whole measurement scales were valid and reliable.

In addition, the overall model fit is also acceptable ((CMIN/DF=2.17; RMR=.651; GFI=.934; NFI=.94; CFI=.93; RMSEA=.073) as per the cutoff criteria are given by Hu and Bentler (1999).

### 4.2 Results of Moderation Analysis

#### Summary of the Variables in PROCESS Macro

Model NO 1: Moderation in PROCESS  
 Dependent Variable: WP  
 Independent Variable: PL  
 Moderator: EI

#### Results of the Moderation Analysis

Summary of Model: PL (IV) and WP (DV)

Table 4.2: Model Summary

<b>R</b>	<b>R2</b>	<b>MSE</b>	<b>F</b>	<b>P</b>
0.9335	0.8715	0.1716	237.404	0

*Model Coefficients: Interaction*

Table 2 outputs shows the results of the regression that relationship between PL (IV) and WP (DV) which is positively significant, where  $F = 237.404$ ,  $P < 0.05$ ,  $R^2 = 0.87$ .

Table 4.3: Coefficients of the Regression Estimates and Interaction

	<b>Coefficients</b>	<b>SE</b>	<b>T</b>	<b>P</b>	<b>LLCI</b>	<b>ULCI</b>
Constant	1.4889	0.0411	36.2569	0	1.4075	1.5703
PL	0.2695	0.0107	25.1328	0	0.2482	0.2908
EI	0.0345	0.0144	2.389	0.019	0.0059	0.0631
Int_1	0.005	0.0038	1.3175	0.02	0.0126	0.0025

The t test result shows that PL has positive significant effects on WP, where a 1-unit change in PL causes 0.2695 change in WP, where  $b_1 = 0.2695$ ,  $t = 25.1328$ , and  $p < 0.05$ . Where a 1-unit change in EI causes 0.0345 change in WP, where  $b_2 = 0.0345$ ,  $t = 2.389$ , and  $p < 0.05$  and the interaction of EI and PL has positive significant effects on WP, where a 1-unit change in XM causes 0.005 change in WP, where  $b_3 = 0.005$ ,  $t = 1.32$ , and  $p < 0.05$ .

Table 3 illustrates the correlation among model variables. Based on this, there is a positive and direct relationship between PL and WP moderated by EI and it can be stated with a 95% confidence level that the higher EI the leader has, the more he/she would organize, which will encourage employee’s performance. The variables in the table, correlation model is given together which can be with a 95% confidence level that all indexes have a positive and direct relationship with each other since the level of significance level for all the parameters are below 0.05.

### 4.3 Graphical Representation

The graph confirms the results from the simple slops analysis. It shows that the direction of the relationship between perceived leadership and workplace performance is positive. Specifically, the orange line indicates a progressive improvement by EI on WP. Additionally, the fact that the lines indicate a significant interaction effect (moderation). So basically, we can conclude that the relationship between PL and WP is positively influenced by the effect of EI.

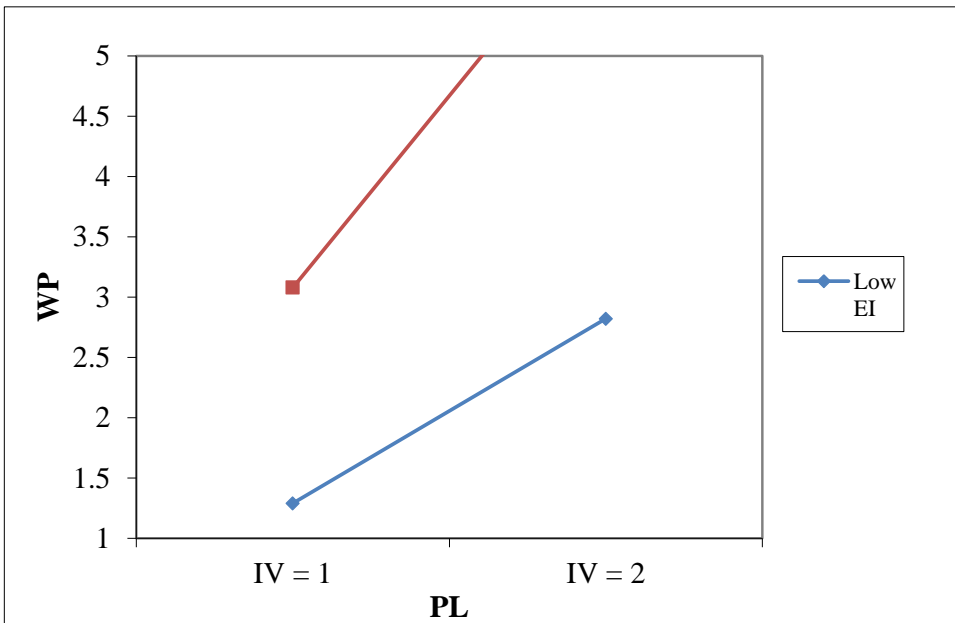


Figure 2: Interaction Plot

#### 4.4 Discussion

Results were produced to deliberate the study's discoveries, advise theoretical and practical consequences, and mention upcoming studies. To continue to light the mandate for improved performance of the school, leaders must strengthen and develop confident skills to help train a campus to effectively meet the requirements of Federal and Local government.

The primary component of EI explained by [Salovey and Mayer \(1990\)](#) like the capability to be self-aware of emotions and to be able to show emotions and emotional needs precisely to others. They also observed that this includes an ability to differentiate between inaccurate and accurate expressions of emotions, and between dishonest and honest expressions of emotions by others. The issue of EI is chiefly suitable in the context of the current article because EI is an initial point for coping with the perceptions that evolve from employee performance. In other words, subordinates' feelings related to performance drive the behavioral and emotional consequences that follow. The capability to diagnose others' emotions and the seriousness of those emotional expressions is also of use in coping with perceptions of employee performance.

EI is the capability to manage the state of mind, so that they are articulated effectively and appropriately, empowering subordinates to do teamwork smoothly to achieve common goals and that it not only separates outstanding leaders but can also be related to the strong presentation. This was related to [Goleman et al. \(2002\)](#) supporting this impression by hypothesizing that leaders mastering their own emotions are much better able to manage with modification and help organizations successfully move forward.

[Nelson and Low \(2011\)](#) had hypothesized that EI is the most significant prompting variable in leadership and career achievement. Their theoretical framework is grounded on the confidence that people who are emotionally intelligent, have the capability to behave intelligently

and deliberate fruitfully and thus can advance these skills to increase excellence in their career. The results of this research confirm that leaders felt that with time, a leader with a high EI must have a significant correlation with workplace performance.

The outcomes of the hypotheses agree and confirm consequences from preceding surveys that leadership is a critical issue in the victory or disaster of an organizations performance. First-rate administrations begin with brilliant leadership and effective organizations reflect their leadership. EI has been related to the leader and employee presentation in diversity in business situations (Browne Graves, 1999; Cavallo and Brienza, 2002; Lam and Kirby, 2002; Sosik and Megerian, 1999).

The second hypothesis examined the combined result of the magnitudes of headship behavior resulting in EI and WP. 4 proportions of leadership EI, Inspirational motivation, Intellectual stimulation, and Individual consideration, had a unique and significant impression upon the EI of leaders in this survey.

Waqas (2012) conducted a survey on the influence of a leader on employee workplace outcomes in Pakistan. They investigated 6 private schools for the 250 samples size of employees, Regression and correlation were performed to investigate the data. The results showed that leaders have a positive and significant association on employee workplace performance. Kiyani et al. (2013) investigated EI and employee workplace outcomes by studying the relationship between emotional leadership and employee outcomes in Pakistan, they steered a survey and the sample was 300 workers, including a managerial and non-managerial workforce of 4 leading software companies and two telecom companies in Islamabad, Pakistan. Statistical and descriptive analysis and regression analysis were used in this study also concluded that the role of EI on the leader is a vital thing about the performance of employees.

Regression studies indicate that the ability of employees to understand themselves and understand the emotions of others is better identification of employee outcomes. From an optional perspective, if one needs to be a credible leader, the importance of responsibility, pride, and credibility, the importance of special needs, the and aspirations of the purple, reward for performance. for being involved, he successful, so one important thing is to clearly identify and recognize the employee's sentiments. EI examination may expand an organization's capability to guess an effective leader, who may bring about a creative group and who may be pleased with their job but may not sidestep concern or be inattentive when required.

Effective leaders that are capable to bring about constructive and damaging emotions within themselves and within others are intelligent to make a dream for the upcoming time, offer inspiration, talk optimistically, and meaning, arouse in others new ways of responsibilities, inspiring new concepts and intrude in difficulties earlier then they turn out to be serious. EI may cause the capacity of the leader to be intellectually stimulating and inspirationally encouraging. Another study that investigates the relationship between EI and leadership m senior and middle leaders. Although the results of the study provide an important platform for examining the relationship between different leadership styles and EI, these leaders should also explore the relationship between EI and minutes of workplace performance. It so requires a 360-degree workplace emotional scale that meets workplace emotional intelligence standards.

## **5 Conclusion & Recommendations**

### **5.1 Conclusion**

The present study was an attempt to explore the impact of perceived leadership on employee performance outcomes. Secondly, this study was conducted to examine the impact of EI as a moderator between leadership style and workplace outcome, so that it was considered that leadership was associated with outcomes and job opportunities. Based on the statistical data analysis and analysis obtained for the hypothesis testing presented in this study, the final conclusions are as follows:

The outcomes of this case study firstly show that PL has a positive impact on WP. PL has been found significant as it delivers an admirable framework to look at how employees see their managers. Research findings propose that this intuition is correct in that leaders build solid relationships with their employees. Therefore, it is important to provide a leadership assessment that is not too harsh and unhelpful to achieve successful results.

The second part shows that EI has a positive moderating role between PL and WP. The study shows a significant impact upon the WP of the subordinates through EI. The leader and employees with a high level of EI will strengthen the organizations and thus the quality will be the only outcome. The increased level of leadership and emotionally intelligent employees will put a vast impact on the socio-economic setup of the whole social network in emerging countries like Pakistan.

### **5.2 Implications**

#### **5.2.1 Theoretical Implications**

Apart from the significance of statistical results, this study conducted as a review of the literature displayed very few research studies investigating the role of EI of a leader of high schools in relation to WP. The study may open a new path for investigation in the field, by shifting the investigations from typical to a modern way of improvement by introducing, identifying and implicating new variables in the field of study. Thus, the current study plays a significant role in improving quality education in the future. And promoting manpower in terms of performance and recruitment.

### **5.3 Practical Implications**

This study develops, supports, and increases the leaders EI skills to become a better and effective administrator. EI skills can also be developed, strengthened, and improved through professional development opportunities like continuing for higher education, workshops, and staff development. The organizers may plan workshops to enhance and strength the new administrators EI and meet regularly as a group. Administrators would learn precise skills during the workshops and be given certain tasks to complete in their campus between workshops. The organizers would work one on one with administrators as they accomplish their goals. At the end of the academic year, all the participants may take the EI assessment again. The aim of the program would be to strengthen, develop and enhance an administrators EI to prove him/her in becoming an active and effective leader.



## 5.4 Recommendations for Further Research

This study's limitations, delimitations, and assumptions provide openings for further research in the field of education and human empowerment. To increase the generalizability of the results, it is recommended that:

- The study may be replicated with a more heterogeneous sample;
- The study only conducted on high school leaders,
- The replication of the study using different measures for emotional intelligence and workplace performance;
- Conducting both quantitative and qualitative studies from the perspectives of a leader's emotional intelligence in relation to employee workplace performance

## 5.5 Limitations

Due to the nature of cultural norms and related fields, some numbers of the group were too small for a dependable conclusion. Also, the sample of the study comprised high schools with a restricted quantity of workers, which may not signify the complete schooling division of Quetta city.

## References

- Abdulmajeed, H. K. (2016). Detecting the effectiveness of two tools for detecting the talented from their teachers' points of view. *Journal of College of Education for Women*, 27(1):175–194.
- Antonakis, J. and House, R. J. (2013). The full-range leadership theory: The way forward. In *Transformational and Charismatic Leadership: The Road Ahead 10th Anniversary Edition*. Emerald Group Publishing Limited.
- Bandura, A. (1997). The anatomy of stages of change. *American journal of health promotion: AJHP*, 12(1):8–10.
- Bass, B. M. (2000). The future of leadership in learning organizations. *Journal of leadership studies*, 7(3):18–40.
- Bass, B. M., Avolio, B. J., Jung, D. I., and Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of applied psychology*, 88(2):207.
- Bratton, V. K., Dodd, N. G., and Brown, F. W. (2011). The impact of emotional intelligence on accuracy of self-awareness and leadership performance. *Leadership & Organization Development Journal*.
- Browne Graves, S. (1999). Television and prejudice reduction: When does television as a vicarious experience make a difference? *Journal of Social Issues*, 55(4):707–727.
- Cavallo, K. and Brienza, D. (2002). Emotional competence and leadership excellence at Johnson & Johnson: The emotional intelligence and leadership study. *Consortium for Research on Emotional Intelligence in Organizations*, pages 1–12.
- Chamorro-Premuzic, T., Bennett, E., and Furnham, A. (2007). The happy personality: Mediation role of trait emotional intelligence. *Personality and individual differences*, 42(8):1633–1639.
- Cobb, C. D. and Mayer, J. D. (2000). Emotional intelligence: What the research says. *Educational leadership*, 58(3):14–18.
- Epstein, D. (1998). *Failing boys?: Issues in gender and achievement*. McGraw-Hill Education (UK).
- Fukuda, E., Saklofske, D. H., Tamaoka, K., Fung, T. S., Miyaoka, Y., and Kiyama, S. (2011). Factor structure of Japanese versions of two emotional

- intelligence scales. *International Journal of Testing*, 11(1):71–92.
- Fullan, M. (2002). Principals as leaders in a culture of change. *Educational leadership*, 59(8):16–21.
- Goldman, S. L., Kraemer, D. T., and Salovey, P. (1996). Beliefs about mood moderate the relationship of stress to illness and symptom reporting. *Journal of Psychosomatic Research*, 41(2):115–128.
- Goleman, D. (1995). Emotional intelligence. new york, ny, england.
- Goleman, D., Boyatzis, R. E., and McKee, A. (2002). The new leaders: Transforming the art of leadership into the science of results.
- Gragg, P. (2008). From theory to practice: Operation emotional intelligence. *Legal Reference Services Quarterly*, 27(2-3):241–253.
- Gul, S., Ahmad, B., Rehman, S. U., Shabir, N., and Razzaq, N. (2012). Leadership styles, turnover intentions and the mediating role of organizational commitment. In *Information and Knowledge Management*, volume 2, pages 44–51.
- Hair Jr, J. F., Babin, B. J., and Anderson, R. E. (2010). A global p-erspect-ivie.
- Hall, R. J. and Lord, R. G. (1995). Multi-level information-processing explanations of followers' leadership perceptions. *The Leadership Quarterly*, 6(3):265–287.
- Holt, S. and Marques, J. (2012). Empathy in leadership: Appropriate or misplaced? an empirical study on a topic that is asking for attention. *Journal of business ethics*, 105(1):95–105.
- Judge, T. A. and Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of applied psychology*, 89(5):755.
- Kimani, W. C., Andemariam, K., and Abraham, K. (2019). Assessment of cuea mba program contribution to greater emotional intelligence. *Journal of Education and Practice*, 3(1):58–80.
- Kirk, B. A., Schutte, N. S., and Hine, D. W. (2011). The effect of an expressive-writing intervention for employees on emotional self-efficacy, emotional intelligence, affect, and workplace incivility. *Journal of Applied Social Psychology*, 41(1):179–195.
- Kiyani, K., Saher, N., Saleem, S., and Iqbal, M. (2013). Emotional intelligence (ei) and employee outcomes: The mediating effect of authentic leadership style. *Interdisciplinary Journal of Contemporary Research in Business*, 5(1):394–405.
- Lam, L. T. and Kirby, S. L. (2002). Is emotional intelligence an advantage? an exploration of the impact of emotional and general intelligence on individual performance. *The journal of social Psychology*, 142(1):133–143.
- Lord, R. G., De Vader, C. L., and Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures. *Journal of applied psychology*, 71(3):402.
- Lord, R. G. and Hall, R. J. (1992). Contemporary views of leadership and individual differences. *The Leadership Quarterly*, 3(2):137–157.
- Love, P., Edwards, D., and Wood, E. (2011). Loosening the gordian knot: the role of emotional intelligence in construction. *Engineering, Construction and Architectural Management*.
- Malhotra, N., Dash, S., Kumar, R. S., and Purwar, P. C. (2013). The nature and antecedents of brand equity and its dimensions. *Marketing Intelligence & Planning*.
- Maulding, W. S. (2002). Emotional intelligence and successful leadership.
- McCann, J. T., Graves, D., and Cox, L. (2014). Servant leadership, employee satisfaction, and organizational performance in rural community hospitals. *International Journal of Business and Management*, 9(10):28.
- Mills, D. Q. (2005). Asian and american leadership styles: How are they unique. *Harvard Business School Working Knowledge*, 27:1–6.

- Naseem, K. (2018). Job stress, happiness and life satisfaction: The moderating role of emotional intelligence empirical study in telecommunication sector pakistan. *J. Soc. Sci*, 4(1):7–14.
- Nassazi, A. (2013). Effects of training on employee performance.: Evidence from uganda.
- Nelson, D. B. and Low, G. R. (2011). *Emotional intelligence*. Boston: Prentice Hall.
- Paracha, M. U., Qamar, A., Mirza, A., Hassan, I.-u., and Waqas, H. (2012). Impact of leadership style (transformational & transactional leadership) on employee performance & mediating role of job satisfaction. study of private school (educator) in pakistan. *Global Journal of Management and Business Research*, 12(4):55–64.
- Rezvani, A., Chang, A., Wiewiora, A., Ashkanasy, N. M., Jordan, P. J., and Zolin, R. (2016). Manager emotional intelligence and project success: The mediating role of job satisfaction and trust. *International Journal of Project Management*, 34(7):1112–1122.
- Salovey, P. and Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, 9(3):185–211.
- Selçuk, G. S., Çalışkan, S., and Erol, M. (2007). Learning strategies of physics teacher candidates: Relationships with physics achievement and class level. In *AIP Conference Proceedings*, volume 899, pages 511–512. American Institute of Physics.
- Sellers, L. C. (2017). Leadership strategies and employee performance within small business.
- Shahab, M. A. and Nisa, I. (2014). The influence of leadership and work attitudes toward job satisfaction and performance of employee. *International Journal of Managerial Studies and Research*, 2(5):69–77.
- Somazo, M. (1990). Social intelligence and likeability. *Unpublished doctoral dissertation, The Florida State University College of Arts and Sciences, Florida, USA*.
- Sosik, J. J. and Megerian, L. E. (1999). Understanding leader emotional intelligence and performance: The role of self-other agreement on transformational leadership perceptions. *Group & organization management*, 24(3):367–390.
- Srithongrung, A. (2011). The causal relationships among transformational leadership, organizational commitment, and employee effectiveness. *International Journal of Public Administration*, 34(6):376–388.
- Stephens, T. and Hermond, D. (2009). The level of emotional intelligence in principals of recognized and acceptable schools. *Academic Leadership: The Online Journal*, 7(3):17.
- Tabouli, E. M., Habtoor, N., and Mohammad Nashief, S. (2016). Employee performance scale: Using (cfa) on jumhouria bank in libya. *International Journal of Science and Research*, 5(6):735–9.
- Waqas, H. (2012). Impact of leadership style (transformational & transactional) on employee performance & mediating role of job satisfaction. Available at SSRN 2486605.
- Weinberger, L. A. (2003). *An examination of the relationship between emotional intelligence, leadership style and perceived leadership effectiveness*. PhD thesis, Citeseer.
- Wright, B. E., Moynihan, D. P., and Pandey, S. K. (2012). Pulling the levers: Transformational leadership, public service motivation, and mission valence. *Public Administration Review*, 72(2):206–215.

# Comparative Analysis of Risk Management Practices of Commercial Banks in Afghanistan

Waqas Khan\*<sup>1</sup> & Muhammad Tahir<sup>2</sup>

<sup>1</sup> *Kardan University, Kabul, Afghanistan*

<sup>2</sup> *University of Technology and Applied Sciences, Nizwa, Oman*

---

**Abstract.** The main objective of the study was to compare the risk management practices of public and private banks and rank different types of risks faced by public and private banks in Afghanistan banking sector. The study empirically tested the level of efficient risk management practices in the banking sector of Afghanistan. A representative sample of 110 individuals was used from both public and private banks. The analysis was based on correlation, regression analysis, and t-statistics. The findings suggest that private banks are more efficient than public banks in terms of risk assessment and analysis, risk monitoring, and credit risk management. Furthermore, RAA, RMON, and CRA are the significant determinants of RMPS. Overall, there is no significant difference in the risk management practices of public and private banks. The study found credit risk, country risk, and liquidity risks as the major risks for the banking sector in Afghanistan. Financial statement analysis, audit and physical staff, and value at risk analysis are the three top instruments respectively for the assessment of risk. This study is the first attempt to understand and analyze the risk management practices of the banking sector of Afghanistan, the results of which will assist various stakeholders of the banking industry in their decision-making process.

**Key words:** Risk management practices, risk identification, risk monitoring, risk assessment, Da Afghanistan Bank (DAB), Credit risk, Liquidity risk.

---

## 1 Introduction

In today's financial markets, especially the banking sector, nothing is persistent but risk. [Shafiq and Nasr \(2010\)](#) defined risk as anything that can create hindrances in the way of achievement of certain objectives. A particular situation decides on the type of risk which may be caused due to internal or external sources. Banks are exposed to several risks ranging from simple operational risks to sophisticated market and credit risks. With such exposure to diverse risks, the core operations of banks should be to manage such risks. That is why effective risk management is more important in the financial industry compare to any other major industry ([Carey and Hrycay, 2001](#)). There have been some recent banking failures due to poor management of risks like Fayette County Bank (2017), The Bank of Georgia (2015), Kabul Bank (2010), Colonial

---

\*Corresponding author.

Email: w.shinwari313@gmail.com

bank (2009), and Washington Mutual (2008). Such failures put a question mark on the performance of risk management practices in the banking sector. To assure the reliability and quality of operations and processes, the Basel Committee has been working since 1988. For standardized banking supervision, Basel Committee has given Basel I (1988), Basel II (2004), and Basel III accord (2010).

Effective and efficient risk management practices are considered the basis of the banking sector (Hussain and Al-Ajmi, 2012). Sensarma and Jayadev (2009) found risk management practices as a factor affecting banks stock returns. Risk management practices create value for banks and that's why it should be given considerable focus in the integral processes of banks. The survival of banks is dependent on banks risk exposure management (Fadel and Al-Ajmi, na). To mitigate the possibility of future losses it is a must for banks to use contemporary risk management practices (Khalil et al., 2015) and the banking sector of Afghanistan is no exception. A total of 14 commercial banks operate in Afghanistan (Da Afghanistan Bank - Central Bank of Afghanistan). Out of these 14 banks, 3 banks are state-owned, 3 are foreign banks branches, and 8 are private banks. Regulation and supervision of these banks are conducted by the central bank of Afghanistan, Da Afghanistan Bank (DAB). After the Kabul bank scandal in 2010, the DAB took a series of steps to improve its regulations and supervision and Basel II was implemented to standardize banking practices across the country. The central bank of Afghanistan is still facing challenges in the full implementation of Basel II. Some major challenges for financial markets include lack of human capacity, implementation of risk management guidelines, security situation, growth of informal financial markets, lack of government support, lack of anti-money laundering mechanism, and over the counter illegal transactions (Khan et al., 2018). These obstacles limit the financial growth of the banking sector of Afghanistan. To improve the financial performance banks must understand and analyze their risk exposure. Such an understanding and assessment of risk exposure is possible with the proper application of risk management practices.

In continuation of risk management literature, this study explores the current practices of risk management in the banking sector of Afghanistan. The study compares the risk management practices of public and private banks and ranks different types of risks faced by public and private banks. The research study empirically tested the level of efficient risk management practices in the banking sector of Afghanistan. The contribution of the study (significance) is that it adds to the literature of risk management in Afghanistan and reduce the gap as risk management in the banking industry is also context-dependent. Furthermore, it also provides useful insights about risk management which can be used by academicians and practitioners. The findings are particularly useful for the management of banking sector organizations in assessing and managing risk management in the Afghanistan context.

## 2 Literature Review

This section of the study discusses the brief review of relevant literature to the area of risk management. Empirical studies related to risk management practices are comparatively infrequent (Fatemi and Fooladi, 2006). Shafique et al. (2013) defined risk as inconsistency of returns related to a specific asset. Meulbroek (2002); Smithson and Simkins (2005); Tufano (1998) believe that risk management organization, through mitigating volatility of cash flow, financial distress losses, and the tax burden, can create value for financial institutions. Risk management is a systematic and methodic process (Ojasalo, 2009). ISO-IEC (2002) considers that risk management

practices (RMPs) are very important for the strategic management of the organization. RMPs should be integrated into the core operations of financial institutions to achieve their goals. Such integration should be a continuous process where proper monitoring and control is ensured.

Hahm (2004) investigated the exchange rate and interest rate exposure of Korean banks before the Asian economic crisis of 1997. He found out that commercial banks performance is related to pre-crisis risk exposure. According to Hahm (2004), it is important to improve the regulation, supervision, and risk management practices of banks for safeguarding effective financial liberation. Berg (2010) studied the major factors affecting price fluctuations in the 2007-08 financial crises and found credit risk and market risk as the causes affecting price fluctuations. Al-Tamimi (2002) studied the commercial banks in the UAE. The objective of the study was to find out the degree to which commercial banks use RMPs. The study reported that the main risk faced by these banks was credit risk while the main method of risk identification was bank managers inspections and analysis of financial statements. Al-Tamimi and Al-Mazrooei (2007) compared the risk management practices of national and foreign banks in the UAE. The study found that these commercial banks face three major types of risks including foreign exchange rate risk, credit risk, and then operational risk. These banks are found to be efficient in risk management practices. These two studies suggest that over time the nature and types of risks faced by commercial banks changed. With the evolving nature and types of risks, the risk management practices evolved as well. Shafique et al. (2013) analyzed the comparative risk management practices of conventional and Islamic financial institutions. The study found that overall RMPs are not different in both conventional and Islamic financial institutions of Pakistan. The result is in line with the findings of Hussain and Al-Ajmi (2012). The study further concluded that credit risk, equity investment risk, market risk, liquidity risk, rate of return risk and operational risk management practices in Islamic financial institutions are not different from the practices in conventional financial institutions.

### 3 Research Methodology

#### 3.1 Data Collection Instrument

The study used the questionnaire used by Hussain and Al-Ajmi (2012), which is the modified version of the questionnaire developed by Al-Tamimi and Al-Mazrooei (2007) and Hassan (2009). The questionnaire consists of three major parts. The first part is about the demographics of the respondents and the banks in which they work. The second part is about the six dimensions of risk management including understanding risk and risk management (URRM), risk identification (RI), risk assessment and analysis (RAA), risk monitoring (RMON), risk management practices (RMPs), and credit risk analysis (CRA). There is a total of 51 statements collectively for six dimensions of risk management. Out of these 51 statements, eleven statements are related to URRM, 5 to RI, 7 questions to RAA, 5 questions to RMON, 15 questions to RMPs, and 8 questions are related to CRA. For these statements, a seven-points Likert scale has been used to find the respondents level of agreement. The third part asks two close ended questions; first question is about ranking risks faced by banks while second question is to find risk identification methods. First question is based on ordinal scale while the second is a binary scaled question. Responses from this section are classified into two portions i.e. private and public banks.

## 3.2 Sampling and Data Collection

The Islamic Republic of Afghanistan has a total of 14 commercial banks, of which 3 are public while the rest are privately owned banks (Banks - Da Afghanistan Bank - Central Bank of Afghanistan, n.d.). Out of the privately owned banks, 3 are foreign banks. The study sample targeted all these 14 commercial banks operating in Kabul city only. The questionnaires are handed over to banks staff as the sample is not restricted to specialists from the risk management department. In today's complex and sophisticated banking industry, it is not the job of the risk specialists only but every staff member of the bank needs to understand the nature of risks faced, banks risk appetite, and risk management systems of banks (KPGM International, 2009).

A total of 125 questionnaires were distributed through personal visits in the risk department of these banks, out of which only 110 questionnaires were received with no missing data. The response rate for the complete questionnaire is 88%. Considering the higher response rate, the study analyzed the evidence of non-response biases by finding the difference between early 30 and late 30 respondents. The analysis found out that there is no significant difference in answers to questions between the early 30 and late 30 respondents.

## 4 Results

### 4.1 Demographic Analysis

The demographic characteristics of the respondents are shown in the following Table 4.1.

A total of 110 respondents participated through a survey questionnaire, out of which 74.5% are male and the rest 25.5% are female. According to World Bank data on female labor force percentage, out of the total labor force of Afghanistan, is only 17.4% for the year 2018. Our study made sure to take on female respondents above 17.4%. The respondents include all three levels of management, where middle management has a higher representation of 55.5%. Table 4.1 shows 56.4% of respondents are from public banks while 43.6% are private banks employees. It can also be seen that the majority of our respondents are undergraduate and graduate-level employees, strengthening the presumption that respondents have an understanding of risk and risk management practices.

### 4.2 Reliability Analysis

For measuring the consistency in the respondents answers, the study checked the reliability of the data instrument with the help of Cronbachs  $\alpha$ . Cronbachs  $\alpha$  helps in measuring the reliability of the questions used in the questionnaire. As a general rule, an instrument with a value of 0.6 or above is acceptable and a good indication of construct reliability.

The questionnaire used in the study has 51 questions for the six measures of risk. Values for URRM, RI, RAA, RMON, RMP, and CRA are 0.623, 0.721, 0.827, 0.846, 0.900, and 0.797 respectively. These values show that each of the variables has a value above the acceptable level and the instrument used is reliable and there is an acceptable level of consistency among the six aspects responses.

Table 4.1: Demographic Characteristics of Respondents

<b>Attributes</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Gender</b>		
Male	82	74.5
Female	28	25.5
<b>Position</b>		
Top Management	25	22.7
Middle Management	61	55.5
Lower Management	24	21.8
<b>Length of Experience</b>		
Less than 5 years	52	47.3
Less than 10 years	45	40.9
less than 15 years	10	9.1
above 15 years	3	2.7
<b>Type of Bank</b>		
Public	62	56.4
Private	48	43.6
<b>Qualification</b>		
Matriculate	2	1.8
Undergraduate	68	61.8
Graduate	39	35.5
Post-Graduate	1	0.9

*Source: Authors Compilation*

### 4.3 Normality of Data

For checking the normality of the data, the study employs visual inspection through histogram and Quantile-Quantile (Q-Q plots). A bell-shaped histogram suggests the normality of data. In Q-Q plot, observations or quantiles lying on the straight-line signaling normality of

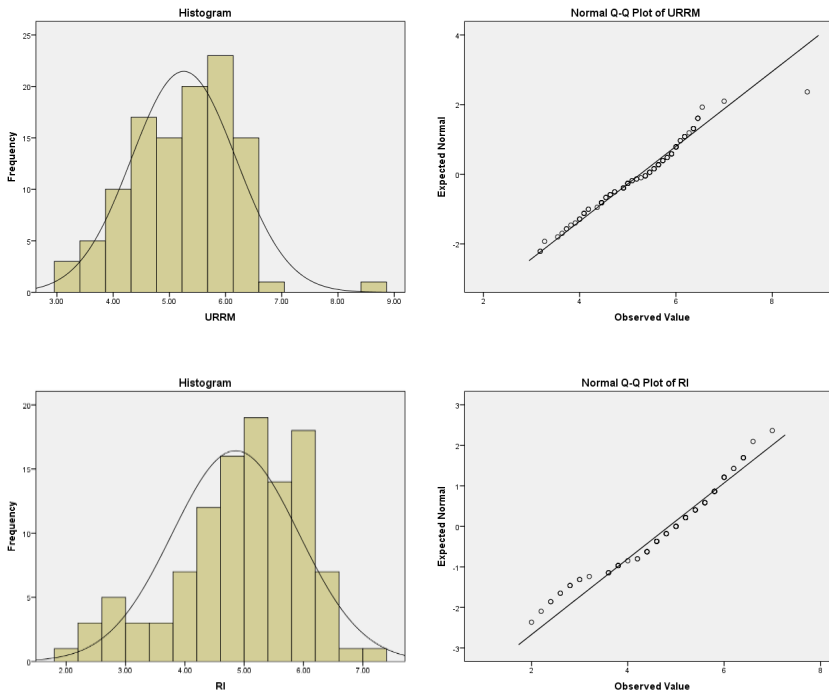


Table 4.2: Reliability Analysis of Data Instrument

S. No	Risk Measurement Aspects	Cronbach's $\alpha$	No. of Items
1	Understanding Risk and Risk Management (URRM)	0.623	11
2	Risk Identification (RI)	0.721	5
3	Risk Assessment and Analysis (RAA)	0.827	7
4	Risk Monitoring (RMON)	0.846	5
5	Risk Management Practices (RMP)	0.900	15
6	Credit Risk Analysis (CRA)	0.797	8

Source: Authors Compilation

data.



The histograms show bell-shaped curves with a lower level of negative skewness and the Q-Q plots show that most of the observations lie on the straight line. All these suggesting the acceptable normality of our data.

#### 4.4 Multicollinearity

Multicollinearity refers to a situation where the independent variables are correlated with each other leading to unreliable analysis outcomes. Table 4.3 shows Tolerance and Variance Inflation Factor (VIF) values. The Tolerance value should be less than 1.0 or according to Ringle et al. (2015), if the VIF value is less than 5, there is no problem of Multicollinearity.

Table 4.3: Collinearity Diagnostic Coefficients

Collinearity Statistics		
Model	Tolerance	VIF
URRM	0.579	1.727
RI	0.449	2.228
1 RAA	0.336	2.972
RMON	0.497	2.013
CRA	0.685	1.461

*Source: Authors Compilation*

Table 4.3 shows that all variables Tolerance values are less than 1.0 and VIF values are less than 5.0, confirming that there is no multicollinearity problem in our data set.

#### 4.5 Correlation Analysis

For analyzing and estimating the relationship between the variables, the study utilized Pearson's product-moment correlation coefficient ( $\Gamma$ ).

Table 4.4 shows the correlation coefficients suggesting significant correlations among the stated variables. These variables are significant at a 1% confidence level. Based on Cohens standards (1988, 1992), RMPs have a medium positive relation with URRM, RI, and CRA while RAA and RMON are strongly positively correlated with RMPs.

#### 4.6 Regression Analysis

The study developed the null hypothesis that Risk Management Practices (RMPs) are not determined by URRM, RI, RAA, RMON, and CRA. To test the hypothesis, the study used the following multiple regression model:

$$\text{RMPs} = \alpha + \beta_1 (\text{URRM}) + \beta_2 (\text{RI}) + \beta_3 (\text{RAA}) + \beta_4 (\text{RMON}) + \beta_5 (\text{CRA}) + \epsilon$$

Such multiple regression model is accepted and used in studies of [Al-Tamimi and Al-Mazrooei \(2007\)](#); [Bilal et al. \(2013\)](#); [Hassan \(2009\)](#); [Hussain and Al-Ajmi \(2012\)](#). Table 4.5 shows the output of the regression analysis. R-square value is reported at 76.1% showing that the five explanatory variables are responsible for the 76.1% variations in the dependent variable (RMPs). F-value is above 4 with a P-value of less than 0.05, showing the significance of the overall model. The

Table 4.4: Bi-Variate Correlation Coefficients

		URRM	RI	RAA	RMON	RMPs	CRA
URRM	Pearson Correlation	1					
RI	Pearson Correlation	.475**	1				
RAA	Pearson Correlation	.556**	.735**	1			
RMON	Pearson Correlation	.582**	.530**	.657**	1		
RMPs	Pearson Correlation	.511**	.651**	.761**	.784**	1	
CRA	Pearson Correlation	.460**	.441**	.513**	.435**	.580**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

Durbin Watson value is near to 2, which means that there is no problem of autocorrelation in variables employed in the model.

Table 5 reports that RAA, RMON, and CRA are the significant determinants of the RMPs at a 1% level. While RI is significant at a 10% significant level. The results are partially supporting the findings of Hussain and Al-Ajmi (2012) where they found all the five variables significantly affecting the RMPs in a positive direction. While in this study, URRM has a negative and insignificant relationship with RMPs. This may be because of the lack of awareness of the overall understanding of risk management in Afghanistans context. The relationship of these variables with the RMPs is positive while URRM has a negative relationship, in line with the findings of Shafique et al. (2013).

Table 4.5: Regression Coefficients

Model	Coefficients ( $\beta$ )	Std. Error	t	Significance (p)
Constant	0.387	0.318	1.217	0.226
URRM	-0.097	0.068	-1.419	0.159
RI	0.127	0.067	1.881	.063*
RAA	0.267	0.076	3.488	.001***
RMON	0.413	0.058	7.166	.000***
CRA	0.207	0.059	3.486	.001***
R-square = .761    F-value = 66.206 (p=0.000)    N = 110    Durbin Watson = 1.999				
Level of Acceptance: *Significant at $p \leq .001$ , **Significant at $p \leq .05$ , ***Significant at $p \leq .01$				

Source: Authors Compilation

## 4.7 Comparison of Risk Management Practices

Table 4.6: Risk Management Practices of Public and Private Banks

Variable	Mean			t-value	Sig.
	Public	Private	Combined		
Understanding Risk & Risk Management	5.1832	5.3484	5.2553	-0.924	0.36
Risk Identification	4.8967	4.8	4.8545	0.469	0.64
Risk Assessment and Analysis	4.9262	5.0208	4.9675	-0.451	0.65
Risk Monitoring	5.2064	5.2833	5.24	-0.336	0.74
Credit Risk Analysis	4.9355	5.3411	5.1125	-2.192	0.03
Risk Management Practices	4.9623	5.1486	5.0436	-0.963	0.34
Total Combined	5.0183	5.157	5.0789	-0.732	0.46

Source: Authors Compilation

Table 4.6 provides a comparative analysis of risk management practices of public and private banks in Afghanistan. As the histograms and Q-Q plots show that data is normal, the study uses paired comparison t-statistics for mean comparative analysis. The mean values for public and private banks range from 4.8967 to 5.2064 and 4.8000 to 5.3484 respectively. The highest mean value for public banks is recorded for risk monitoring while URRM has the highest mean value for private banks respectively. The total average of all the RMPs is higher for private banks but there are no overall significant differences in the risk management practices of public and private banks. Table 4.6 also shows that there is a significant difference in credit risk analysis practice between public and private banks.

## 4.8 Types of Risks

Depository Financial Institutions (DFIs) of any country face various types of risks. The importance of these risks for each bank depends upon the regulatory framework of the banking sector in that country, investment portfolios of the bank, etc. The following Table 4.7 prioritized the importance of risk faced by banks in Afghanistan. Looking at the mean values of the whole sample, credit risk has the highest mean value of 6.3455 followed by country risk with a mean value of 6.1091. The result of credit risk being the most prioritized risk by banks in Afghanistan confirms lending activities as the primary business of the banks. Credit risk has been a profound risk of DFIs because of its lead role in banking operations. Credit has also been identified as the top prioritized risk by [Hussain and Al-Ajmi \(2012\)](#). Country risk is the second most important risk signifies the fact that the banking sector considers law and order situation as a threat to development ([Khan et al., 2018](#)). The third prioritized risk based on relative importance is liquidity risk showing the banks concerns over liquidity issues. Liquidity risk is ranked second in the study of [Hussain and Al-Ajmi \(2012\)](#) and fourth by [Hassan \(2009\)](#) and [Al-Tamimi and Al-Mazrooei \(2007\)](#). Overall, there are no significant differences between public and private banks, the average t-value is 1.04, except for legal risk, operational risk, and country risk.

Table 4.7: Types of Risks

Type of Risk	Whole Sample		Public Banks		Private Banks		t
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Credit Risk	6.346	1.2521	6.242	1.4221	6.479	0.9891	-0.99
Liquidity Risk	6.082	1.3212	6.065	1.4127	6.104	1.2071	-0.16
Operational Risk	6.073	1.4444	5.855	1.6481	6.354	1.0816	-1.82
Legal Risk	5.882	1.4572	5.581	1.5842	6.271	1.1803	-2.52
Regulatory Risk	5.764	1.4896	5.597	1.3845	5.979	1.6044	-1.34
Reputational Risk	5.555	1.418	5.419	1.4206	5.729	1.4103	-1.14
Strategic Risk	5.382	1.7026	5.403	1.6641	5.354	1.7684	0.149
Solvency Risk	5.4	1.6153	5.452	1.3752	5.333	1.8944	0.379
Interest Rate Risk	5.518	1.3796	5.565	1.3504	5.458	1.4286	0.399
Settlement Risk	5.136	1.6506	5.258	1.4703	4.979	1.8622	0.878
Concentration Risk	5.091	1.6675	5.307	1.5847	4.813	1.7462	1.551
Price Risk	5.236	1.6696	5.242	1.7805	5.229	1.5332	0.04
FX Risk	5.9	1.306	6.032	1.28	5.729	1.3327	1.21
Country Risk	6.109	1.2875	6.323	1.1703	5.833	1.3889	2.004
Average	5.677	1.4758	5.667	1.4677	5.689	1.4591	1.04

Source: Authors Compilation

## 4.9 Risk Assessment Techniques

When it comes to risk techniques for the measurement and assessment of risk, the banking sector of Afghanistan relies more on traditional methods instead of using some contemporary and sophisticated techniques. The evidence is compiled in the following Table 4.8 which shows financial statement analysis as the most widely used technique for risk assessment with 87 respondents out of 110 confirming the usage of financial statement analysis. The least favored and used technique is stress testing with only 46.36% confirming the use of the technique. Stress testing is a comprehensive method of assessing the resilience of the banks stability in the times of worst cases. Stress testing is the least favored method also signifies the fact of the insufficient capable workforce for the banking sector.

## 5 Conclusions and Recommendations

With the increasing level of globalization, the financial markets are becoming more volatile amid the extensive flow of information exposing the financial institutions to the diverse nature of risks. The banking sector is also experiencing more financial integration with each passing day at the cost of exposure to complex risks. Such a situation leaves banks with no choice but

Table 4.8: Ranking of Risk Assessment Techniques

Ranking	Assessment Technique	Response	Public Bank	Private Bank	Whole Sample
1.	Financial Statement Analysis	Yes	48 (77.42%)	39 (81.25%)	87 (79.09%)
		No	14 (22.58%)	09 (18.75%)	23 (20.91%)
2.	Audit and Physical Staff	Yes	45 (72.58%)	39 (81.25%)	84 (76.36%)
		No	17 (27.42%)	09 (18.75%)	26 (23.64%)
3.	Value at Risk Analysis	Yes	44 (70.97%)	38 (79.17%)	82 (74.55%)
		No	18 (29.03%)	10 (20.83%)	28 (25.45%)
4.	Inspection by the Bank Staff	Yes	47 (75.81%)	34 (70.83%)	81 (73.64%)
		No	15 (24.19%)	14 (29.17%)	29 (26.36%)
5.	Process Analysis	Yes	43 (69.35%)	37 (77.08%)	80 (72.73%)
		No	18 (29.03%)	11 (22.92%)	29 (26.36%)
6.	SWOT Analysis	Yes	41 (66.13%)	35 (72.92%)	76 (69.09%)
		No	21 (33.87%)	13 (27.08%)	34 (30.91%)
7.	Risk Survey	Yes	41 (66.13%)	31 (64.58%)	72 (65.45%)
		No	21 (33.87%)	17 (35.42%)	38 (34.55%)
8.	Scenario Analysis	Yes	35 (56.45%)	32 (66.67%)	67 (60.91%)
		No	27 (43.55%)	16 (33.33%)	43 (39.09%)
9.	Bench Marking	Yes	30 (48.39%)	25 (52.08%)	55 (50.00%)
		No	32 (51.61%)	23 (47.92%)	55 (50.00%)
10.	Stress Testing	Yes	30 (48.39%)	21 (43.75%)	51 (46.36%)
		No	31 (50.00%)	27 (56.25%)	58 (52.73%)

Source: Authors Compilation

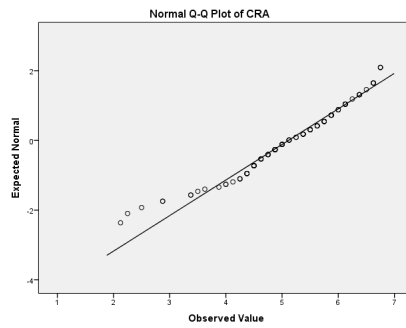
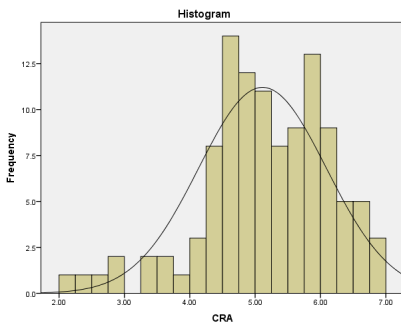
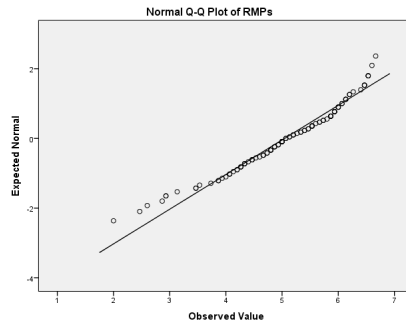
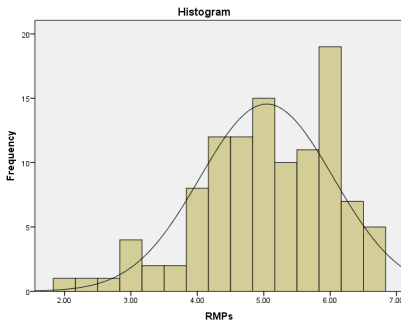
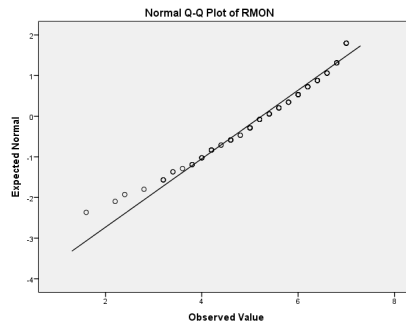
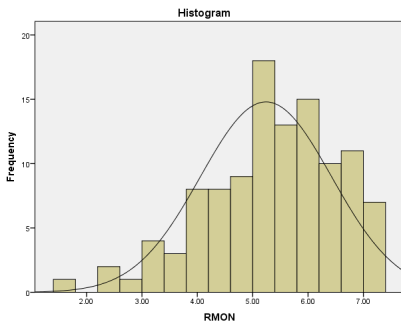
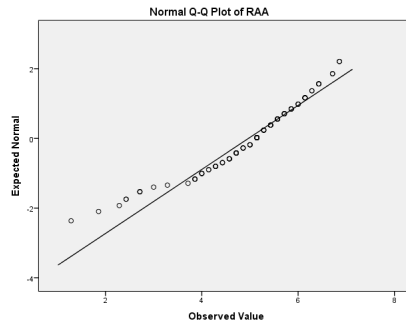
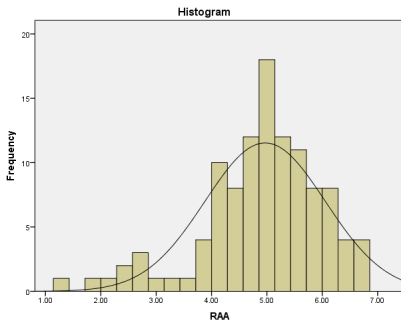
to manage their risks. This study analyzes the risk management practices of public and private banks in Afghanistan to see if there exists a significant difference among these practices. The results found that that RAA, RMON, and CRA are the significant determinants of the RMPs at a 1% level while RI is significant at a 10% significant level. Overall, there has been no significant difference in the risk management practices of public and private banks. The study found credit risk, country risk, and liquidity risks as the major risks for the banking sector in Afghanistan. Financial statement analysis, audit and physical staff, and value at risk analysis are the three top instruments respectively for the assessment of risk. The analysis also shows that private banks are more efficient in risk assessment and analysis, risk monitoring, and credit risk management than public banks.

The study has significance for the customers, management, regulators, and investors. The customers should be aware that private banks are more efficient than public banks in terms of risk assessment and analysis, risk monitoring, and credit risk management so the customers

may demand higher returns from public banks. The regulators and management of the bank should develop effective and sophisticated models for risk management to meet the tailored needs of each risk management. Such development will ensure sustainability and transparency in banking operations. Future research can be conducted to evaluate the risk management techniques of conventional and Islamic banks. Additionally, the role of Basel II in improving the effectiveness of risk management practices can be analyzed.

## References

- Al-Tamimi, H. A. H. (2002). Risk management practices: an empirical analysis of the uae commercial banks. *Finance India*, 16(3):1045.
- Al-Tamimi, H. A. H. and Al-Mazrooei, F. M. (2007). Banks' risk management: a comparison study of uae national and foreign banks. *The Journal of Risk Finance Incorporating Balance Sheet*, 8(4):394–409.
- Berg, T. (2010). The term structure of risk premia: new evidence from the financial crisis.
- Bilal, A. R., Talib, N. B. A., and Khan, M. N. A. A. (2013). Remodeling of risk management in banking: evidence from the sub-continent and gulf. *The Journal of Risk Finance*.
- Carey, M. and Hrycay, M. (2001). Parameterizing credit risk models with rating data. *Journal of banking & finance*, 25(1):197–270.
- Fadel, S. M. and Al-Ajmi, J. (na). Risk management of islamic banks: A search for empirical evidences. *CORPORATE OWNERSHIP & CONTROL*, page 8.
- Fatemi, A. and Fooladi, I. (2006). Credit risk management: a survey of practices. *Managerial Finance*.
- Hahm, J.-H. (2004). Interest rate and exchange rate exposures of banking institutions in pre-crisis korea. *Applied Economics*, 36(13):1409–1419.
- Hassan, A. (2009). Risk management practices of islamic banks of brunei darussalam. *The Journal of Risk Finance*.
- Hussain, H. A. and Al-Ajmi, J. (2012). Risk management practices of conventional and islamic banks in bahrain. *The Journal of Risk Finance*.
- Khalil, S., Ali, L., et al. (2015). Risk management practices in the conventional banks working in peshawar. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5(2):53–58.
- Khan, W., Khan, A., and Shinwari, A. K. (2018). Challenges, opportunities and role of financial institutions in development of financial system of afghanistan; a thematic analysis approach. *Kardan Journal of Economics and Management Sciences*, 1(1):33–44.
- Meulbroek, L. K. (2002). A senior manager's guide to integrated risk management. *Journal of Applied Corporate Finance*, 14(4):56–70.
- Ojasalo, J. (2009). A model of risk management in globalizing companies. *The Business Review*, 13(1):200–209.
- Sensarma, R. and Jayadev, M. (2009). Are bank stocks sensitive to risk management? *The Journal of Risk Finance*.
- Shafiq, A. and Nasr, M. (2010). Risk management practices followed by the commercial banks in pakistan. *International Review of Business Research Papers*, 6(2):308–325.
- Shafique, O., Hussain, N., and Hassan, M. T. (2013). Differences in the risk management practices of islamic versus conventional financial institutions in pakistan. *The Journal of Risk Finance*.
- Smithson, C. and Simkins, B. J. (2005). Does risk management add value? a survey of the evidence. *Journal of applied corporate finance*, 17(3):8–17.
- Tufano, P. (1998). Agency costs of corporate risk management. *Financial Management*, pages 67–77.





## CONTRIBUTOR'S GUIDELINES

---

### **Abstract.** .

The management of Jinnah Business Review (JBR) encourages researchers to prepare their articles in accordance with the following guidelines and submit their manuscripts online, preferably. Before submitting your articles online, you will have to transform your article in to our Journals template; and for this purpose, you can use a specimen provided for the article on our research center's website ([www.jbrc.pk](http://www.jbrc.pk)) as a base. .

---

## AIMS AND SCOPE

Jinnah Business Review (JBR) is the academic research journal of the Jinnah Business Research Center of Capital University of Science and Technology, Islamabad (Pakistan). The Journal publishes theoretical and empirical research papers in management, finance, human resource management, marketing and economics, and all other related disciplines of management and social sciences. Its primary focus is on empirical studies with an emphasis on the policy relevance of the findings.

JBRs goals are to inform the academic, business, and public policy communities of the results of relevant current research; to provide expert analysis of current events and reviews of literature in the field; and to add to the business literature material suitable for academics, executives, and professionals.

New innovative concepts, ideas and practices about businesses, industry, and management related disciplines are therefore welcomed. The submitted articles are undergone through a two-tiered review; the first evaluation is carried out by the JBR Editorial Advisory/Working Committee consisting of members from each relevant discipline, and the second review by peer referees and experts working in the related fields in Pakistan and abroad.

## INSTRUCTIONS FOR AUTHORS

The Editors welcome preliminary inquiries about manuscripts for possible publication. There is no standard fixed length for articles, but a 15 20 A4 pages, with 12-fonts and 1-line space article would suffice. Manuscripts should be prepared according to the following style rules (deviations from these rules can cause publication delays).

## ***Content, Length, and Formatting***

It is the author's responsibility to make the submitted paper readable, relevant, and interesting, before submission and consideration by referees. This require.

### ***Length***

All submitted papers must be formatted according to the instructions below, and must be no more than 15 20 US letter pages, as defined earlier. This page limit includes all parts of the paper: title, abstract, body, bibliography, appendices and tables.

### ***Abstract***

An abstract not exceeding 250 words comprising the following is required in the following format:

Authors name (s) and affiliation

- a) Email address
- b) Title and abstract content

The abstract content should clearly state:

- a) Research questions and/or objectives
- b) Methodology
- c) Scope of investigation/findings

### ***Full paper***

- a) A4 size paper
- b) Margins must be 1 inch on all sides
- c) Font size 12 Times New Roman (body text)
- d) Title, subtitles, abstract and references single spaced; body text 1  $\frac{1}{2}$  - line spaced
- e) Referencing, graphics & tables will be considered in the total page count.
- f) Do not include page numbers, header & footer.
- g) Maximum 15 20 pages
- h) Other formatting details see next section

## ***Tables and Figures***

- a) All unessential tables and figures should be eliminated.
- b) Tables must be submitted in Microsoft Word table format, and should be created using Times New Roman text, 10 point size. APA-style provided elsewhere must be preferred.
- c) Figures must be clearly produced in black and white. All text included in figures should be Times New Roman (10 point minimum).
- d) Each table and figure should fit on a single page. Tables and figures may be oriented horizontally (landscape) or vertically (portrait) within the allotted space.
- e) Each table and figure should be submitted on a separate sheet and identified with a table or figure number and a descriptive title.
- f) Legends and titles on tables and figures must be sufficiently descriptive such that they are understandable without reference to the text.
- g) For data not generated by the author(s), the source of the data should be given (in short form) below the table or figure and listed in full in the references.
- h) Every table and figure must be referred to in the text. Each table and figure will appear in the journal after its first mention in the text.

## ***File type***

All papers are to be submitted as a single MS WORD file, formatted for 8.5" x 11" paper. It is essential that submitted papers print without difficulty on a variety of printers.

## ***Anonymity Requirements for Double-Blind Reviewing***

All research papers submitted to JBR will undergo a "double-blind" reviewing process: the program committee members and referees who review the paper will not know the identity of the authors. To ensure anonymity of authorship, authors must prepare their manuscript as follows:

- a) Authors' names and affiliations must not appear on the title page or elsewhere in the paper.
- b) You must also use care in referring to related past work, particularly your own, in the paper. The following types of statements must be avoided:  
In our previous work [1,2], we presented two algorithms for ——— In this paper, we build on that work by ——— .

## ***Footnotes and References***

- a) Footnote material should be incorporated into the text whenever possible. If footnotes are necessary, the note number should be typed in the text and superscripted. The notes should be collected at the end of the text as endnotes.
- b) References should be (a) integrated into the text in short form and (b) collected together at the end of the article. APA format needs to be followed.

*i) In-text, citations should be placed in parentheses and noted as follows:*

For book or academic journal - (last name of author[s], date); such as: (Hill, 1988); (Beatty, 1989; Feltham, et al. 1991; Leland & Pyle, 1977).

If no author, cite journal, institution, or publisher. For works with three or more authors, list the first author followed by et al. as shown above. For multiple citations, alphabetize citations by first authors last name.

*ii) The full bibliographic information in the references should be composed as follows:*

For book - author[s]. year. book title. edition number [if applicable]. location: publisher. Such as: Yin, R.K. (2003). *Case Study Research:*

*Design and Methods.* 3rd Edition. Thousand Oaks, California: Sage Publications, Inc.

For edited volume editor[s] (ed[s]). year. book title. edition number [if applicable]. location: publisher.

Such as: Nelson, R.R.(ed.).(1993). *National Systems of Innovations: A Comparative Analysis.* Oxford: Oxford University Press.

For chapter in edited volume - author[s]. year. chapter title. in editor[s] (ed[s]). book title, pp. chapter page numbers. location: publisher.

Such as: Groenewegen, John and Jack Vromen (1997). *Theory of the firm revisited: New and neo-institutional perspectives.* In Lars Magnusson and Jan Ottosson (eds.) *Evolutionary Economics and Path Dependence*, pp. 33-56. Cheltenham, UK: Edward Elgar.

For article in academic journal - author. year. article title. journal title. volume number (issue number): page numbers.

Such as: Black, J. S., Gregersen, H. B. & Mendenhall, M.E. (1992). *Toward a Theoretical Framework of Repatriation Adjustment.* *Journal of International Business Studies* 23 (4): 737-760.

The author(s) should make sure that there is a strict one-to-one correspondence between the in-text citations (including citations in footnotes, tables, and figures) and the list of references in the References.

### ***Copy Preparation***

JBR accepts manuscripts via internet or post or e-mail. All hard-copy submissions must be accompanied by a disk or CD containing an electronic version of the manuscript. The manuscript should be prepared using a recent version of Microsoft Word and should utilize standard fonts and symbols. Ideally, such a manuscript should be formatted with regard to the following guidelines:

- a) Do not use tabs except in tables.
- b) Do not indent block quotations.

- c) Do not hyphenate or otherwise break words across lines.
- d) Use headings sparingly and logically. Do not use more than three levels of headings. Use consistent formatting for each heading level employed.

### ***Copyright Transfer***

- a) Submission of a paper will be held to imply that it contains original unpublished work and is not being submitted for publication elsewhere.
- b) Submission of a paper also implies that, upon acceptance of an article by the journal, the author(s) will transfer copyright of the article to the publisher. The transfer will ensure the widest possible dissemination of information.
- c) It is understood that submission of the paper for publication has been approved by all of the authors and by the institution where the work was carried out; it is further understood that any person cited as a source of personal communications has approved such citation.

### ***Miscellaneous***

- a) Papers must be in English. Use American spelling instead of British (e.g., labor, not labour). Use the American terms such as billion (one billion = 1,000,000,000; one trillion = 1,000,000,000,000), rather than lakhs and crores.
- b) Spell out all numbers from one to ninety-nine, unless:
  - i) *the number contains a decimal point, e.g., 6.2 and 0.12.*
  - ii) *the number precedes a percent sign or a unit of measure, e.g., 47% and 16m.*
- c) Italicize and define non-English words at their first occurrence; at subsequent occurrences, format the word in roman (no italicized) type.
- d) A short abstract of the paper should always be included with the submission.
- e) Please keep a copy of everything sent to JBR, both hard copy and electronic copy, and bear in mind that the electronic version received at JBR will be considered the master copy. The Editors do not accept responsibility for damage to or loss of submitted papers or electronic media.
- f) A short note listing each authors institutional affiliation, current address, telephone numbers, e-mail address, and other relevant biographical information, including publications and a photograph should be provided.
- g) Any manuscript that does not conform to the above instructions may be returned for the necessary revision before publication.
- h) Each author is entitled to one copy of the issue in which his or her article appears.

### **Note:**

Editor reserves the right to amend, abridge or otherwise alter the contents of the paper to make it suitable for publication. However every endeavor will be made not to affect the spirit or effectiveness of the paper.





**JINNAH**

BUSINESS RESEARCH CENTER

**Capital University of Science and Technology**

Islamabad Expressway, Kahuta Road, Zone-V,  
Islamabad, Pakistan

ISSN 2070-0296



9 772070 029007