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Sukkur IBA Journal of Management and Business is peer-refereed and multidisciplinary journal. The mission of **SIJMB** is to contribute and promote research in the field of business and management sciences. The journal encourages findings of innovative and solution oriented applied research.

Aims & Objectives

Sukkur IBA Journal of Management and Business aims to publish cutting edge research in the field of business, economics and management sciences. It accepts original research articles, case studies, reviews, and short comments on diverse issues, problems, unique concepts, hypotheses, and solution-oriented findings in interdisciplinary studies of economics and management sciences.

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- Entrepreneurship
- Finance
- General Management
- Globalization
- Economics
- Knowledge Management
- Leadership
- Marketing
- Operation Management
- Organization Behavior
- Organization Development
- Supply Chain Management
- Sustainability
- Human Resource Management
- Total Quality Management

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In continuation of endeavors to touch new hallmarks in the field of business education and research, **Sukkur IBA** publishes an international referred journal. **Sukkur IBA** believes research is an integrated part of modern learning and development. Consequently, **Sukkur IBA Journal of Management and Business – SIJMB** is the modest effort to contribute and promote the research environment within the institution and Pakistan as whole. **SIJMB** is peer reviewed and multidisciplinary research journal to publish findings and results of the latest and innovative research in the fields, but not limited to business, economics and management. Following the tradition of **Sukkur IBA**, **SIJMB** is also aimed to achieve international repute and high impact research publication in the near future.

Sukkur IBA is mission driven university and committed to serve towards the socioeconomic development of Pakistan through education and research.

Prof. Nisar Ahmed Siddiqui
Sitara-e-Imtiaz
Vice Chancellor, Sukkur IBA University

Editorial

Dear Readers,

Once again, it's a pleasure to bring you the latest issue of **Sukkur IBA Journal of Management and Business - SIJMB**. Following our editorial policy, this issue contains double blind peer-reviewed articles which address the key business, management and economic issues pertaining to both national and international levels. The continued efforts of our editorial team and reviewers have enabled **SIJMB** to present you the high-quality research work based on the innovation, originality and contemporary issues in the core areas but, not limited to business, management and economics. **SIJMB** follows continuous improvement policy, and I thank all the stakeholders who have been the part of it. Moreover, **SIJMB** has continued its open access policy in order to reach larger audience and wider dissemination of published work.

While not forgetting that the **SIJMB** has an institutional association with **Sukkur IBA University**. In fact, the initiation of **SIJMB** is an outcome of strong research orientation followed by the Sukkur IBA and I am grateful for continuous institutional support in this regard. In addition, the **SIJMB** provides valuable platform for national and international researchers and publishes their research findings and disseminates those to the largest audience. The journal does not charge any fees and provides complimentary copy (in hard form) to each author. In addition, the supplement copies of the journal are also distributed to HEI and R&D institutions of the country. The journal has been archived by world's renowned scientific repositories. Journal has received recognition from several research agencies, universities and renowned professors. With pleasure, it is also to share with you all that the **SIJMB** has recognized by the **Higher Education Commission (HEC)**. In coming years, the journal aims to improve its current state by attracting more national and international researchers in the field of business, management and economics.

On behalf of the **SIJMB**, I welcome submissions for the upcoming issues of the journal and looking forward to receiving your valuable feedback.

Dr. Khalid Ahmed
Editor-in-Chief
SIJMB

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Volume 6 | No. 1 | January – June 2019

Contents

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Impact of Credit Rating on Firm Performance mediating role of Trade Credit. Evidence from Pakistani Non-financial Firms.

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Abstract

This study investigates the impact of a credit rating on firm performance with the mediating role of trade credit of non-financial firms in Pakistan. Even with the tremendous changes in financial trend, trade credits still have huge usage. Firms are using trade credit as an informal source of financing in almost all regions of the world. World-renowned companies have access to financial lending, but they also prefer trade credit, it provides them an edge against collateral held at financial institutions. This study use panel data of non-financial firms. The data consists of nine years from 2008 to 2016 for 38 non-financial firms. By investigating the mediating role of trade credit results suggest that large firms have a better credit rating that helps them to get finance from formal financial institutes at easy terms and conditions. That why they are willing to provide trade credit to other firms that have limited access to formal finance, that lead to higher firm performance. It is observed that large firms (creditworthy firms) are more involved in trade credit than small firms.

Keywords: *Trade Credit, Credit Rating, Firm Performance.*

JEL-Classification: G320, R110

1. Introduction

Trade credit is the supplier and buyer relationship which has become an essential part of today's business. The trade credit agreement is a process in which both parties (supplier and buyer) participate to fulfill the agreement. Due to the fear/problem of liquidity or shortage of investment, when customers become risky and unable to get help, they move towards other means of finance such as trade credit to fulfill their mutual interest.

Medium and small-sized firms face many limitations in getting external finance (Berger and Udell 1995). According to Storey (1994), the financial mix of UK firms indicated that trade credit is a source of finance for any firm but most preferable to medium and small-sized firms. These days, many companies are using trade credit to

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fulfill the various business objectives, firms commonly decide to make the efficient use of capital. Marotta (1997) stated that the importance of trade credit varies from country to country. As stated by Murfin and Njoroge (2012), the world's largest mart, Wal-Mart is the largest user of trade credit. Wal-Mart prefers trade credit instead of borrowing from banks.

The credit rating of the firm shows the opinion of rating agency about the entity overall creditworthiness and its capacity to fulfill the financial obligations (Standard and Poor's (2002). The term creditworthiness indicates the likelihood of an issuer to make timely payments of financial obligations according to the term and conditions of contact, while it is not an absolute measure of default probability [Standard and Poor Global Credit portal (2009)]. PACRA and JCR-VISE are working as credit rating agencies working in Pakistan.

For financial motive, firms with higher performance (profitability) are generating more funds and consequently they transfer liquidity to their customer by selling goods on credit. (Grave, 2011). From an academic viewpoint, firms that have the capacity to generate funds (cash flow) would make extra sales by extending trade credit. So, firms with better performance (profitability) that generate cash funds extend more trade credit (Grave, 2011).

The effect of a credit rating on firm performance with the mediating role of trade credit has never been deeply studied in the case of Pakistan. Therefore this study contributes to the literature by examining the effect of a credit rating on firm performance with the mediating role of trade credit.

Non-financial companies in Pakistan overcome the problem of default they maintain relationships with the financial sector. According to Smith (1987), banks have reduced credit limits for companies in Germany. However, bank loans availability is considered a major issue for non-financial companies in Pakistan. There is a risk that the buyer company may not be able to obtain funds due to lack of funds. As risk increases, buyers need to find other convenient and less time-consuming external source of finance for business. Trade credit is the best way for companies where supplier already involved in business provides more help and support to businesses which are facing financial distress. Thus, the problem statement is "the use of trade credit has increased because of the high credit rating of nonfinancial firms". This study raises the question that what is the impact of a credit rating on trade credit supply and demand? Does its impact differ for small and large firms? So the main objective of this study is to find the relationship between credit rating and trade credit supply and demand and to find the relationship between credit rating and trade credit of large and small firms. Also, to find out the impact of a credit rating on firm performance by using trade credit.

For buyers and suppliers, trade credit is a good source of short-term financing. Trade credit used as a source of financing to effectively use resources and increase business sales. The supplier can easily assess the creditworthiness of the buyer through the credit rating developed by an independent third party. Trade credit agreements

provide the best means to manage the way a business operates without disturbing other loan related issues. On the other hand, buyers have the advantage that they do not have to face the problem of lending and can do credit transactions directly with the supplier.

2. Literature Review

According to Ferris (1981) in trade credit theory, trade credit is a mean that used to reduce the attached cost to the transaction. Stated by Peterson and Rajan (1997) in early 1990 suggested that trade credit is an important segment of the balance sheet of all American firms, 18 percent of total assets were recorded as account receivable. They find that large firms borrow and lend more trade credit. Larger firms prefer to borrow more although their cash flow is higher and fewer opportunities for growth. It indicates that they are more creditworthy. When financial institutions deny granting the credit then firms move to see other options and trade credit extensively used by firms (Petersen & Rajan, 1997).

In Pakistan trade credit also an external source of finance most time for non-financial firms. According to Beck & Maksimovic (2008), instability in the financial market, the supplier and buyer make trade credit contract to fulfill their financial and business needs.

To resolve the problem of liquidity, small firms are more interested to issue the trade credit. Large companies show less interest in credit transactions, they do not need to give the guarantee of their products (Long et al; 1993). According to Beck, Kunt & Maksimovic (2008) as per the survey 48 countries of the world have 19.7 percent of investments has been financed by trade credit as an external source. Developed countries like the UK and France more than 30 percent of finance is trade credit as an external source. Explained by Elliehausen & Wolken (1993) that in US 60 percent of small firms use trade credit as a major financial source.

According to Berger, Udell (1995) and Cunat (2007) firms at the beginning and younger firms mostly rely on trade credit as an external source of finance. Suppliers offered them more helping hands and provide working capital financing to them. According to Cook (1999) and Garcia (2010), these offers enables the buyers to start a new era of trade and to form a new history of payments for their near future. According to Petersen and Rajan (1997), large companies are giving more trade credit because these companies hold large amounts of accounts receivables. Large companies have more opportunities for properly managing the mechanism so that analysts can make more reliable transactions and records. These aspects lead to the company's huge financing.

A company's credit rating reflects the view of rating agency about the entity's overall credibility and ability to meet its financial obligations (S & P 2002). According to Shaheen and Yasmin Javid (2014), credit rating agencies (CRAs) play a significant role in assessing the firm's risk of default. Credit rating agencies evaluate companies

based on publicly available information. Credit ratings convey the view of credit rating agencies on the issuer's ability to pay its financial obligations. A good corporate credit rating is seen as a symbol of good quality, financial strength, and sound reputation.

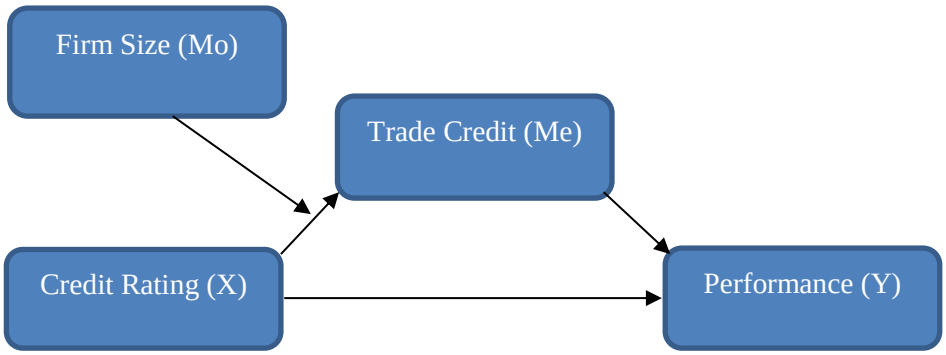
According to the study by De and Kale (1993) founded that financially strong firms have higher profitability and good credit ratings, which signals good firm quality. In the same context, it's suggested that credit ratings are signal to firm quality, and if markets identify them as adding value, then credit rating changes can signal changes creditworthiness of firm (Kisgen, 2006). This statement is also supported by Pottier and Sommer (1999) and Adams et al. (2003) that higher firm performance is an indication of the better financial strength of the firm. So, these statements indicate a positive association between firm performance (growth) and credit rating as, ratings monitor the agents of firms (Sylla, 2001).

A study conducted by (Abuhommous, 2017) suggests that a firm's profitability is positively affected by the investment in accounts receivable. Theoretically shown by Kim and Atkins (1978), Copeland and Khoury (1980), and Martinez-Sola et al (2014) that performance of firms is affected by the investment in trade credit granted to customers. When firms provide trade credit, it increases their sales and profitability. According to the study of Meltzer (1960), firms with good financial position prefer to increase their market share by offering trade credit to customers, particularly to those customers that have a low credit rating. Meltzer (1960) shows that firms with a good financial position prefer to increase their market share by offering trade credit to customers, especially for customers with a low credit rating.

2.1 Hypothesis

H_1: Credit rating impact on firm performance in Pakistan.
H_2: Credit rating impact on trade credit in Pakistan.
H_3: Trade credit impact on firm performance in Pakistan.
H_4: Trade credit mediate the relationship between credit rating and firm performance.

2.2 Theoretical Model



3. Methodology

The population for this study consists of non-financial firms from Pakistan, listed at PSX. So, our database contains the financial results of 38 non-financial firms, listed at PSX and data for the credit rating of non-financial firms taken by the PACRA. The sample selected on the base of availability of data according to PACRA Credit Rating for non-financial firms. Both cross-sectional and time series data is included in this research and data collected for nine years from the year 2008 to 2016. For analysis purpose[2] , here weight assigned to rating. AAA=1, AA+=0.95, and so on it ends at D=0.5.

General model:

$$y_{it} = \alpha_i + \beta_1 X_{1it} + \beta_2 X_{2it} + \cdots + \beta_k X_{kit} + \varepsilon_{it} \quad (0)$$

An econometric model for firm performance and credit rating.

$$Prof_{it} = \beta_0 + \beta_1 lsize_{it} + \beta_2 CR_{it} + \beta_3 (Lsize * CR)_{it} + \beta_4 AT_{it} + \beta_5 INV_{it} + \beta_6 lnC_{it} + \beta_7 Ret_{it} + \varepsilon_{it} \quad (1)$$

An econometric model for trade credit and credit rating.

$$TC_{it} = \beta_0 + \beta_1 Lsize_{it} + \beta_2 CR_{it} + \beta_3 (CR * Lsize)_{it} + \beta_4 INV_{it} + \beta_5 AT_{it} + \beta_6 RET_{it} + \beta_7 \ln C_{it} + \varepsilon_{it} \quad (2)$$

An econometric model for firm performance and trade credit.

$$Prof_{it} = \beta_0 + \beta_1 TC_{it} + \beta_2 AT_{it} + \beta_3 INV_{it} + \beta_4 lnC_{it} + \beta_5 RET_{it} + \varepsilon_{it} \quad (3)$$

An econometric model for the impact of a credit rating on firm performance with the mediation of trade credit;

$$Prof_{it} = \beta_0 + \beta_1 TC_{it} + \beta_2 CR_{it} + \beta_3 lsize_{it} + + \beta_4 (Lsize * CR)_{it} + \beta_5 AT_{it} + \beta_6 INV_{it} + \beta_7 lnC_{it} + \beta_8 Ret_{it} + \varepsilon_{it} \quad (4)$$

Where;

Prof= Profitability (net income to total assets) is the measure of firm performance
TC=Trade credit
β_0= Constant value
Lsize=large Size firms (dummy 1 for large firms and 0 for otherwise)
CR=Credit rating of the firm

[2] For research purpose this credit rating process already used by (Shaheen and Yasmin Javid, 2014) and MS thesis document of (Zeshan M,) from CUST, Islamabad.

CR*Lsize= It is an interaction term for credit rating and large size firm
AT=Asset turnover
INV= Inventory to total assets
lnC=Log of Cash and cash equivalent
RET=Retained Earning to total assets
$\mathcal{E}$ = Error Term

4. Results and Discussions

4.1 Descriptive Statistics

Table 1 shows the results of descriptive, the mean value of ACR is 0.181 and its standard deviation is 0.2969 for the period of 2008 to 2016. The maximum and minimum are 2.8112 and 0.0012. The mean of AP is 0.208 with the maximum and minimum of 5.2715 and 0.0083. Its standard deviation is 0.4584. The mean value of CR is 0.799 and its standard deviation is 0.1318 for the period of 2008 to 2016. It's maximum and minimum are 1 and 0.05. The results show that maximum credit rating is AAA and minimum credit rating is D. Profitability of non-financial firms average value is 0.128 but the standard deviation is 0.087.

Table I: Descriptive Statistics

Variables	**Mean**	**Maxi**	**Mini**	**Std. D**
TO	0.181	2.8112	0.0012	0.2969
ACP	0.208	5.2715	0.0083	0.4584
CR	0.799	1	0.05	0.1318
AT	1.334	15.289	0.0454	1.475
CGS	9.813	17.461	2.7821	2.1071
INV	0.153	2.3603	0.0007	0.1932
RET	0.303	5.7811	0.0003	0.4098
lnC	5.76	13.463	0.1337	2.4354
PROF	0.128	0.491	0.001	0.087

4.2 Correlation

Table 2 shows the degree of association between dependent and independent variables. Pearson correlation test adopted to explain the direction of the relationship. Credit rating and trade credit show a positive association with firm profitability.

Table II: Correlation Analysis

IV's	TC	CR	PROF	AT	C	INV	RET	CGS
TC	1							
CR	0.11	1						
PROF	0.23	0.09	1					
AT	0.08	0.12	0.18	1				
lnC	0.38	0.19	0.12	0.50	1			
INV	-0.14	-0.06	0.36	0.69	0.14	1		
RET	-0.08	0.09	0.08	0.57	0.04	0.66	1	
CGS	-0.13	0.29	0.22	0.21	0.09	0.07	0.01	1

TC: Trade Credit, CR=Credit Rating, PRFO=Profitability, AT=Asset Turnover, lnC=logarithm of cash & Cash equivalent, INV=Inventory to Total assets, RET= Retain Earning to Total Assets, CGS=Cost of Goods Sold.

4.3 Results

Firm performance and credit rating large firms(Equation 1)

Independent Variable		Coefficient	P value
C		-0.281783	0.0005
LSIZE		0.334351	0.0001***
CR		0.515104	0.0000***
LSIZE*CRL		-0.449303	0.0000***
AT		0.009486	0.0857*
INV		0.280251	0.0000***
lnC		-0.262248	0.0000***
RET		-0.095272	0.0000***
R^2	0.306181	F-statistic	16.1389
Adj R^2	0.287210	Prob (F)	0.0000

***, ** and * indicates significates at 1%, 5% and 10% level respectively, CR=Credit Rating, Lsize=Large size firms, AT=Asset Turnover, lnC=logarithm of cash & Cash equivalent, INV=Inventory to Total assets, RET= Retain Earning to Total Assets.

In the given table, the main variable is credit rating (credit rating of large-sized firms), indicates significant (0.000) and positive coefficient (0.515104) with firm performance. Our results are aligned with the study of De and Kale (1993), which suggest that financial strong firms (large firms) have good credit rating and higher

profitability. Inventory, asset turnover also shows a significant and positive relationship with firm performance. R2 indicates that these independent variables explain 30% to firm performance.

Trade credit and credit rating Large firms(Equation 2)

Independent Variable		Coefficient	P Value
C		-0.398071	0.1804
LSIZE		0.556289	0.0790*
CR		0.773639	0.0403**
LSIZE*CRL		-0.776499	0.0519*
AT		0.007626	0.7041
INV		-0.3305	0.0207*
lnC		1.119975	0.0000***
RET		-0.00651	0.9133
R2	0.208305	F-statistic	9.39691
Adj R2	0.186138	Prob(F)	0.0000

***, ** and * indicates significates at 1%, 5% and 10% level respectively, CR=Credit Rating, Lsize=large size firms, AT=Asset Turnover, lnC=logarithm of cash & Cash equivalent, INV=Inventory to Total assets, RET= Retain Earning to Total Assets.

Credit rating has significant and positive with trade credit (P<0.0403, Coefficient is 0.773639) It means when the credit rating of firms increase it leads to extend the trade credit by large firms. The result of the interaction term of credit rating with large size of the firm (LSIZE* CR) shows that its p-value is (0.0519) significant with a negative coefficient (-0.776499). It means higher credit rating leads to more trade credit by large forms. This result is aligned with the Petersen and Rajan (1997) which indicate that creditworthiness firms are more willing to provide trade credit. R2 value has is 0.208. It specifies that a 28 % variation in trade credit is explained by the independent variables.

Firms Performance to Trade Credit (Equation 3)

Independent Variable		Coefficient	P Value
C		0.117747	0.0000
TC		0.039529	0.0299**
AT		0.009156	0.1157
INV		0.222136	0.0000***
lnC		-0.173363	0.0067***
RET		-0.069951	0.0000***
R2	0.237475	F-statistic	15.6962
Adj R2	0.222346	Prob (F)	0.0000

***, ** and * indicates significates at 1%, 5%, and 10% level respectively, TC=Trade Credit, AT=Asset turnover, lnC=logarithm of cash & Cash equivalent, INV=Inventory to Total assets, RET= Retain Earning to Total Assets.

In the above table, results show that trade credit is significant (P<0.0299) and positively (Coefficient is 0.0395) effect on firm performance. This study also supported by the studies of Kim and Atkins(1978), Copeland and Khoury (1980) and Martinez-Sola et al (2014) that suggests that firm performance is affected by the investment in trade credit granted to customers. Trade credit shows a significant and positive relationship with firm performance. It indicates that firm performance increases when firms provide trade credit to other firms. Variation in firm performance 23 % explained by trade credit and other variables.

The mediating role of trade credit between credit rating of large firms and firm performance (Equation 4)

Independent Variable	Coefficient	P Value
C	-0.313534	0.0001
CR	0.569184	0.0000***
TC	0.05496	0.0016***
LSIZE	0.375693	0.0000***
CRL*LSIZE	-0.504262	0.0000***
AT	0.010039	0.0674*
INV	0.264488	0.0000***
lnC	-0.204264	0.0008***
RET	-0.096723	0.0000***
R2 0.335564	F-statistic	15.7192
Adj R 2 0.314216	Prob(F)	0.0000

***, ** and * indicates significates at 1%, 5% and 10% level respectively, TC=Trade Credit, TC= Trade credit, Lsize=Large size firms, AT=Asset turnover, lnC=logarithm of cash & Cash equivalent, INV=Inventory to Total assets, RET= Retain Earning to Total Assets.

Above table indicates trade credit as a mediator has a significant and positive effect on firm performance and credit rating and the large firm also shows a significant and positive effect on firm performance. The results of this study are aligned with the study of (Abuhommous, 2017) which suggest that the profitability of the firm is positively affected by the trade credit and credit rating.

5. Conclusion

This research strives to capture the impact of a credit rating on firm performance with the mediating role of trade credit. Therefore, the study examined the impact of credit ratings on trade credit usage with the mediating role of firm performance to shows the picture of trade credit. Trade credit contracts give the best way of business operation. On the other hand, the buyer has the advantage of not facing any discomfort as the

supplier is already involved in the same business and can make direct use of the supplier's credit facilities. Commercial loan and loan collateral become troublesome for the buyer. Risk buyers have a better chance of using discounted loans from the same supplier already involved in the supply of goods. This study suggests that large firms have better credit rating and they are willing to join the informal way of financing to capture the market share that leads towards the firm's profitability.

Trade credit plays an important role in firms as a source of finance. Those firms that are financially constrained, they can get funds at better term and condition of trade credit from supplier especially from a large firm, because large firms have good credit rating and they face less financial constraints to obtain funds from the capital market, to keep up their business operation. Those firms that have higher credit rating they can get supplies on credit from their supplier on easy terms and condition. Creditworthy firms pay their financial obligations on time. Creditworthy firms financially less constrained as a result they can get finance from the formal financial channel. They are able to offer trade credit supply to their customers. Small firms give less trade credit to their customers as compared to large firms. Small firms have financial limitations. Therefore they offer less involved in trade credit channel, but they try to imitate the large firm's procedure for trade credit.

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Determinants of Brand Loyalty in the Cola Industry of Pakistan: A Case Study of Pepsi Cola

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Abstract

The study has been comprehensively designed to understand the influence of customer satisfaction on brand loyalty. Whereas, customer satisfaction with the influence of brand personality as both the rivalry brand has significantly different positioning and personality. However, the study has purposefully incorporate brand attachment, brand trust and brand commitment as determinants of brand personality. Total 282 responses were collected using convenience sampling technique from the consumer market of Karachi, Pakistan. Primary data have been gathered with the help of quantitative five-point Likert scale questionnaire adapted from various past literature. The study has used Covariance-Based (CB) SEM model is used as data analysis method using SPSS-AMOS Version 22. The results showed that brand attachment, brand trust, and brand commitment have positive and statistically high impact on brand personality. Moreover, brand personality affects customer satisfaction positively and significantly. Also, customer satisfaction also showed statistically significant and positive influence on brand loyalty. Therefore, it has been evidently proven that brand attachment, brand trust and brand commitment were constructive determinants of brand personality, whereas, brand personality inclines customer satisfaction that eventually be translated into greater brand loyalty. It further revealed that among brand attachment, brand trust and brand commitment, brand personality was most influenced by brand trust, followed by brand commitment and least influenced by brand attachment. Hence, the companies can profoundly transform their marketing and brand management strategies accordingly for better outcomes. The study also provides some managerial and future research recommendations on the basis of results and findings.

Keywords: *Brand Personality, Brand Loyalty, Brand Commitment, Brand Attachment, Brand Trust, Customer Satisfaction.*

JEL-Classification*:* M370, M310, M300

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1. Introduction

Brand personality helps to identify the perception of the customers and intangible value that a customer has in the mind that is why brand personality is being one of the main topic of research for the researches. According to Aaker and Jennifer (1997) brand personality has the characteristic of human personality by understanding of these characteristic, it may fulfil the needs of customer. Basically it helps to understand how make customer satisfy and it is one of the fundamental of the marketing concept is to satisfying the desires of consumers Spreng et al. (1996) which helps to build brand loyalty of the product but there is the outcome of brand personality that is trust, commitment and attachment with the brand. Brand trust Chaudhuri et al. (2001) is actually the belief that a user of the brand has intangible value and faith for the brand that how user of the brand links to the brand. Brand attachment Thomson et al. (2005) is the of emotional connection that a consumer possesses for the brand which is exist in between human and the brands it is the brand attachment of the human with the brand. Brand commitment, Traylor et al. (1981) is happen when an individual buyer, starts buying repeatedly rather than buying to another brand that's how the buyer become committed to the brand. Brand loyalty and its connections for the long-term relationships for the buyers and sellers, actually it builds the understanding for both. Jacoby et al. (1978) explained that brand loyalty is based on the belief, attitude, and intention that a consumers possess for any particular brand. It is very important to observe that brand personality, is really helpful for customer satisfaction and once customer satisfaction is developed then it makes customer loyal to the brand.

The research is offering a model which contains direct and indirect impact of brand's perceived personality with its three major related consequences on customer satisfaction and brand loyalty. Keeping the significance of brand personality in mind, this study approach is behavioral, attitudinal, and mixed because merely the behavioral methodology does not help in recognizing true brand loyalty of the brand and customer should also have developed positive attitudes towards brand, Jacoby et al. (1973). Concerned with Pakistan's market, this study will reveal that how much importance should give to the brand personality in which this research has consider one of the most selling brands of the Pakistan who has 65% market share of the total beverage industry in Pakistan that is Pepsi, Baloch (2013). Although in the early 90's the market share of Pepsi is 80% but with the passage of time, the beverage industry brings a lot of competition in the Pakistani market cause of competition is now 65% of Pepsi, 30% of coco-cola and 5% market share has covered by the other brand which is also a big market share in the Pakistan beverage industry. This research will develop a sense that a brand personality may have impact on customer satisfaction and a satisfy customer may become loyal to the brand. Once it is building the relationship then it will also helpful for the managers that how much importance should be given to the brand personality.

Previously studies have seen that there are many studies have been conducted for the impact of brand personality such as Louis et al. (2010) on the three-dimensional relation

of brand i.e. trust, commitment and attachment. It shows that there is link find out between brand personality and its effect of trust, attachment and commitment. Furthermore, Lee et al. (2009) have proposed that customer's emotional value which is intangible plays a very important role in customer satisfaction. The results show that there is an impact of brand personality and the customer satisfaction on brand loyalty both impact is insignificant. In addition, Malik et al. (2013) critically evaluated the influential framework of brand personality proposed by Aaker (1997). In his study, it was suggested that to formulate new models regarding brand personality in relation to cross-cultural aspects because the model proposed by Aaker (1997) is good enough but it's getting weaker for multi cultures. Furthermore, a study conducted by Borzooeiet al. (2013) in this study it is investigated that is there any influence of brand personality on buying intention of the customer and the impact of the trust of the brand as well. The results portray the influence of the brand personality on buying purchase intention as well brand trust and it also suggest that brand personality has significant benefits for the managers to be considered as important variable. Brand personality helps in different variation to satisfy customers. A satisfied customer become brand loyal as it is shown in the study Lee et al. (2009). Furthermore, a work by Yang et al. (2004) argued that customer satisfaction has insignificant impact on brand loyalty because when customer become loyal to the brand is always depends on the degree of customer satisfaction, it's not true in all cases that satisfaction of every customer always leads to customer loyalty towards particular brand. It helps to see whether the customer satisfaction has impact on brand loyalty or not.

However, the brand war between colas were extensive and two beverages' international rivals striving hard to win consumers' trust and loyalty in the larger perspective. The two beverage rivals are Coca Cola and PepsiCo and both of them were considered as in severe brand war for decades. In this context, the case study for specific PepsiCo beverage brand have significant importance to ensure insightful findings and constructive conclusive remarks. Although, past studies have invested considerable time and efforts to gauge brand loyalty using awareness, commitment, attachment etc. But, little researches have been considerably conducted with respective to specific brand. Further, the ultimate brand rivalry has undoubtedly reinforced consumers to brand switch and companies are also taking such consumer behavior seriously. Hence, the significance of the current study in line with the Coca Brand War in Pakistan.

With such important purpose, the study has been comprehensively designed to understand that how customer satisfaction has the influence on brand loyalty. Whereas, customer satisfaction with the influence of brand personality as both the rivalry brand has significantly different positioning and personality. However, the study has purposefully incorporate brand attachment, brand trust and brand commitment as determinants of brand personality. Additionally, such extensive and comprehensive model has not yet gain enough attention from the researchers and practitioners especially in context of individual company i.e. PepsiCo in Pakistan. Hence, the model has its importance to practitioners and literature as well.

In Pakistan, limited work has done in determining the factors that influence brand loyalty in such a manner where the factor is brand personality with commitment, attachment, trust, customer satisfaction and brand loyalty. Best of author's knowledge, there is no such study has been conducted in Pakistan to determine the factors affecting the above mentioned variables. To handle this research gap, this research is an endeavor to provide a new insight on the brand personality (with brand attachment, brand trust, brand commitment) which is affecting on customer satisfaction and brand loyalty. The need of the current study is due to provide a competitive advantage to beverage industry for only those users who are the consumer of Pepsi. Hence, the main objective of this research is to analyze the relationship between brand personality, customer satisfaction and brand loyalty in regards to Pepsi Cola.

Certainly, this study has few limitations such as the study have faced time limited and geographical issues because the study cannot expend more than Karachi city because due to limitation of time, money issue and geographical issue. Because the date cannot be collected in this research more than Karachi city because it required time and money. The study has considered one brand (PepsiCo) of the particular industry which is itself a huge industry that is beverage but due to limitation, this study can only target those consumers who are the consumer of our Pepsi.

2. Theoretical Background

The theoretical background of the study is mainly based on one of the legitimate and popular theoretical foundations proposed by Keller (1993) known as Customer-Based Brand Equity (CBBE) model. The proposed theory has potential to gauge and arrange specific to brand management concepts that eventually formulate different customer-based concepts to brand management including brand commitment, brand trust, brand attachment, brand personality, customer satisfaction and brand loyalty especially.

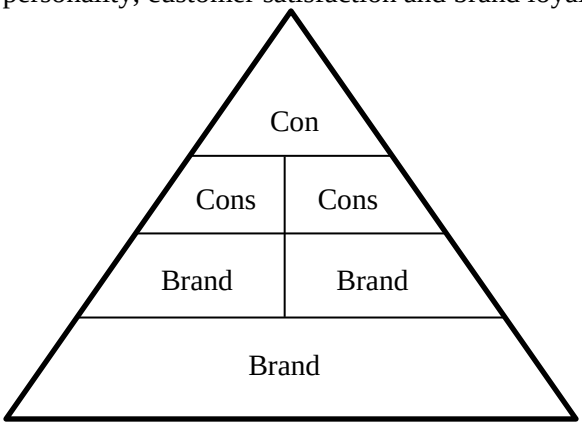

Figure 1: Customer-Based Brand Equity (CBBE) Framework Model

2.1. Customer-Based Brand Equity (CBBE) Model

Keller's (1993) famous theoretical model regarding brand equity called Customer Based Brand Equity (CBBE) proclaimed four stages of brand management in relation to customers. The following figure has been adopted from the base literature published by Keller in the year 1993.

Figure 1 shows that Keller (1993) has designed four levels for strong brand management strategies that companies customer usually asks to the brand. At the bottom of the pyramid, the stage was named as Brand Salience where the customer firstly interacts with the brand and tries to figure out brand actual presence and its attributes. Moving towards top of the pyramid, the second stage was divided into two sections brand performance and brand imagery. In this phase, the customers are striving to understand the benefits and associative outcomes that eventually be gained from the brand. Third stage also divided into two sections brand judgment and consumer feelings where the customer profoundly understands the brand and looks for attributes and dimensions to be attached with the brand. Lastly, customer brand resonance stage ultimately transforms the relationship amid customer and the brand. At the top of the pyramid, the customer now making relationship and association with the brand (Keller, 1993; Lassar, Mittal, & Sharma, 1995).

Under such extensive discussion on the theoretical foundations of Customer-Based Brand Equity (CBBE) model, the study has established strengthening grounds for hypotheses development. Foremost importantly, the CBBE model postulated that initially, customer was unknown to the brand and wants to understand dimensions and personality of the brand, Chaudhuri and Holbrook (2001); Lau and Lee (1999); Louis and Lombart (2010); Sahin, Zehir, and Kitapçı (2011). On this purpose, the customer was looking for certain attributes that can develop trust on the brand. Hence, the study has hypothesized that brand trust has significant influence on brand personality.

H1: Brand Trust has positive impact on Brand Personality.

Afterwards, the customer was also interested in knowing brand in the larger perspective in terms of its benefits and level of commitment. For the personality to be trustworthy and sincere, the sense of commitment should also be present prominently, Fullerton (2005); Louis and Lombart (2010); Wang (2002); Ramirez and Merunka (2019). Hence, hypothesized that brand commitment also has significant association with brand personality.

H2: Brand Commitment has positive impact on Brand Personality.

Furthermore, in regards to brand personality and knowing brand to the larger aspects, the customers are willing to understand such attributes and dimensions of the brand that can help them to engage into certain level of attachment with the brand, Belaid and Temessek Behi (2011); Louis and Lombart (2010); Hwang et al., (2019). On the basis of CBBE model, the study hypothesized significant association between brand attachment and brand personality.

H3: Brand Attachment has positive impact on Brand Personality.

Additionally, strong brand personality leads to customers' higher satisfaction level. As proposed in the CBBE model, customers judge and evaluate the brand with regards to their associative measures and meanings. Such relationship ultimately provides satisfaction to the customer based on the developed and encouraged personality of the brand, Keller (1993); Lassar et al. (1995); Magin, Algesheimer, Huber, and Herrmann (2003). Therefore, the study further hypothesized that brand personality significantly influence customer satisfaction.

H4: Brand Personality has positive impact on Customer Satisfaction.

Lastly, strong brand commitment, trustworthiness and attachment with the brand, brand has somewhat developed its particular and prominent personality to customers that eventually leads to the ultimate relationship building activities. At the very top block of the pyramid, the customer finally starts looking for such attributes and benefits that can be achieved by the brand and finds this position as relationship building with the brand. Hence, the improvement of the brand association encourages that leads to finally, brand loyalty, Chaudhuri and Holbrook (2001); Fullerton (2005); Lau and Lee (1999); Magin et al. (2003); Sahin et al. (2011). Therefore, the study hypothesized significant association between customer satisfaction and brand loyalty.

H5: Customer Satisfaction has positive impact on Brand Loyalty.

Therefore, on the theoretical and empirical foundations, the study has developed following conceptual framework.

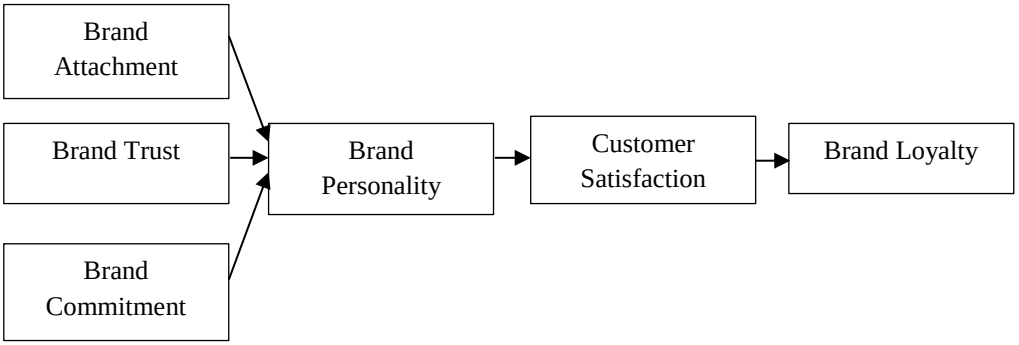

Figure 2: Conceptual Framework

2.2. Empirical Reviews

Chinomonaet al. (2013) the purpose of this study is to analyze the impact of the customer brand experience which has impact on brand attachment, brand satisfaction and the brand trust in the context of Africa. Whereas the data of 151 people has collected, in order to test the data this research has use Structural Equation Modeling (SEM) technique. On the basis of SEM technique Smart PLS software has been used to analyze the data. The findings of the study indicate that the customer satisfaction regarding brand is positively influence by the favorable brand experience. Furthermore, brand attachment and brand trust are also significantly influenced by the brand

experience. This study has contributed a lot of valuable literature into the field of brand management. This knowledge of the literature would be of great help to the brand manager who may many have benefits of it.

Lin et al. (2010) the major purpose of the research is to examine the capacity to impact of relationship marketing and corporate image on trust, which is impacting on customer purchase intention, and the average effects of word-of-mouth between the capacities of trust on customer purchase intention. In the study the primary research data have collected through the sampling. Regression analysis has used to test the hypotheses. By the help of primary data questionnaires have collected from 400 consumers who were interviewed and out of that 387 questionnaires were collected from them. In this research the results have seen that the brand personality hav a very outstanding positive impact on affective loyalty, openness personality and agreeableness trait have an appreciable positive influence on action loyalty.

Ercişet al. (2012) whereas the survey has conducted from undergraduate and graduate students of Atatürk University, the purpose of the study is to measure value, equity and quality had no effect on brand satisfaction, but it has an effect on trust. In this research the data has tested by Correlation and MRA which were attempted to test the research model. In order to determine the relationship of trust and satisfaction, correlation analysis was conducted. It has determined in the research study that brand satisfaction is affecting only on affective commitment, and trust which has an impact on both affective commitment and continuance commitment.

Borzooeiet al. (2013) in this research, the researcher has proposed a model that determines the halal brand personality and the research has examined the effect of purchase intention and brand trust. Halal is not only religious issue it has an impact on business and trades. It is theoretical model based which is based on the recognized variables which are purchase intention, inter-personal particular, religious commitment with intra-personal and brand trust. This research has a practical implication which opens the new wind on for the market especially for the countries involved in Halal business. The brand trust plays important part of consumer-brand relationship which helps to build a long term strong bond between brands and consumers and extract valuable payoff. These findings have valuable implications for Halal manufacturer. Resultantly, it suggests to apply this model empirically.

Andreas et al. (2013) this study has conducted on the brand management aspects which are brand self-relevance innovativeness, brand customer orientation, and social responsibility on customer commitment to a brand for the study the researchers have collected the data from the responses 167 U.K. and 230 Chinese consumers, by the help of this data researcher wants to do empirically demonstrate in which will show that brand self-relevance and brand innovativeness have impact on brand commitment in cultures that are nonconformist, short-term oriented, and low on power distance whereas it can observe in the United Kingdom while the social responsibility and brand adaptation have mighty influence on binder in norms and values of the high context culture, high on power distance and long-term oriented (i.e. China).

Additionally, study suggest that in collectivist, high-power-distance cultures and long-term-oriented, these are the four brand management activities which are equally contributing to brand commitment.

Lin et al. (2010) in the study done convenience sampling method which was used for collecting primary data from 400 consumers who were asked and 387 effective questionnaires have collected in which the response rate was 96.75%. In order to test the data reliability, validity analysis, correlation analysis, Pearson's correlation and regression analysis. The findings of the research suggested that there is positive relationship exist there in between excitement brand personality trait and extroversion personality and there is significantly positive relation exist in between agreeableness personality trait and sincerity brand personality, excitement brand personality and competence brand personality where as it is observed competence and experience brand personality have a considerably positive impact on affective loyalty whereas peacefulness, competence and experience of brand personality has very highly positive impact on openness personality trait and agreeableness and have a greater positive impact on affective loyalty; agreeableness and openness personality trait have a significantly positive influence on action loyalty.

Zehiret al. (2011) builds the significance of the brand in the markets because brand is the first interface that a customer has as consumers and with the company. The purpose of this research is to identify how company's brand trust develops loyalty toward a brand. Further findings show that brand trust along with level of service and marketing communication provided by the brand has positive impact on brand loyalty. In the study data has collected via random survey with the help of questionnaires by the randomly selection of 258 consumers. The objective of the study has been backed up by the formulation of the questionnaires which were self-administered. This survey was carried over in Turkey. The results of the research suggested that communication by the brand and quality of the service can be perceived by the trust that consumer had for the brand which turns into affecting brand loyalty.

Maläret al. (2011) on the basis of two empirical studies the data has collected from 167 brands and it is evaluated by 1329 and 980 consumers of those particular brand on the basis of it. This researcher finds that moderate level of actual self-congruence has emotional impact on attachment. Self-esteem, product involvement and public self-consciousness both the variable has increased positive impact on actual self-congruence, but it is observed that the impact of ideal self-congruence on emotional brand attachment has decreased. In the study the authors give the important to the managerial implications of these findings.

Zhou et al. (2012) the objective of this study is to identify the mechanism which can help to translates brand communities into brand relationships for that purpose, the research have a sample of brand from the online communities of China. Finding of the study suggested that attachment has played very vital role between brand community and brand commitment and apply partial intervention between brand identification and brand commitment. Whereas the study has observed community–brand similarity and

it has average impact of brand community identification effecting on identification and brand community commitment has average effect on attachment.

Whanet al. (2010) in this research the researcher defines brand attachment and discussed about its perspective which can be measure, develop and validate the measures of brand attachment. To test the concept, the researcher did many tests such as reliability and chi-square. Whereas the results indicate consumers' actions to perform tricky behaviors specially those regard as using consumer resources, brand purchase share in which the share of a brand is directly competing with the other brands, actual purchase behaviors and need share to some extent to which consumers depend on a brand to address which are relevant to the needs, including those brands which are the substitutable product categories.

Fedorikhinet al. (2008) this study is examining that brand attachment which goes away from attitude and determining the consumers' reactions on the brand extensions such as willingness to pay, purchase intentions, forgiveness and word-of-mouth. The effect on the variables can be observe at moderate level, but on the low levels is not fit at. The study furthermore finds our brand attachment has an impact to some extent on brand extension which is categorized as one of the members of the parent brand family, which is partially mediates to the attachment's effects.

Tsiotsouet al. (2010) a model proposed in which the data was collected from 286 consumers of a European country. To test the data, the researcher, use the following statistical tools chi-square, CFA and SEM. The results show the crucial role of brand attachment in developing loyal consumers while they were also indicating the two ways through which brand trust affects to the brand loyalty. There is direct and indirect impact of brand attachment. Whereas the findings suggest that there are two necessary prerequisites in developing strong emotional bonds between consumers and brands are the self-expressive value and relevancy of the brand.

Rampl et al. (2014) conducted study in order to build the importance of brand personality for the employer's prospective. For the purpose the data have been collected via online survey of 927 students. Excluding all those participant who did not participate properly in the survey, the sample covered 310 students. The findings of the research indicate that brand personality has greater influence on employers' brand trust and affect, whereas excitement and sophistication, have negatively affected by ruggedness.

Lee et al. (2009) has analyzed the impact of personality of a brand on user's emotions which might be optimistic and undesirable emotions, brand loyalty and customer satisfaction for the restaurants industry. The data were collected from 475 via questionnaire survey. There are few test apply to the data what are factor analysis, Reliability test and multiple correlation. The findings of the study suggested that emotions have very important part in determining satisfaction and loyalty. Findings also suggest that if a customer has positive feeling in restaurant then there is likelihood of that customer will repeatedly avail the service of the same restaurant because customer has enjoyed the services and hence become loyal to the restaurant and it is exactly wise versus when customer experience has negative experience. Marketers should consider

restaurant brand personality as most important variable and it must be continuously monitoring.

3. Research Methodology

The research has used quantitative explanatory research within the paradigm of correlational design. For the purpose of gathering primary quantitative data from the consumer market of Karachi, Pakistan, the study has purposefully used convenience sampling technique. In regards to sample size estimation, Survey Monkey online sample size estimator has provided that at 95 percent Confidence Interval and 5 percent Margin of Error, the study needs to have 385 minimum sample responses. Therefore, total 503 sample responses from the target population have been collected. Moreover, the data collection instrument was adapted as five-point Likert scale questionnaire and among five measures of brand personality, three measures were taken from Malär and Krohmer et al. (2011) including "The personality of brand is consistent with how I see myself (my actual self)", whereas, remaining two measures were taken from Aaker and Lynn et al. (2001) including "I feel this brand charming". Similarly, all the five measures of brand trust were taken from Matzler et al. (2008); Chanduhuri and Holbrook (2001) including "I trust on this brand". Likewise, all the five measures of brand attachment were taken from Carroll et al. (2006) including "I'm very attached to this brand". All the five measures of brand commitment were taken from Kuan-Yin et al. (2007) including "Brand has offering advantages versus other companies". Five measures were included in customer satisfaction and all were taken from Liang et al. (2011), for instance, "I am satisfied with the brand". Lastly, all the five measures of brand loyalty were taken from Yoo et al. (2000) instance "I will not buy other brands if this brand is available at the store".

4. Data Analysis

4.1. Respondents' Profile

Following table 1 provide frequency distribution of respondents' profile dimensions including monthly income, age group, gender and education.

Table I: Respondent's Profile

Profile Dimensions	Categories	Frequency	Percent
Monthly Income (PKR)	20,000 – 30,000	33	11.7
	31,000 – 40,000	111	39.4
	Above 40,000	138	48.9
Age Group (years)	20 – 30	101	35.8
	31 – 40	102	36.2
	41 – 50	79	28.0
Gender	Male	52	18.4
	Female	230	81.6
Education	Intermediate	100	35.5

Graduate	157	55.7
Master or Equivalent	25	8.9

In the above tabulation, it has been presented that among the total 282 respondents, 138 respondents have monthly income above Forty Thousand PKR and comprising almost 49 percent of the total sample responses, followed by 111 respondents having monthly income between PKR 31,000 to 40,000 comprising 39 percent of the total sample data and lastly, only 33 respondents have monthly income between PKR 20,000 and PKR 30,000 comprising only 12 percent approximately.

Moreover, 102 respondents belong to 31 to 40 years of age group, followed by 101 respondents belongs to 20 to 30 years of age bracket and finally, 79 respondents belong to 41 to 50 years' age group. However, majority of the respondents comprising 81.6 percent were female, whereas, remaining 52 respondents were male.

Lastly, 157 respondents comprising 55.7 percent of the total sample data were graduate, 100 respondents were intermediate and only 25 respondents have masters or equivalent qualification.

4.2. Data Screening

Before analyzing the data, the study has scrutinized the collected data for univariate and multivariate outliers with cut-off values of absolute 3.00 and less than 0.001 respectively, Tabachnick and Fidell (2001); Tabachnick, Fidell, and Osterlind (2001). In this concern, one univariate outlier and nine multivariate outliers were detected and deleted from the dataset. The remaining data consist of 282 responses.

4.3. Exploratory Factor Analysis (EFA)

Following table 2 provide result of KMO and Bartlett's test, whereas, we have used Principal Component Analysis (PCA) to conducted exploratory factor analysis shown in table 3. This table also shows the results of Varimax rotation method with the loading cut-off value at 0.40.

Table II: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.810
Bartlett's Test of Sphericity	Approx. Chi-Square	6890.859
	df	406.000
	Sig.	0.000

The above table showed that KMO sampling adequacy measure found as 0.810 meaning that 81 percent of the total sample data has enough sufficiency to execute exploratory factor analysis. The threshold for KMO sampling adequacy measure, as suggested by Tabachnick and Fidell (2001); Tabachnick et al. (2001), was above 0.70. Moreover, the Bartlett's test is statistically significant at 1 percent confidence interval. This provides that there are statistically significant differences among the loaded factors in

exploratory factor analysis. Hence, in the light of KMO and Bartlett's tests, it has been clearly identified that exploratory factor analysis has been executed appropriately and adequate information has been extracted from the factor analysis.

Table III: Rotated Component Matrix

	Component					
	1	2	3	4	5	6
BL4	0.892					
BL5	0.880					
BL2	0.868					
BL3	0.857					
BL1	0.825					
BA4		0.875				
BA2		0.859				
BA3		0.851				
BA1		0.836				
BA5		0.726				
BP2			0.857			
BP1			0.848			
BP4			0.754			
BP5			0.724			
BP3			0.701			
BC3				0.799		
BC2				0.795		
BC4				0.773		
BC1				0.765		
BC5				0.754		
BT2					0.862	
BT1					0.800	
BT4					0.797	
BT5					0.725	
BT3					0.660	
CS1						0.806
CS2						0.785
CS3						0.714
CS4						0.646

Reliability	0.916	0.891	0.842	0.838	0.831	0.725
Eigenvalue	3.767	3.514	3.155	3.112	3.019	2.286
% of Variance	12.988	12.116	10.878	10.732	10.410	7.884
Cumulative %	12.988	25.105	35.982	46.714	57.123	65.007

The table 3 shows that factor loadings of all the items are greater than the threshold of 0.60, Tabachnick and Fidell (2001); Tabachnick et al. (2001). Hence, considered as accurately loaded into factor analysis. The percentage of total variance were found as 65 percent, greater than threshold of 60 percent, hence considered adequate, Hair et al. (2010); Hair et al. (1998); Tabachnick and Fidell (2001); Tabachnick et al. (2001). Further, all the constructs have Cronbach's Alpha reliability greater than the recommended threshold of 0.70 by Nunnally (1967, 1978). Therefore, the internal consistency was also found suitable for each factor or construct.

4.4. Confirmatory Factor Analysis

4.4.1. Goodness-of-Fit (GoF) Indices

Following table 4 provide relevant model fit indices for both the models including Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM). The threshold for these indices were taken considerable from (Hair et al., 2010; Hair et al., 1998).

Table IV: Model Fitness Indices

Indices	CMIN/DF	GFI	AGFI	CFI	RMR	P-CLOSE	RMSEA
Threshold	<5.0	>0.90	>0.90	>0.90	<0.08	>0.05	<0.08
CFA	1.446	0.939	0.924	0.978	0.042	1.000	0.030
SEM	1.442	0.937	0.924	0.978	0.049	1.000	0.029

All the indices for model fitness were found adequate and have met the recommended threshold values. It showed that both the models including CFA and SEM were appropriately mitigates measurement errors and residuals in both the models. Hence, the model estimations were statistically considerable and it also facilitates certain weak parameters to some extent.

4.4.2. Convergent Validity

Following table 5 showed convergent validity of all the constructs. The convergent validity basically comprised of two major parameters namely CR (Composite Reliability) and AVE (Average Variance Extracted). Both the parameters have been presented in the following table.

Table V: Convergent Validity

Constructs	Composite Reliability	Average Variance Extracted (AVE)
Brand Trust	0.826	0.495
Brand Loyalty	0.909	0.666
Brand Attachment	0.893	0.629
Brand Personality	0.836	0.513
Brand Commitment	0.760	0.520
Customer Satisfaction	0.747	0.432

The composite reliability of all the variables were found significantly higher than the threshold of 0.70 coefficient, as suggested by Fornell and Larcker (1981a, 1981b). Therefore, the constructs have partially achieved convergent validity. Moreover, all the AVE estimates for particular constructs showed greater than 0.50 coefficient value, threshold was suggested by Fornell and Larcker (1981a, 1981b), except Brand Trust and Customer Satisfaction. In this context, it has been established that such little disruption in AVE can be facilitated by adequate model fitness and composite reliability, Hair et al. (1998). Thus, under these circumstances, all the constructs have achieved convergent validity in the larger perspective.

4.4.3. Discriminant Validity

The discriminant validity based on Square-Root of each AVE basically aims to measure distinction among the constructs. The table 6 shows result of discriminant validity:

Table VI: Discriminant Validity

Constructs	BT	BL	BA	BP	BC	CS
Brand Trust	0.704					
Brand Loyalty	0.027	0.816				
Brand Attachment	0.091	0.049	0.793			
Brand Personality	0.106	0.033	0.079	0.716		
Brand Commitment	0.031	0.073	0.010	0.148	0.721	
Customer Satisfaction	0.071	0.105	0.200	0.198	0.031	0.657

The square-root of particular AVE values for all the variables were found significantly larger than the remaining vertical values in the respective column, as suggested by Fornell and Larcker (1981a, 1981b). Thus, all the diagonal values were found considerably higher than its respective vertical values. Hence, discriminant validity has been achieved by all the constructs.

4.5. Path Analysis

Path analysis in table 7 provides cause and effect relationship among the variables i.e. brand attachment, brand trust and brand commitment. Whereas, brand personality was used as first-tier mediator and customer satisfaction was used as second-tier mediator, and lastly, brand loyalty as dependent variable. The results were shown in the following table.

Table VII: Path Analysis

Path Analysis	Estimate	S.E.	T-Stats	P-Value
Brand Attachment - Brand Personality	0.116	0.067	1.735	0.083
Brand Trust - Brand Personality	0.145	0.071	2.051	0.040
Brand Commitment - Brand Personality	0.126	0.050	2.509	0.012
Brand Personality - Customer Satisfaction	0.132	0.036	3.714	0.000
Customer Satisfaction - Brand Loyalty	0.175	0.086	2.042	0.041

The result of path analysis showed that brand attachment (ß = 0.116, p value = 0.083) has and insignificant impact on brand personality, whereas, brand trust (ß = 0.145, p value = 0.040), and brand commitment (ß = 0.126, p value = 0.012) have positive and statistically significant influence on brand personality. Moreover, brand personality (ß = 0.132, p value = 0.000) affects customer satisfaction positively and significantly. Also, customer satisfaction (ß = 0.175, p value = 0.041) also showed statistically significant and positive influence on brand loyalty. Therefore, it has been evidently proven that brand attachment, brand trust and brand commitment were constructive determinants of brand personality, whereas, brand personality inclines customer satisfaction that eventually be translated into greater brand loyalty.

The results further revealed that among brand attachment, brand trust and brand commitment, brand personality was most influenced by brand trust, followed by brand commitment and least influenced by brand attachment. Hence, the companies can profoundly transform their marketing and brand management strategies accordingly for better outcomes.

4.6. Discussions

The results of this research profoundly showed that brand attachment, brand trust and brand commitment have positively and significantly associated with brand personality. In this regards, numerous past studies showed similar results and findings. These studies include Albert, Merunka, and Valette-Florence (2013); Belaid and Temessek Behi (2011); O Bouhlel, Mzoughi, Hadiji, and Slimane (2009); Olfa Bouhlel, Mzoughi, Hadiji, and Slimane (2011); Fullerton (2005); Louis and Lombart (2010); Wang (2002); Zhou, Zhang, Su, and Zhou (2012) and provided that increasing attachment of the consumer with brand eventually causes the brand personality to be develop positively in consumers' behavior and attitudinal aspects. This enhances the intentions to link themselves and improves congruence between consumers' self-concept and personality

traits with the brand's personality traits. Similarly, by developing trust on the brand, the consumer feels its essence more deeply and associate his or her personality with the brand more confidently. Additionally, commitment of the brand translates consumers' perception and self-concept more closely toward developing congruence with the brand personality. Hence, the eventual resultant of such antecedents becomes strong and powerful brand personality in the minds of the consumer.

Moreover, ample past studies showed similar results and findings as in terms of positive and significant influence of brand personality on customer satisfaction, Aaker (1996); Albert and Merunka (2013); O Bouhlel et al. (2009); Olfa Bouhlel et al. (2011); Fullerton (2005); Magin, Algesheimer, Huber, and Herrmann (2003); Sahin, Zehir, and Kitapçı (2011); Wang (2002). These studies strongly manifested that brand personality eventually translates consumers' satisfaction more deeply and lasting. With enhanced and specific personality with less disruption and deviation by time, the perception and image of the brand becomes rooted into the mind of the consumers. In this manner, the pathway that starts from building strong brand personality ultimately improves customer satisfaction and upraise it to the next level. By this, customer satisfaction has profoundly been developed and enhanced by the brand personality and further drive brand loyalty in the larger perspective.

Lastly, we found that there is positive and statistically significant relationship between customer satisfaction and brand loyalty. Numerous past studies showed similar results and proclaimed that undoubtedly, customer satisfaction ultimately leads to brand loyalty in the larger perspective and beneficial outcomes can be gained by such important relationship, O Bouhlel et al. (2009); Olfa Bouhlel et al. (2011); Fullerton (2005); Lau and Lee (1999); Magin et al. (2003); Sahin et al. (2011). It has been clearly and evidently proven that higher satisfaction level of the consumers eventually leads to greater and stronger brand loyalty. The satisfied customers pay more importance to the brand and purchase repetitively due to elevating trust, strong commitment and close attachment with the brand, thus, satisfaction create loyalty.

5. Conclusion

The study aimed to investigate cause and effect connection between brand commitment, brand attachment and brand trust on brand personality, furthermore, brand personality influence customer satisfaction and lastly, brand loyalty was influenced by customer satisfaction in case of Pepsi Cola beverage in Karachi, Pakistan. In this regards, the study has used quantitative explanatory research and employed advance statistical methodology including EFA, CFA and SEM as data analysis techniques. The data were collected from Pepsi Cola consumers of Karachi, Pakistan using quantitative 5-Point Likert scale; used by the previous researcher; questionnaire and collected 282 sample responses.

The results of the study showed constructive and meaningful viewpoint toward Pepsi Cola in Karachi, Pakistan in regards to the brand personality, customer satisfaction and brand loyalty. Therefore, the study concludes that Pepsi Cola has strong brand

personality in the viewpoint of their customers in Karachi, Pakistan. Basically, the Pepsi Cola has successfully developed brand attachment with their customers, improved brand trust and finally, enhanced brand commitment that eventually leads to impressive and attractive brand personality to the Karachi consumers of beverages. Moreover, the brand personality of Pepsi Cola eventually improves customer satisfaction and improved to such extent that transform brand purchase and consumers' purchase behavior into such repetition that formed strong brand association and ultimately develops brand loyalty of the consumers. Under these circumstances, it has been clearly understood that Pepsi Cola has ultimately developed and sustained its brand management and marketing strategies in the larger perspective. By this, Pepsi Cola has undoubtedly built strong brand management in the viewpoint of its customers in Karachi, Pakistan.

5.1. Managerial Implications

PepsiCo should focus on improving and enhancing its brand attachment through adequate marketing tactics and strategies. Focusing on youth generation of Pakistan, PepsiCo can profoundly build strong and vibrant electronic and digital media marketing campaigns to engage their customers into brand management. PepsiCo can also design celebrity endorsed advertisement to improve its brand commitment and attachment with the customers. Consistent taste and quality of the product can eventually drive customers' trust into higher levels. With less diversification and focused strategy for improving product quality, consistent taste and appropriately targeted strategies leads to improve customers' trust and engagement. PepsiCo also figure out many branding and positioning strategies empower their brand and develop strong congruity with their customers' personality. For such tasks, PepsiCo should focus on adequate marketing and digital research. This will help them to acquire extensive customer and market data for adequate understanding about its customers' viewpoint and personalities to manage congruity.

Customer satisfaction should be focused adequately. For this purpose, PepsiCo should focus on customer demand and manage to fulfill customer needs to enhance their satisfaction level to the higher stages. It should also be managing by appropriate Customer Relationship Management (CRM) systems, tools and techniques. Adequate and timely digital marketing strategies can also facilitate PepsiCo to encourage customer satisfaction in the larger perspective. Finally, by doing all such marketing and brand management tools and techniques and customer-centric dimensions of marketing, PepsiCo can eventually gain better customer loyalty towards Pepsi beverage. Moreover, timely advertisement campaign in regards to facilitate customers' intentions and encourage customers to repetitively purchase Pepsi beverage in the long run.

5.2. Future Research

On the basis of current study, following research suggestions have been provided to the future researchers.

- Future researchers should focus on designing and formulating cross-comparative researches among top Cola brands including Pepsi and Coca Cola to improve understanding about the difference of customers' opinion about both the brands.
- Additionally, future researches should also focus to develop certain generic yet versatile conceptual frameworks to gauge customers' viewpoint about FMCG and Beverage products and brands to be implemented in numerous organizations as design to gauge their performance.
- Influence of various complex yet implicative conceptual models and frameworks to encourage companies towards their betterment in planning, execution and performance.
- Evaluation of various marketing efforts and campaigns should be also be taken into consideration as in comparative manner to understand differences among customers' viewpoint and companies' performance.
- Lastly, larger sample size, adequately diversified population and statistically advance methodologies can somewhat provide beneficial and implicative research outcomes to companies, academics, researchers and ultimately contributes to the literature.

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Impact of Corruption on Exchange Rate: Empirical Evidence from Panel Data

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Abstract

This study examines the economic cost of exchange rate. Pakistan has been facing serious issue in regard of exchange rate and this fluctuations impact on various economic indicators or variables. The overall exchange rate value is being depreciated since 2008, it started from Rs 60 against one dollar and recently it reached to Rs, 160 that are equal to one dollar. Corruption has been one of the major problems faced by the countries especially that of developing countries like India and Pakistan and has affected their economy badly due to reliance of both countries on dollar and heavy imports. Time series panel data from 2002-2016 has been used for analysis, it has two cross-sections Pakistan and India. Data is collected from various sources that include Asian Development Bank, Transparency International US and World Economic Indicators. Exchange rate in Pak rupees and Ind rupees, corruption perception index in percentage and foreign borrowings in both Pak rupees and Ind rupees' variables are taken for analysis. Data will be analyzed through statistical techniques which comprises panel unit root test and panel regression analysis in E-views version 7.

Based on predictable results, all studied variables such as corruption perception index and foreign borrowings are found to have significant and positive impact on real exchange rate. In previous studies research scholars investigated overall exchange rate impact on GDP of any economy. This study gives insight into real exchange rate impact on government department corruption of both countries Pakistan and India. This study can be extended to other less developed countries which are also facing problem of exchange rate in their respective countries.

Keywords: *Exchange rate, Corruption perception index, Unit root test*

JEL-Classification: D73, D51, E43, F10

1. Introduction

Currency exchange rate crisis occurs when microeconomic as well as macroeconomic fundamentals experience vulnerabilities. Higher borrowing coupled with higher

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corruption perception index affects exchange rate fluctuations. Asian crisis confirms it. According to Radelet and Sach (1998), many observers criticized widespread corruption and crony capitalism as a root cause for financial crisis. Mc Kinnon and Phil (1997, 1999) analyzed the Asian crisis as the "over borrowing syndrome". Corruption along with lack of transparency and excessive borrowings were thought to be the fundamental causes of exchange rate crisis. Wei and Wu (2001), proposed that corruption may affect the country's structural composition of capital inflows in a way that country faces a currency crisis internally, that can be widened by a sudden reversal international capital flow.

Ghosh and Ghosh (2002), findings showed that countries with poor governance in public sector is much likely to have exchange rate crisis. Eichengreen and Rose (1999), analyzed the impact of corruption; they found that it discourages creditors and Foreign Direct Investment (FDI). FDI suffers more. It creates a shift in composition of capital inflows over FDI. Corruption, nepotism creates hindrances for FDI, international investors need to pay bribery. They need to deal with corrupt bureaucrats, hence the cost of doing business rises. This is one of the reason that exchange rate does not stable due less FDI and foreign currency reserves engulfed by creeping corruption and external borrowings. Same is the case with Pakistan and India. Countries with high level of corruption indices face issues of FDI in their country. Developing countries face this menace in multifaceted forms. Higher debt accumulations/ higher borrowings affect many economic indicators and curb the curve down of economic growth. Foreign exchange sharply declines in line with higher debt accumulations. All these problems have negatively affected on economic growth of these two countries.

The Concept of CPI (corruption perception index) is related to foreign exchange rate fluctuation. Transparency international is global non-governmental organization which publishes CPI, aimed at combating corruption. It is used as an indicator to check the country's' credibility. Higher the level of CPI, higher the chances of currency crisis. It has major impact on FDI. Additionally, every country is a member of some international trade organization. In 21st century, the development /economic models around the world are interdependent on between more than two countries. Therefore, exchange rate does not only create chaos in one country's economy, but it affects the whole region or at least other member of the same trade organization. Moreover, membership in international financial and trade organizations might have a reasonable impact on country credibility. However, when checking for the sample countries membership, each country is found to be a member of some international organization. Nevertheless, membership in the European Union was included in to this study in order to analyze the impacts of being an international organization member on country credibility.

1.2 Objectives:

- To measure the impact of corruption perception on exchange rate of Pakistan and India.
- To measure the impact of foreign borrowings on exchange rate of Pakistan and India.

1.3 Research Questions:

- Is there any impact of corruption perception index on exchange rate of Pakistan and India?
- Do foreign borrowings effect on exchange rate of Pakistan and India?

1.4 Theoretical and Conceptual framework:

An economic theory suggests that if the money borrowed by a country is utilized is efficient and effective manner in the productive investment purpose that has trickledown effect in the economic growth of that country. On the other hand, if the borrowed money is not used properly, due to corruption can badly hit the economy of any country, where exchange rate rises along with inflation in multifarious sectors. This situation is explained by overhang theory. This theory states that if the borrowed money level, exceeds, above the capacity of country to repay it, then, an expected default of country may signal the local and foreign investors to draw their money back. This creates the bottlenecks situations for a country, where borrowings creates dramatic shift in exchange rate. These foreign borrowings negatively affect the economic growth. For the sake of repayments of debt, domestic output is increases via additional taxes, which again creates inflation. Figure 1 depicts the relationship between the constructs of current study.

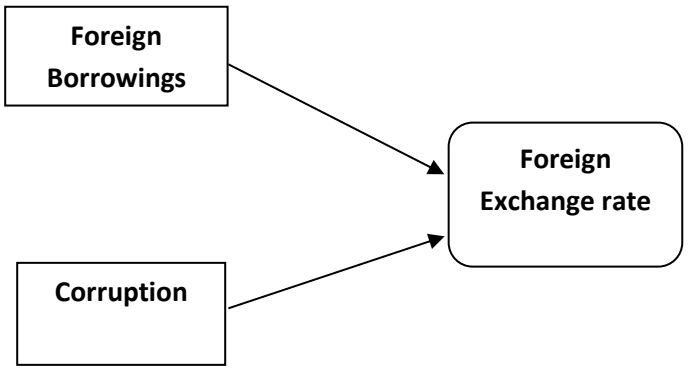

Figure 1: Relationship between the constructs of current study

The rest of this paper follows the structure as: The following section provides review of background of previous related studies literature. Section three discusses the

methodological issues, section four presents observed results. Finally, last section, section five includes some final remarks and future extension proposal / the way forward.

2. Literature Review & Hypothesis Developments

Literature of currency crisis is attributed to (Krugman, 2002) classic paper. His work was further simplified in comprehensive by (Flood and Garber 2008, Agenor et al. 2011). First generation crisis models were based on exhaustible literature resource. These crises occurred because of adverse macroeconomic policy, poorly associated with exchange rate. Models failed. European Monetary System (EMS) and in Mexico crises occurred in same year. Earlier model couldn't justify the reason. Followed by the previous events, 2nd generation model was developed (Obstfeld 1994). This model specifically focused on government policy an exchange rate and other objectives. Again the model failed. Asian crisis of 1997-98 put a question mark on the existing model. Third generation model was developed. Krugman (1999), identified two post approaches to this crisis. The first approach namely moral hazard approach represented (Krugman, 1999) and over borrowing syndrome (Kinnon & Phill, 1999). Corruption coupled with lack of transparency were perceived to be the eventual cause engulfed by the over borrowing throughout the economy.

2.1 Currency Exchange Rate

According to financial dictionary Currency Exchange rate is defined as the value of one currency in terms of in another value e.g. the price at which Pakistani rupee is exchanged for another currency say dollar is exchange rate. For Uddin, Rehman and Quaosa (2014) exchange rate is one of the factors through which currencies can be converted. It is as important as the other factors are such as inflation, interest rate etc. a country's economic position can be gauged by its exchange rates due to its influence on the performance of economies especially that of developing countries because they heavily rely on dollar for their imports. It is analyzed that if corruption has positive effect on yield/real exchange rate, a tight peg routine can increase endured humiliation. Nevertheless, if defilement (corruption) has negatively affects yield/real exchange rate, attached exchange rate routine will decrease capacity of suffered corruption (Popkova, 2010)

2.2 Corruption & Exchange Rate

Corruption has been a pervasive phenomenon for many developing and developed countries, running as an inseparable unit with higher rates of swelling and ambitious spending policies. Corruption is just a single marker of bad institutions. Connection of corruption with other, resource rich countries are frequently described by large amounts of corruption and lease chasing. Specialists discussed an alternate focus but and found proof that there is u-shaped connection between exchange rate and

corruption (Hussain, Sabir, & Meo, 2017). It is analyzed that the effect of corruption on the decision of genuine exchange rate since I surmise that the association between money related approach, financial strategy and debasement has not been adequately considered. It very well demonstrated that if corruption positively affects yield, a tight peg routine to a low expansion nation, which adapts to issues of financial validity, could increment endured corruption (Popkova, 2010). Menace like corruption may have significant affect in composition of if capital inflows for a particular country in a way that it makes more vulnerable for international creditors to shift their expectations (Wei and Wu 2002). In a nut shell, corruption refers to the degree to which firms or sometimes local citizens bribe the officials in their communications to achieve their objectives specifically (for licenses, permits, loans, and so forth). However, in general we perceive corruption more broadly as an indicator for poor governance, which is not only limited to bureaucratic corruption, but to deviations from arbitrary government regulations and rule of law. In, fact the two said hypothesis are interlinked. The degree of corruption in a nation state may affect the composition of inflows in a way that it makes susceptible to foreign creditors to change their perception and shift their capital to another nation state. Importance of compositions inflows, outflows, was highlighted in exchange rate crisis of Russia, East Asia and Latin America. Multiple studies have been made on the correlations between capital inflows a currency crisis. They showed the positive relations. (Wei, S. J., & Wu, Y. (2002). Supporting studies starts with (Frakel & Rose 1996, Sachs, Rodrik and Velasco 1999). Based on above previous studies the alternative hypothesis has been developed:

H1: There is significant impact of corruption on real exchange rate

2.3 Foreign Borrowings & Exchange Rate

Cambridge and business dictionary defines foreign borrowing as the amount of loan borrowed by any government to government or from any international organization. Borrowings can be directly government to or indirectly because of negative BOT. Economic theories by famous economist around world suggest that countries borrow money, in difficult economic conditions of their country in general and in specific to maintain the balance of trade (BOT) or for the settlement of EXIM (export-import) bill. This can be seen in the recent crisis of Pakistan. It is facing the challenges for trade bill settlement. According to official source by government of Pakistan, it has approached the IMF for funds to settle the trade deficit. Dollar reserves are at lowest level in history of last four years (Dawn, Oct., 5, 2018). Therefore deteriorating reserves has put pressure on foreign exchange rate of Pakistan in particular.

In these tough economic conditions, Pakistan is looking for the options to borrow the funds to deal with economic challenges. If the funds borrowed are not utilized in efficient and effective manner and for productive investment or managing BOT, then it can have negative result on the economic growth and economy and on exchange rate. But on other hand if they used for productive investment purpose the results will

be altogether. The recent corruption cases against political leaders is an example of how their corruption has contributed in the appreciation of dollar and devaluation of Pakistani rupee, which has affected the whole economic cycle of the country. Economy will rise with economic growth, and exchange rate would remain stable to attract foreign direct investment in country. The external debt thus accumulates with the passage of time. There comes a situation where it can have negative impact on economy. Irony of debt can be explained by overhang theory (Rabia & Malick 2012). When the amount of debt accumulated crosses the threshold level of any country's repayment capacity, may signal the default of economy in the eyes of investors to draw back their money; this will lower FDI in country and will hit the economy negatively. This study specifically analyzes the impact of foreign borrowings and corruption on foreign exchange rate in Pakistan. One of the indicators of economic growth of any country is gross domestic product (GDP). Investment, corruption, foreign borrowing / debt has major influence on GDP of a country (Giancarlo et al. 1999). Therefore, the model of this study test the influence of corruption and foreign borrowings on exchange rate, which directly or indirectly have major impact on economic growth. Due to the corruption, Pakistan can possibly fabricate a prosperous economy, decrease neediness fundamentally and give the social living, training, and environmental benefits its populace needs. Nonetheless, accessible proof shows that these assets have not been sensibly used to address the issue of the populace as far as human capital improvement due to abnormal state of corruption in the nation. The primary point of this investigation is to look at the effect of corruption on monetary development. The investigation utilized co-combination test, granger causality test and standard minimum square (OLS) technique. We utilized total national output (Gross domestic product) as intermediary for corruption and corruption list as intermediary for corruption. The exact investigation uncovers that there is a long run connection between the dimension of corruption and monetary development in Pakistan and that the effect of corruption on financial development in Pakistan is negative from the ECM result. The ramifications of this finding are that economy cannot develop quickly without zero resilience in corruption. At last, the investigation bolster past outcomes in the writing of the impact of corruption on monetary development (Dr. Nwankwo & Odi , 2014). Based on above previous studies the alternative hypothesis has been developed:

H2: There is significant impact of foreign borrowings on real exchange rate.

3. Empirical Methodology

3.1 Data

This study is based on secondary data and we have collected the data from Pakistan Economic Survey, Transparency International US and World Bank economic indicators. All data sets used in this study are from 2002 to 2016.

Table I: Secondary Data

Year	Corruption Perception Index		Foreign Borrowings		Real Exchange Rate	
	Pakistan (percentage)	India (percentage)	Pakistan (Pak rupees, million)	India (Indian rupees, million)	Pakistan (Exchange rate in US dollar)	India (Exchange rate in US dollar)
2002	2.6	2.7	99,000	-119.3	58.5	48.0
2003	2.5	2.8	63,900	-134.9	57.2	45.6
2004	2.1	2.8	124,690	147.5	59.1	43.6
2005	2.1	2.9	96,573	74.7	59.8	45.1
2006	2.2	3.3	176,316	84.7	60.9	44.2
2007	2.4	3.5	230,353	93.2	61.2	39.4
2008	2.5	3.4	625,858	110.2	79.1	48.5
2009	2.4	3.4	530,756	110.4	84.3	46.7
2010	2.3	3.3	740,172	235.6	85.7	44.8
2011	2.5	3.1	1,086,704	124.5	90.0	53.3
2012	27	36	1,632,084	72.0	97.1	54.8
2013	28	36	1,835,540	72.9	105.7	61.9
2014	29	38	876,992	129.3	100.5	63.3
2015	30	38	1,275,693	127.5	104.9	66.3
2016	32	40	978,858	148.7	104.8	68.0

3.2. Model Specification & Variables

$$RER = \beta_0 + \beta_1 CPI + \beta_2 FB + \mathcal{E} \quad \textbf{(1)}$$

Whereas,
$\beta_{0=}$ Constant Value
RER= Real Exchange Rate
CPI= Corruption Perception Index

FB= Foreign borrowings
$\mathcal{E}$= Error Term

3.3. Unit Root Test

It has been practically observed that the time series data is non-stationary in many cases due to increasing trends in data. If, OLS regression is being applied on non-stationary data findings to be considered by research scholars more an overestimated than the actual once. Augmented Dickey-Fuller (ADF) test usually is applied on individual variable on various levels such as level, 1st difference and 2nd difference until null hypothesis is rejected with assumption that data is stationary. It is highly recommended by the researcher before applying in the OLS regression on research model that the data should be checked for stationary.

To study the test of stationary on time series data, we have applied Augmented Dickey-fuller (ADF). The ADF is based on the following equation:

$$\triangle Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \sum_{j=1}^{k} d_j \triangle Y_{t-1} + \varepsilon_t \quad \textbf{(2)}$$

Where er is pure white noise error, difference operator D is first, Y_t is a variable with time t, a0 is the taken as constant and whereas k is the optimum numbers of lags for the dependent variable. The test of ADF provides cumulative distribution of statistics. The variable will be considered stationary when value of coefficient is less than critical value (Dicky and Fuller, 1979).

3.4. OLS Regression Analysis

The ordinary least squares regression (OLS) is the statistical technique used for data analysis which is commonly known as a linear regression. In this analysis it is used to apply for measuring the relationship between dependent variable and more than one independent variable. In this study there are three independent variables such as corruption perception index and foreign borrowings, one dependent variable real exchange rate.

4. Results and Discussion

4.1 Panel Unit Root Test

Table II: Augmented Dickey-Fuller test statistic (Panel Unit Root Test)

Variable	P-value at 2nd difference	Decision rule for rejection of null hypothesis p-value less than 0.05
Log Real Exchange Rate (Dependent variable)	0.0031**	Rejected null hypothesis (Data is stationary)
Log Corruption Perception Index (Independent variable)	0.0029**	Rejected null hypothesis (Data is stationary)
Log Foreign Borrowing (Independent variable)	0.0489**	Rejected null hypothesis (Data is stationary)

To examine the time series data of this study, we applied Augmented Dickey-Fuller (ADF) panel unit root test. The test was applied after taking log variable at 2nd difference. Table 2 indicates the result of panel unit root test. This table 2 raveled that Augmented Dickey-Fuller test statistic that all studied variables are stationary at level of 2nd difference at level real exchange rate, corruption perception index and foreign borrowings after taking log of variables. As results suggest that data is stationary, now we can apply OLS panel regression on our dependent and independent variables and findings would not be overestimated.

4.2. Panel OLS Regression (Fixed effect Model)

Table III: Panel Least Square Method (OLS)

Independent variables Variable	P-value	R-value	Beta value	Decision rule for rejection of null hypothesis p-value less than 0.05
Log Corruption Perception Index	0.0000**	0.9083or 90.83%	0.128317	Rejected null hypothesis (Significant impact)
Log Foreign Borrowing	0.0000**		0.059397	Rejected null hypothesis (Significant impact)

There are two methods such as fixed effect model and random effect model are applied on panel data. In order to decide which method is appropriate, we applied Hausman test. The results from Hausman test revealed that the fixed effect model is appropriate for this study. Results obtained from fixed effect model are indicated in table 3. A panel least square method table shows three important values, p-value, R-value and value of beta. P-value shows level of significance and value of beta usually determines the relationship between dependent variable with independent variables. The R-value determines overall fitness of model in percentage. In this study that the variable all studied variables such as Log Corruption Perception Index, and log foreign borrowing is found to have positive and significant impact with dependent variable real exchange rate. This model is fit 90.83% that means our independent variables explain to dependent variables in terms of percentage.

The exchange rate is highly unstable in the context of developing countries, the empirical findings of this study revealed that corruption is also one the key reason in developing countries such as Pakistan and India for such behavior. Corruption in government or state owned department devaluate the currency of studied countries which may create serious problems such as negative balance of payment and burden of foreign borrowings. Studied developing countries are not self-sufficient in terms revenue and expenditures. They always look for external or foreign borrowings. However, empirical results of this study indicated that higher foreign borrowings also destabilize currency of country so, country based options should be taken into consideration.

Log RER = 3.381700+ 0.128317 log corruption perception index + 0.059397 log foreign borrowing (3)

5. Conclusion and Policy Implication

The main purpose of this study was to find the impact of measuring the economic cost of exchange rate from Pakistan and India. Secondary data has been analyzed from 2002-2016 in E-view versions 7 through panel unit root test and panel OLS regression. Results indicated that variable all studied variables such as Log Corruption Perception Index, and log foreign borrowing is found to have positive and significant impact with dependent variable real exchange rate. Unique findings of this study is that exchange rate within country create two serious problems for the whole economy such as the level of corruption in government department increased and amount of foreign borrowings also tends to enhanced. The fluctuation of exchange rate needs to addressed at government level. Based on these results it is highly recommended that the government should take certain corrective actions in order to stable the exchange in both countries Pakistan and India. Transparency among the government departments should be developed in order to avoid corruption in stated owned departments.

The empirical findings from this study can be considered for future policy making in studied countries such as Pakistan and India. Both issues the corruption in government departments and foreign borrowings are serious in nature that impact on exchange rate. Therefore, the regulatory authorizes such as State Bank or central Bank of both countries Pakistan and India along with government should design polices for stable exchange rate of respective countries.

5.1. Future Research

- This study can be extended to other developing countries like Bangladesh and South Asian countries.
- A comparative analysis can be done between Pakistan and its nearby countries such as Bangladesh and Sir Lanka.

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Reforming Trade and Transport Connectivity

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Abstract

This paper focuses on the predicament of transport connectivity in Pakistan in its own domestic context and with regards to South Asian and Central Asian regions. It appraises the impact of the derelict transport infrastructure within Pakistan on the ease of transit and the movement of goods and services. Through engagement with various stakeholders, particularly those employed in the various Transportation Ministers, we seek to conduct an appraisal of the efficacy of transportation modes in the country. Furthermore, an extensive review was conducted in order to accurately gauge and assess the current obstacles being faced in this arena and the plausible reforms which can be pursued. Pakistan's socio-economic growth and development is heavily contingent on the refurbishment and expansion of its road, railways, aviation and naval networks. Moreover, an efficient transportation network, though, allowing for seamless transit trade would magnify Pakistan's role in the immediate region and the entire world.

Keywords: *Multi-Modal Transport, Transit Point, Logistics, Regional Integration*

JEL-Classification: O18, F1, R4

1. Introduction

The path to greater regional integration in Pakistan is primarily obstructed by the poor quality of the transportation infrastructure within Pakistan and across its South Asian neighbors. Inefficiency in the provision of adequate transportation services raises the cost of transportation and considerably inflates the transaction costs, limiting gains to South Asian economies from a liberal trading environment. Currently, the high transportation costs, in-adequate cross-border infrastructure, poor institutions and the absence of trade facilitation and regional transit trade agreements, have a dampening effect on regional trade and integration. However, given the geographical contiguity of the South Asian region, there exists great potential for Pakistan to boost co-operation in the arena of connectivity. Rudimentary yet extensive transportation

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networks and linkages do exist in Pakistan as it is a part of the contiguous South Asian subcontinent. The dominant mode of regional transport is through the roadways, which cater to approximately 65-70% of the freight movement in the region. Total length of rail lines in South Asia is more than 79,000 km (WDI, 2016) but the region has yet to be benefited from it as per the potential (Kumar, 2015). The regional ports also play a crucial role in regional connectivity by linking hub ports to allow for the dispersion of bulk goods through main line and deep-sea container and feeder ships.

While improving regional transport systems in South Asia and specifically Pakistan is a formidable task, the benefits from improved regional transport systems in the region are substantial. Road corridors are important in a sense that it helps in promoting trade facilitation and integration in economic zones which ultimately establish economic corridor (Samad and Ahmed, 2014). A World Bank study shows that the impact of implementing efficient transport and trade facilitation measures within South Asia, to imitate successful international examples, would lead to large to a 60% rise in intraregional and 30% increase in interregional trade. However, existing infrastructure gaps hamper the regional trade and transit across border (Ahmed and Javed, 2016).

Thus, since the 1990s, Pakistan has been a part of multiple agreements on augmenting connectivity, comprising its neighbors, with the most significant ones being the South Asian Free Trade Agreement, Afghanistan-Pakistan Transit Trade Agreement (APTTA), ECO (Economic Co-operation Organization) Transit Transport Framework Agreement (TTFA), Quadrilateral Traffic in Transit Agreement (QTTA) and the Central Asian Regional Economic (CAREC) and the China Pakistan Economic Corridor (CPEC). Yet, despite these regional accords, constituent countries have been lagged in adopting and implementing these agreements.

In particular, Pakistan, a country with considerable geostrategic importance for the region, has due to the sheer absence of adequate transport arrangements within the country, squandered the lucrative opportunity to serve as the trade and transit conduit for Central Asia and South and South East Asia. Helping serve the needs of surrounding countries won't have only benefited Pakistan's economic growth but also stabilized its geopolitics. In fact, due to the derelict state of sea, road, rail and air transportation, Pakistan hasn't even been able to fully formalize and realize its trade potential with its immediate South Asian neighbors like India and Afghanistan. Thus, the country hasn't profited from the geographical proximity and contiguity inherent to intra-regional trade. Moreover, the quality and capacity of Pakistan's infrastructure, both in the domestic context and in cross-border areas, is certainly a matter of concern.

Therefore, this study attempts to ascertain the prospects and challenges Pakistan faces in enhancing regional connectivity and trade facilitation in South Asia. In this research, we aim to address the physical infrastructure issues pertaining to roads, railways, maritime and air transport, as well as the non-physical infrastructure issues including custom clearance, cross-border transit facilitation measures and policies and

regulations. Moreover, we also identify key reforms and policy steps which can be undertaken to improve the state of infrastructure of Pakistan.

We seek to answer the following research questions in this study:

- To explore the current state of Pakistan's transportation infrastructure
- To identify the key obstacles of multimodal transport for Pakistan in domestic and regional context.
- To identify key reforms and policy measures for the improvement of Pakistan's, domestic and regional transport connectivity

2. Research Methodology

The design of the study consists of four-pronged approaches, as data was collected from three different sources. Firstly, the vast body of theoretical literature, pertaining to roads, railways, seaports and air transport services, is consulted. In particular, to give a detailed insight into the transportation infrastructure, the Pakistan Economic Survey, 2016-17, is extensively consulted. Secondly, a comprehensive desk review was carried out to extract data on transport sectors such as rail, road, ports and aviation from Pakistan's perspective. To accomplish this, annual reports of Ministry of Railways, Ministry of Ports and Shipping and Pakistan Civil Aviation Authority were used.

Thirdly, in-depth interviews with public officials and private stakeholders were conducted. These included officials from the National Transport Research Center, Ministry of Communication and as well as officials from the Ministry of Railways, Ministry of Ports and Shipping, Aviation division, Ministry of Defence, Ministry of Foreign Affairs, National Logistic Cells and National Highway Authority.

Additionally, another source of information for this research were the interactions with the representatives of various South Asian countries at the Kathmandu Summit as well as the seminars pertaining to transport connectivity, which were held under the exegesis of the 20th Sustainable Development Conference.

3. Current States of Transport Infrastructure

3.1 Pakistan's Transport Connectivity

The inefficiencies of Pakistan's transport sectors such as rail, road, port and aviation are estimated to cost its economy over 4% of GDP (Ahmed et al. 2013). While various governments have tried to pump capital in maintenance of the infrastructure with the help of development partners, capacity to implement these programs has remained weak.

The lack of efficacious transport infrastructure has caused the transaction costs to spike and reduced total factor productivity, and increased inefficiencies. Pakistan has been unable to integrate itself into the wider regional value chains, as, not only does the country lack the requisite transportation network, it's often unable to meet the standards of its regional neighbors (Kumar, 2015; Taneja, 2013). The complex procedures and administrative setup and corruption restricts the effective

implementation of APTTA and it results in lower trade volume between Afghanistan and Pakistan (PAJJI, 2013).

The lack of suitable human resources, poor planning and management skills and an inability to attract external implementation resources has led to time and cost overruns. Over half of the annually trained engineers migrate abroad for employment and declining economic growth has made it impossible to reverse this brain drain (Mehmood et al. 2013).

Hurdles to transport connectivity exist despite Pakistan's membership in multiple regional transport agreements with South and Central Asian countries. Recently, the National Transport Corridor, has assigned $5 billion from $9 billion to be directed towards the improvement of highways. Similarly, while an additional $1.5 billion is to be devoted towards the upgradation of the Pakistan Railways, the rest is to be directed towards revitalizing the ports and airports. (Samad & Ahmed, 2014)

In the latest report by the World Economic Forum, the Global Competitiveness Index has been used to illustrate crucial information regarding the overall economic performance of all countries, gauged through the use of various metric. Pakistan is ranked of 110th place out of a total of 137 countries, in terms of its infrastructure, the second pillar of its economy. Specifically, it is ranked 82nd in terms of its overall infrastructural quality, standing at, the 74th place in road quality; 52nd place in railroad infrastructure; 73rd and 91st places in terms of naval and air transportation. The rankings, along with the respective values that Pakistan scored out of 7 are depicted in Table 1 below.

Table I: Infrastructural Quality in Pakistan

Index	Overall Quality of Infrastructure	Quality of Roads	Quality of railroad infrastructure	Quality of port infrastructure	Quality of air transport infrastructure
Rank	82	76	52	73	91
Value	3.8	3.9	3.3	4.0	4.0

Source: World Economic Forum, 2017

a. Road Sector

Pakistan has witnessed a sluggish yet continuous modernization of its road infrastructure. While, the national highways constitute 4.2 percent of the total road network in Pakistan (Economic Survey of Pakistan), it deals with 85 percent of all road traffic. Highways are concentrated along the North-South corridor with the N-5 alone carrying 55 percent of inter-city traffic.

The derelict state of the road network is primarily due to, "poor maintenance, vehicle overloading, overinflated truck tires and the significant shift from railways to roads in both passenger and freight transport." The prevalence of corruption in the traffic police leads to lax enforcement of traffic laws creates inefficiencies in road development projects. (Ahmed et al. 2013)

Pakistan's trucking sector, which carries cargo through roads, is highly informal and unorganized. Total 260,000 trucks are registered in the country (Economic Survey, 2017-18) however most of them are owned by individual truck drivers, while the rest of them have been contracted out to companies. The biggest problem in the trucking industry is that the insurance costs aren't factored into the overall cost for the truckers. Furthermore, there are routes which are logistically and practically impossible for the trucks to traverse. (Business Recorder, 2017)

Table II: Total Length of Roads in Pakistan (kms)

Years	Category		Total
	Low Type	High Type	
2012-13	91910	171505	263415
2013-14	79635	184120	263755
2014-15	78879	185063	263942
2015-16	76020	188192	264212
2016-17 (July-March)	76070	188331	264401

Source: Pakistan Economic Survey 2016-17

The total length of roads increased marginally from 263,415 kilometers in 2012-13 to 264,401 kilometers in 2016-17. This masked the different changes in low type and high type road. As the low type or unpaved roads decreased by 15,840 kilometers and the high type or paved roads increased by 16,826 kilometers from 2012-13 to 2016-17.

Pakistan's National Highway Authority (NHA) has been instrumental in augmenting economic growth through the integration of the disparate road networks in the country. This network now constitutes "39 national highways, motorways, expressways and strategic roads totaling to 12,131 kilometers." Additionally, 3 sections of Pakistan Motorway, the M-1, which connects Peshawar to Islamabad; the M-2 which links Islamabad-Lahore; the M-3, which extends from Pindi-Bhattian to Faisalabad, are currently in use.

b. Recent Developments

There are 50 ongoing projects and 28 new schemes as of 2016-17, with a cost of Rs. 1,605.6 billion and Rs. 440.60 billion which have been envisaged under the ambit of the NHA. Additionally, the NHA has prioritized and completed the rehabilitation of 3,934.04 kilometers of road since 2012. Work on adding sections to the Motorway is ongoing, with M-4 (Faisalabad-Khanewal-Multan) and M-9 (Karachi-Hyderabad) being constructed on Build-Operate-Transfer or Private-Public Partnership. The NHA has successfully attracted investment from the private sector in 5 projects worth Rs. 144.1 billion.

To further boost the mobility of people, goods and services, the NHA has been tasked with implementation projects valued at Rs.700 billion, connecting Khunjrab to

Gwadar. (Pakistan Economic Survey, 2016-17). To further reduce the burden on the highways, oil shipments shall be transported through the Gwadar-China oil pipeline as part of CPEC. Special Economic Zones (SEZs) and industrial park are major projects under CPEC which will improve the logistics infrastructure and transport network in Pakistan (Hussain et al., 2017).

c. Rail Sector

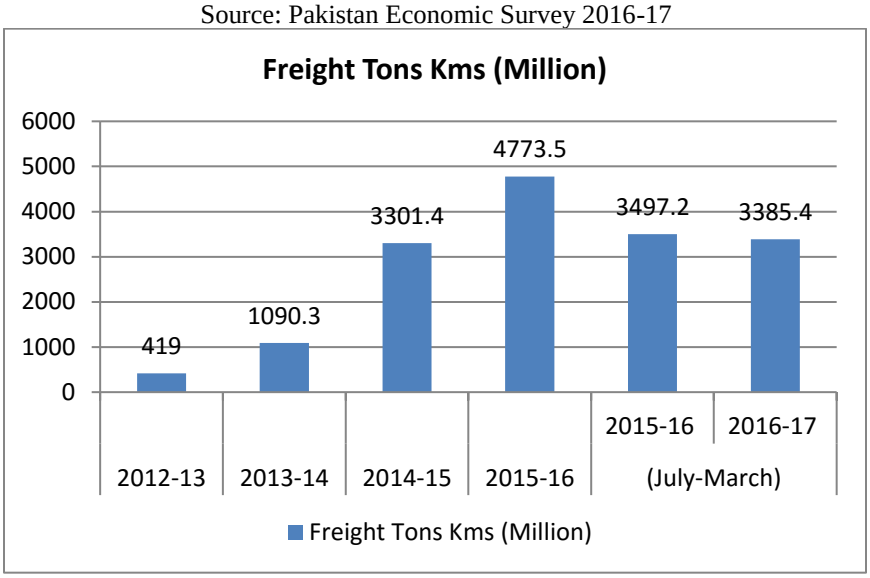
The railway network in Pakistan is still the preferred mode of transport for long distances and for the large scale movement of people and freight. Pakistan Railways provides a cost-effective and environment friendly way to travel. In addition, it has also supported trade by reducing its transaction costs and complemented national integration by connecting to remote rural areas with major towns and cities.

Presently, one of the major issues in the railways sector is the safe and opportune delivery of merchandise to the country's southern seaports. The conventional role of the Pakistan Railways (PR) has been undermined by the National Logistic Cell (NLC), created in 1978 to clear goods from Karachi's ports. Although, now, the commercial role of the NLC has significantly receded as they've lost their rolling stock and the private sector has engaged in crude competition with the NLC due to the tax exemption on the NLC.

As opposed to the cargo load on other transportation sectors, PR due to its inefficient performance only carries 3-4 percent of cargo, and may conceivably augment it to 6-8 percent of the total cargo load. In fact, the maximum the railways carry, even in the developed world, is 10 percent. Still, the railways sector must be accorded greater priority because it forms an integral part of Pakistan's supply chain capability (Business Recorder, 2017).

Bleak law and order situation has reduced business activity and government revenues from the railways sector, reducing the wages paid to employees. (Haque et al., 2011). Other significant issues which have and are inhibiting railways include the lack of active locomotives, the ill maintenance of Chinese engines, the delay in disbursements by the Public Sector Disbursement Program (PSDP), forcing the closure of various routes in the past several years (Ahmed et al. 2013). PR currently possesses 451 Locomotives, 1,732 passengers' coaches and 15,948 freight wagons, while the network extends over 7,791 kilometers.

Source: Pakistan Economic Survey 2016-17



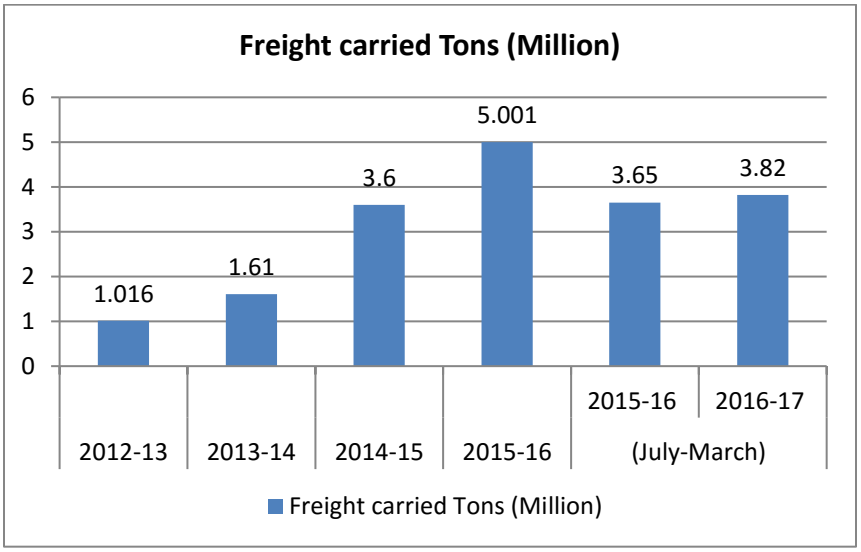


Figure 1: Passenger and Freight Traffic in Pakistan

For July-March 2016-17, a minimal decrease in earnings were registered in the records of Pakistan Railways as the earnings reduced from 26436 Rs. Million to 26268 Rs. Million. There was a 1.51% decrease in the number of passengers carried as compared to the previous period last year (July-March 2015-16). For the same time

period freight tons kms fell by 3.19% and the gross earnings declined by 0.63%. Thus in order to remedy the present state of Pakistan Railways, Pakistan's government, for the financial year 2016-17, assigned Rs. 41 billion as part of the PSDP.

d. Recent Developments

To satisfy the needs of commuters, new trains have been started under public-private partnerships. The private sector has also been taken onboard with regards to the management and operation. The first successful example of such collaboration is the Prem Nagar dry port in Lahore. The upgradation and dualization of Mainline-1 which runs from Peshawar to Karachi and creation of Havelian Dry port and cargo facilities is envisaged under the Early Harvest Projects of the China Pakistan Economic Corridor (CPEC). To this end, framework agreements have been signed between the Governments of China and Pakistan. In order to further assist rail commuters, E-ticketing has been introduced.

e. Aviation Sector

All matters pertaining to the aviation sector in Pakistan are governed by the Pakistan International Airlines Corporation (PIAC). The PIAC started off as a Public Sector Organisation in 1955 but, due to the Pakistan International Airlines Limited (PIAL) Act 2016, it transitioned from a statutory organization to a company governed by companies 1984. (PIA, 2015)

The PIA has a share of 34% in handling domestic cargo and 10% in handling international cargo (Pakistan Civil Aviation Authority, 2017). Flights are operated to a total of 50 destinations serving 28 domestic and 22 foreign destinations. The aviation sector's contribution in Pakistan's GDP is a fraction of 1% even though it accounts for 3.4% of the international GDP. (Hasan, 2015) Most of the air traffic is handled by the Jinnah International Airport in Karachi while the airports in Islamabad and Lahore have also become busy thoroughfares for local and foreign travelers.

The predominant role of PIA is evident through the fact that not only does it account for 73% of the passenger traffic but also approximately covers the entire freight market. PIA dominates the domestic market in Pakistan due to a variety of protectionist governmental policies incentivizing the operations of the PIA and discouraging new entrants from staying in the domestic market. There are a multitude of such measures ranging from the allotting of preferential routes to tax breaks. Due to such an environment, the total number of airlines operating in Pakistan has largely remained stagnant in the past few years. (Ahmed et al. 2013)

f. Recent Developments

The new National Aviation Policy (NAP) announced in 2015, after a hiatus of 15 years, is deemed to be 'forward looking'. Various measures like elimination of investment taxes have been introduced to incentivize investment from investors. To eliminate financial losses, fuel costs have been lowered while taxes on PIAC's revenues shall curb corruption.

The introduction of 20 years old A-310 has lowered the mean age of PIA's fleet to 8% from 10%. Paid-up capital has increased from Rs. 100 million to Rs. 500 million for an airline operation. In addition, airlines, in order to operate domestic and international flights shall be required to have at least 3 and 5 aircrafts, respectively. The government is keen that infrastructure of airports will be refurbished according to international standards (Ghauri, 2015).

g. Maritime Sector

Njinkeu et al (2004) indicate that the trade facilitation through improving the port efficiency increases the trade flows. Pakistan National Shipping Corporation (PNSC) is responsible for managing the Maritime Transport in Pakistan. Since the PSNC is generally efficient when managing risks and is characterized by consistent historical performance, it has a credit rating of AA, indicative of the capacity of meeting its financial dues in a timely fashion.

The introduction of the 24/7 custom operations and establishment of banks in the vicinity of ports has attracted warehousing companies and subsequently strengthened the supply chain (Business Recorder, 2017).

Source: Pakistan Economic Survey 2016-17

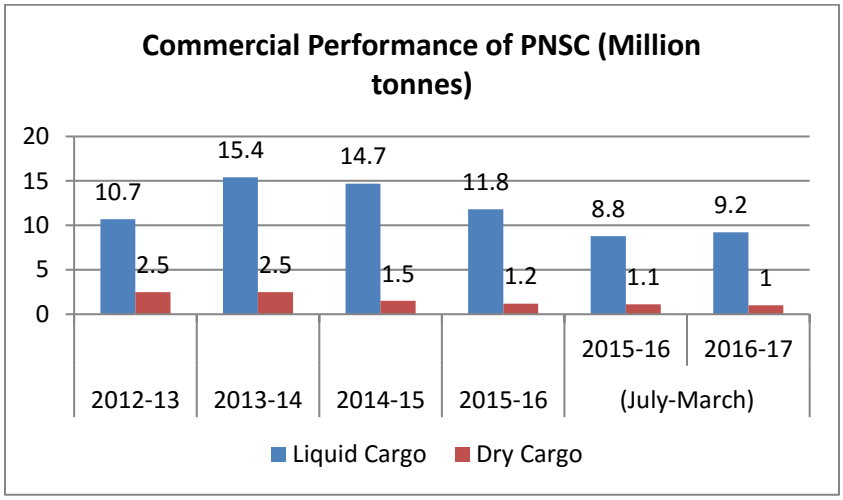


Figure 2: Commercial Performance of PNSC

From the latest data available of July-March 2016-17, records of the PSNC's commercial performance showed that the total cargo lifted was 10.2 million tonnes out of which 9.2 million tonnes of liquid cargo and 1.0 million tonnes of dry cargo was lifted.

Source: Pakistan Economic Survey 2016-17

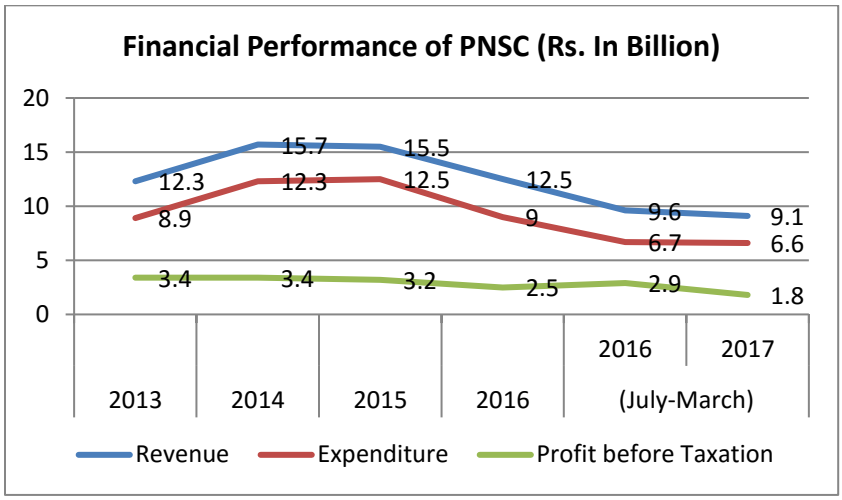


Figure 3: Financial Performance of PNSC

As far as the as the financial performance of PSNC was concerned, all the financial results registered for July-March 2016-17 were the lowest since 2012-13. PSNC's revenues stood at Rs. 9.1 billion, whereas the expenditure was Rs. 6.6 billion with the Profit before Taxation.

In spite of the credit crunch faced by the global shipping industry, the PSNC mitigated the adverse effects by a focus on more profitable ventures. The revenues from foreign tankers grew substantially at 45% and at 24% for slot charter businesses, nearly compensating for the losses emanating from the dry bulk segment. Conversely, the reduction in finance expenses was primarily a result of the benefits derived from swapping and negotiating expensive loans.

h. Major Sea Ports in Pakistan

Of Pakistan's three major sea ports, Port Muhammad Bin Qasim is the oldest port and Gwadar Port the newest port, the Karachi Port Trust (KPT) is by far the busiest sea port in Pakistan. The KPT alone handles almost 60% of the country's total trade volume. The cargo handled during July – March 2016-17 rose by 6.7% over the same period last year due to an improvement in economic activity. During the same period of FY17 exports grew by 8.2 percent and imports declined by 2.2 percent as compared to FY16.

Another major port, the Port Qasim Authority handled 26.677 in July-March 2016-17 as opposed to 23.785 million tonnes in the corresponding last period, reflecting an increase of 12.2 percent. Import cargo during July-March 2016-17 rose by 19.4

percent to 21.604 million tons from 18.092 million tons. The exports handled, fell by 10.6 percent, to 5.072 million tons in FY-17, from 5.677 million tons during FY-16.
On the other hand, the Gwadar Port, is a strategic warm water sea port, situated in the province of Balochistan. This Port was launched in 2007 as a joint Pakistan-China venture, with the start of bulk cargo imports in 2008. As of July-March 2016-17, the recorded port operations show total imports at 53,320 million tonnes and total exports at 1,925 million tonnes. Under CPEC, projects are planned for Gwadar Port City which will promote economic opportunities in Pakistan especially in Balochistan.

3.2 How does Transport Connectivity impact transit trade in Pakistan?

A multitude of issues like the limited transportation routes, cap on tradable goods, dated transportation protocols, as well as the lack of rail wagons, storage facilities and procedural clearance, often inhibit Pakistan's transport infrastructure and stunt transit trade between Pakistan and its neighbors, especially India. (Taneja, 2007; Sahai & Laxmi, 2014) The presence of regulatory impediments at the border crossings within major transport corridors adversely affects the export competitiveness, cost, quality, time and reliability but also prevents it from realizing its comparative advantage. (Wilson & Tsunehiro, 2007; Taneja, 2013).
A huge chunk of planning regarding regional connectivity was done under the tutelage of SAARC. Currently the planned regional roadways, maritime gateways and rail corridors, remain to be materialized. The limited capacity and constrained scheduled of the railways, the fragmented land transport network and over-capacitated Integrated Check Post (IPC) impedes transit trade between Pakistan and India. Due to these constraints, it is 20% cheaper for India to trade with Brazil than Pakistan (Sahai & Laxmi, 2014; World Bank, 2016; Taneja, 2017).
There exist diplomatic tensions between Afghanistan and Pakistan which should be removed so that Pakistan can operationalize prior trade agreement with Afghanistan and through it augur its transit trade with the Central Asian and Middle Eastern economic corridors. If the regional and sub-regional connectivity is to be enhanced with Pakistan's neighbors, then geopolitical issues should be resolved first so that SAFTA, SAARC, CAREC, CPEC, APTTMA, can be fully operationalized. In order to fortify regional value chains in Pakistan, trade facilitation measures involving the provision of transportation networks should be expedited and normalcy should be restored in inter-governmental diplomatic relations. (Ahmed et. al, 2015; Business Recorder, 2016; Pakistan Economic Survey 2016-17)

Table III: Trade Logistics

2016	LPI	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking & Tracing	Timeliness
Rank	68	71	69	66	68	67	58
Score	2.92	2.66	2.7	2.93	2.82	2.91	3.48

Source: World Bank. 2016

Table 3 shows, the scores that Pakistan achieved on various metrics of the Trade Logistics. Pakistan ranked at the 68th position out of 160 countries in terms of its logistics performance index. It scored 2.66 in customs, 2.7 in infrastructure, 2.93 in international shipments, 2.82 in logistics competence, 2.91 in tracking and tracing of goods, 3.48 in timeliness, for a total of 5 points. Pakistan's position in this index signifies that to boost trade growth the country should move towards seamless and sustainable logistics at a more efficient paceas trade flows will increase through better logistic performance and trade facilitation (Hoekman and Nicita, 2008).

Table IV: Trading across borders

Year	Trading Across Borders	Border Compliance				Documentary Compliance			
		Exports		Imports		Exports		Imports	
		Time (hours)	Cost (USD)	Time (hours)	Cost (USD)	Time (hours)	Cost (USD)	USD	Hours
DB 2018	41.94	75	406	129	937	55	257	143	735

Source: World Bank, 2017

According to the Doing Business Report, 2018 published by the World Bank in 2017, while Pakistan has made incremental improvement across various measures in fostering a business environment conducive to trade, substantial progress is still needed. Trading across borders now stands at 41.94 in terms of the distance to frontier, 100. For instance, the time and cost of documentary and border compliance of Pakistan for imports and exports, as illustrated in the table above were significantly higher than that for South Asia and OECD countries.

4. Field Responses

The data gathered from key informant interviews reveals challenges in auguring transit trade through the fragmented transportation networks due to an inefficient national logistics commission. Pakistan can only be economically integrated with its geographical brethren if it modernizes and upgrades the multimodal transport linkages along with the requisite soft infrastructure.

4.1 Lacunas of Pakistan's Domestic and Regional Transport Connectivity

Based on the first-hand experience of relevant officials in the various transportation ministries, transport connectivity suffers due to certain constraints which are discussed below:

4.1.1 Barriers in Road Corridors

There is insufficient capacity of national road transport corridors to serve intraregional traffic in Pakistan. The lack of road bypasses near major towns and cities, and inadequate road access to border constitute additional challenges to the

road transport. The roads providing accessibility to the border points are poorly maintained, narrow and below the capacity needed to handle international traffic.

In Pakistan, basic infrastructure such as parking, warehousing, scanner, testing laborites and other border facilities like customs and immigration, are often inadequate and in poor conditions. Furthermore, only a limited number of road routes have been opened up for trade. For instance, for trade between India and Pakistan only one road route, the Attari/Wagah route is available and open. Besides, only a limited number of goods are allowed to be traded between both countries. At the road borders, traffic, including trucks carrying exported or imported goods as well as passenger cars and pedestrians, often has to stop at the border gates which leads to considerable congestion and delays the timely transit of gods and leads deterioration of entire consignments. Strict technical and phyto-sanitary standards cause trade to be routed completely bypassing land routes.

Besides, there are virtually no bilateral or multilateral agreements, with the notable exception of CPEC, governing road connectivity between Pakistan and its neighbors. One of the key hurdles in promoting road connectivity between Pakistan and India, Iran or Afghanistan, is the tense and volatile relationship Pakistan shares with these countries. This holds particularly true for India, a country with which political and trade ties have often been suspended due to incidents of cross border violence, resulting in the closure of the land routes. That the land routes connecting Pakistan with Iran and Afghanistan, are in areas vulnerable to terrorist attacks, and drastically reduces the incentive of cross border contact.

Due to the lack of optimally cordial ties, visa regimes between Pakistan and its South Asian neighbors are characterized by inflexibility. Often, the visas issued for the purposes of tourism or business are restricted to certain cities and limited to a short time period. This acts as a deterrent for people of the respective countries to make use of the road links between Pakistan and its neighbors.

4.1.2 Barriers in Rail Corridors

A substantial share of those interviewed from the Railways Ministry laid particular emphasis in claiming Pakistan Railways to espouse great potential as a mode of surface transport for long distance freight and passenger traffic movement across South Asia. In Pakistan, the rail transit is hindered due to technical problems and the absence of regional agreements for direct intra-regional movement.

Officials in the Ministry of Railways, cited the lack of standardized technology and operation and maintenance practices; braking systems; inadequate loop lengths; missing links of shorter lengths in the border areas; lack of physical infrastructure at interchange points; load restrictions on bridges; lack of coordination for gauge conversion and capacity constraints, as the major issues riddling the railways sector. Other issues stymieing PR were, the dismal quality of rolling stock for cross-border trade, as wagons, locomotives and coaches are poorly maintained.

Currently, only limited rail routes are operational for cross-border trade. This is largely because of the differences in track gauges and braking system on the Indo-Pak border and restrictions on the types of wagons that can be used. Indian railways and Pakistan railways have the same border gauge railways but due to problems in the wagon balancing systems and inadequate infrastructure facilities at the rail cargo stations, only Pakistani railways carries cargo among Amritsar and Lahore. Though, the outdated stocks of Pakistan's railways adversely affect the performance of the trains at different routes. Particular issues like the inaccessibility of wagons, the necessities of wagon adjusting, the non-containerized rail wagons and the inadequate framework at the rail cargo stations also curtail the commercial purposes of the railways.

4.1.3 Barriers in Maritime Transport

According to maritime officials, the main issues stymieing maritime transportation in Pakistan comprise the lack of cargo and ship handling equipment, outmoded technology, varying levels of siltation at the navigation channels due to tidal fluctuations, inadequacy and poor maintenance of channel marketing and floating old crafts.

Besides, Maritime transportation is inefficient because of the lack of professional management, insufficient computerization of relevant material and the disengagement of laborers. Even though, the automated customs clearance at sea ports is still efficient than that at land ports, complications arise due to the cumbersome nature of port documentation. Radical improvements are needed in the operational efficiency and intermodal connectivity of maritime gateways.

The Pakistan Shipping National Corporation Group (PSNC) has recently experienced intense competition from dry and wet markets. As per its annual report, published in 2016, market competition is more pernicious now because of depressed freight rates as the shipping industry is cyclical and subject to recurrent fluctuations. Though, the local shipping environment gained from favorable conditions of previous years, demand suffered a shock due to the global financial crisis of 2008-09. This in turn has negatively impacted the principal segments of the shipping industry including the freight, asset values and demolition prices.

Therefore, there exists a substantial risk of counterparty default in contemporary markets as the PSNC remains particularly susceptible to the turbulence of the global shipping market. Shipping demand for dry bulk commodities depends on economic trends which are determined by consumer spending patterns. Conversely, the supply of tonnage is contingent on the access to liquidity which differs in every economy. As the balance between demand and supply in the shipping industry depends on the stability of fundamental yet volatile market conditions it's rendered extremely unpredictable and elusive to achieve.

The PSNC also faces operational risks including the risk of counterparty default, technical risks, collision and grounding risks and environmental risks as well as becoming embroiled in legal disputes. The country's naval fleet only consists of

PNSC tankers which are exploitative due to higher freight charges. The business environment in the shipping and ports industry is dismal due to "issues in doing business in terms of customs, immigration, the foreign remittance rules by the central bank, etc", inhibiting competition.

Globally, ships routinely complete their loading and unloading within a span of 2 days, yet Pakistan still gives 10 free days for the performance of this task on state-owned land incurring huge expenses for the government. Borrowing by the Ministry of Maritime Affairs has amplified the effects on rate, cost, and value, leading to financial risks, while changes in the official taxation system have had detrimental changes. Besides, having expanded its role from exclusively focusing on the ships and ports in the country, the Ministry needs to ensure efficiency in its operations.

4.1.4 Barriers in Aviation Gateways

There are several hurdles to the growth of Pakistan's Aviation sector faces major hurdles in its regional and international growth. The country's airports suffer from tremendous capacity constraints for both passengers and cargos. Often, parking areas for aircrafts are missing as are passengers handling areas, with the cargo processing as well as security and baggage handling facilities being largely insufficient. According to an aviation official, there is a dire need for pilots and ground handling staff in airports.

Currently, no Pakistani airline flies directly to any African or Latin American country and the only flights connecting the country to Southeast Asia are two direct flights per week operated to Malaysia. Even the direct flights from Pakistan to India and Bangladesh are only scheduled twice in a week. In spite of the availability of connecting flights to other destinations, there is a great deal of uncertainty in their arrival and departure times.

Due to excessive security checks on airlines flying via Pakistan and the recent slowdown in the aviation sector, international airlines remain generally hesitant to explore the Pakistani market. Domestic connectivity is also constrained by the inept systems of airport handling and lengthy check-in procedures frequently leading to lengthy delays in flights. Even the domestic airports situated in major cities often have insufficient facilities in the case of toilets or lack functioning equipment like scanner machines.

Thus, along with the exorbitant ticket prices, air travel becomes highly inconvenient for domestic travelers as well as for international travelers. A new National Aviation Policy (NAP) only came into place in 2015, a period 15 years and even then only a few budgetary measures were implemented up until now. The sluggish pace of policy formulation and implementation in the aviation sector is further aggravated by the poor state of Pakistan's economy, political instability and the lack of law and order.

4.2. Key Reforms for the Improvement of Domestic and Regional Transport Connectivity in Pakistan

This section deals with the desired regulatory reforms in transportation sector and possible entry points that can facilitate and augment the expansion of trade and transit facilitation in Pakistan. To address the various barriers, the remedial measures were identified. The measures which could be taken to boost multimodal transport connectivity comprise:

4.2.1 Reforms in Road-Networks

An agreement stipulating the opening of new border points for trade and transit, to be drawn up and implemented. Such an agreement should also involve Pakistan and its neighbors assigning transit rights to provide access to the markets and people of neighboring countries helping boost regional trade.

Moreover, Pakistan should modernize its infrastructure of its ICPs. The inclusion of spacious loading zones to accommodate trade consignment should be made mandatory at the various border crossings. Limitations on the size and type of transportation need to be dismantled to ensure that the flow of goods and services through the direct land routes is efficient and cost effective. An improved transportation network would prove conducive for the entire region's growth by rejuvenating regional agreements like SAFTA, CAREC, APTTMA, etc.

Pakistan's Custom authorities have announced the creation of an online national single window of the exemption and concession certificates to improve the ease of doing business. Moreover, Pakistan should adopt a Regional Transport and Transit Agreement with other countries in South Asia to facilitate smooth movement of freight and passengers vehicles across the border through the development of modern physical facilitates at border crossing between Pakistan and its neighbors. The NLC can invest in the infrastructure of transport corridors, to consolidate transport supply chains in and beyond Pakistan.

Pakistan should also endeavor to upgrade the road infrastructure of the portion of the Asian Highway 1 route, extending from Lahore to Torkham and become involved in the revival of the Grand Trunk Road. In addition, alignment to International Transport of Goods Under Cover of TIR Convention can help Pakistan International Freight Forwarders Association (PIFFA) to fortify the Afghanistan-Pakistan-India-Bangladesh-Myanmar (APIBM) corridors and others, transforming into a transit point for Central Asian, South East Asian and Middle Eastern markets.

4.2.2 Reforms in Railways

Those who work in the railways sector propose a multitude of solutions to remedy the problems plaguing the railways sector. Their suggestions include the adoption of multilateral rail transport agreements; the simplification of documents; the standardization of technology including, track expansion and construction for missing links, rolling stocks and signaling; operation and maintenance; as well as the provision

of adequate loop length. Adequately addressing these problems, will enable Pakistan to boost the railways linkages within and beyond the country.

There is a need to develop and adopt the multilateral rail transport agreements by the government of Pakistan to facilitate smooth movement across the South Asian countries. Such an agreement should encompass the provision of, standardized documents; data transfer through IT; adequate loop lengths; multiple interchange points and the elimination of double custom checking. This will make the clearance of goods and vehicles at border crossing extremely efficient enabling the bulk transit and trade.

As opposed to the roads sector, improvements in the railway network connecting Pakistan with India, Afghanistan and Iran might entail greater effort due to the issues of gauge mismatch and multiple missing links between these countries. To have greater connectivity, extensive renovations are required to ultimately achieve an uninterrupted and standardized railway network is an imperative. Yet, according to a railway official, a container train already operates between Islamabad and Istanbul in Turkey, also passing through Tehran, the capital of Iran. If the problems with the rail gauge are solved, a direct container train can operate between Islamabad and Dhaka passing through Lahore, Delhi and Kolkata in between. Ultimately, this can help link Dhaka with Istanbul through Islamabad, thus helping Pakistan play an instrumental role in linking West Asia to South Asia, thereby gaining immense geostrategic importance.

4.2.3 Maritime Reforms

The PSNC seeks to engage in dealings with only those parties in the private sector who are financially and commercially sound. The high interest burden on current debt has already been efficiently reduced. The State Bank, should further reduce the interest rate on debt financing that is levied on the shipping sector and rationalize taxes (sales, incomes, etc.) levied on imports and liberalize the usage of foreign currency.

Measures to revamp port infrastructure to raise the efficacy and cost-effectiveness of port operations are being undertaken to improve utilization capacity of the KPT, Bin Qasim Port and Gwadar Port. Additionally, the PSNC aims to reduce lay-can time, expand its fleet and meet the rising demand of petroleum products through the procurement of oil transportation vessels.

The India-Pakistan Shipping Protocol, 1975, should be revised to allow for direct transshipments, rather than trade being routed through a third country. Ferry services from Karachi-Gwadar and Karachi-Iran for the purposes of tourism and business should be introduced. The old naval management and workforce, should be replaced with competent managers and workers.

Future plans for the KPT involve the reconstruction of berths, the construction of an elevated port expressway, the establishment of the Karachi Harbor Crossing, the establishment of a cargo village and an industrial park. The construction of South Asia

Pakistan Terminal as well as the Keti Bunder will lower the burden and costs on the roads and seaports.

Under CPEC, Chinese investors have expressed interest in the refurbishment of the Gwadar Port to establish a "Marine Silk Route", linked with the heavy industries in the Gwadar Free Zone. Further, the construction of the "Gwadar Port Eastbay Expressway" and an adjacent railway is envisaged to augment the connectivity between the seaport and the land transport networks.

4.2.4 Aviation Reforms

Pakistan can initiate several reforms in the aviation sector to augment its connectivity with the regional aviation gateways. With regard to aviation, Pakistan airports suffer from tremendous capacity constraints, on-shore and off-shore, for both passengers and cargo, in terms of runways, parking areas for aircrafts, passenger handling areas, cargo processing facilities, as well as security and baggage handling facilities. There is urgent need of pilots and ground handling staffs in airports. South Asian countries may also jointly set up a regional aviation training institute in the region. In addition, an Open Sky Policy for airlines originating from within the region may help in strengthening the connectivity between important cities.

For advancing regional and global aviation connectivity, a stronger regional cooperation is needed in South Asia. Such cooperation may encompass important areas like aviation safety such as cooperative development of operational safety and airworthiness, development of infrastructure, standards, cooperation among air traffic controls, etc. South Asian region may follow the ASEAN template of regional aviation cooperation as these countries have adopted a Multilateral Agreement on the Full Liberalization of Air Freight Services and a Roadmap for the integration of Air Travel Services.

5. Conclusion

Pakistan faces unique problems in proliferating and consolidating multi-modal transport across and beyond the country. Most significantly, the negligence of successive governments has allowed long-standing issues to fester and aggravate. Pakistan's government has remained willfully oblivious to the innumerable benefits that Pakistan can receive if it moves towards achieving regional and domestic integration through investment in transport networks. Despite incremental improvements in various mode of transport, the country's airways, maritime, roads and railways remain underutilized.

Several issues have contributed to the lack of viable transportation systems making it exceptionally hard to augment the flow of goods, services and people through Pakistan. Often times, there are no facilities as far as parking, warehousing, scanner, testing laborites, money exchangers, telecommunication services, etc. are concerned. Other amenities often happen to be particularly insufficient due to the rigidity of the visa framework and the stringency of customary and procedural process. The latter

issue is exacerbated by recurrent changes in the quality standards and TBT and SPS restrictions.

Various stratagems can be adopted and utilized to remedy the prevalent situation at the Pakistan's borders. These may include clarity and concurrence on sanitary and technical measures as well as ease in obtaining visas, speeding up the process custom clearances and the universal provision of communication and financial services at border points.

To ensure optimum use of transport facilities, for the purposes of the transportation of passengers and freight goods, within and outside of its borders, concerted efforts need to be made to resolve the multitude of problems stymieing this sector. For such a goal to be attainable, the ruling government needs to be at the forefront of mobilizing political support of senators and across party lines and among their constituencies. Furthermore, a non-partisan research and development institute, consisting of members of academia and experts on transport, should be tasked with conducting the socio-economic appraisal of any proposed infrastructure projects.

Besides, the government can involve and enlist the help of the private sector in the infrastructure projects that are launched. The Build-Operate-Transfer (BOT) scheme which is already in place mainly for the construction of roads can be extended to other ongoing and potential projects in the railways, maritime and aviation sector. While the issues that often arise in the operation and execution of the various means of transport are identical. This may signify that different government ministries can co-ordinate their efforts and jointly cooperate to address these issues.

On the regional level, Pakistan should restart and reinvigorate bilateral and multilateral trade and transit agreements. Though, prior to this, Pakistan needs to establish cordial relationships with its neighbors especially Afghanistan and India so as to avoid the disruption of transport services in the region. Treaties involving Pakistan and pertaining to regional multi-modal transport infrastructure should be given precedence at the highest levels of regional and global forums by the country.

To ensure effective implementation, the treaties/agreements should be ratified with the government devising feasible action plans with attainable deadlines for greater assimilation of the plethora of transportation networks that exist in South Asia. Moreover, due to Pakistan's unique geo-strategic location, the country stands to monumentally benefit if it proceeds to embrace the global trend of greater integration, as it will gain access to the skilled peoples and expansive markets of its immediate neighbors but also of countries in Central Asia, the Middle East and South East Asia.

Finally, CPEC programme could be leveraged for overall improvement in logistics supply chain. This will require expediting the establishment of CPEC authority to oversee timely completion of projects, agreement of China and Pakistan on financing of ML-1 railway line, and development of port cities other than Gwadar which can overtime provide greater capacity to service transit goods for Afghanistan, China and central Asian economies (Ahmed,2019). Overtime these efforts are also going to benefit the development of Special Economic Zones (SEZs) under CPEC programme

and help SEZs to connect with Chinese markets. Along with this, CPEC will also develop financial market integration among China and Pakistan (Manzoor et al. 2019).

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Impact of Customerization and Customer Engagement on Brand Love with the Mediating role of Brand Performance: Evidence from Hotel Industry of Pakistan.

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Abstract

Attracting and retaining customers is considered essential for success of any business entity operating all across the globe. Therefore, customer needs and demands need to be emphasized in order to earn a profitable market share. The present study has focused on the independent role of customerization and customer engagement with the mediating effect of brand performance (brand awareness, brand image and brand satisfaction) on brand love. The study has been conducted in a cross-sectional and causal manner. Data was collected through convenience sampling technique from 230 respondents, out of which 183 questionnaires were fully attempted, with a response rate of 79. 5%. Responses were analyzed through frequency distribution, correlation, simple linear regression and structural equational modelling analysis. The findings of the study have indicated positively significant relationships of customerization and customer engagement with brand performance and brand love.

***Keywords**: Customerization, customer engagement, brand performance, brand awareness, brand image, brand satisfaction, brand love, Pakistan.*

JEL-Classification: M31

1. Introduction

Customer's relationship with a brand is considered as a successful mantra for understanding brand equity. It is also considered vital for long-lasting association and holds affectionate emotional attachment towards any brand (Zablocki et al., 2017). Customer and brand relationships have been studied in several contexts including brand image (Anselmsson et al., 2014; Nyadzayo & Khajezadeh, 2016; Zhang, 2015), brand satisfaction (Lin, 2015; Wilson & Persson, 2017), brand awareness (Huang & Sarigöllü, 2014; Barreda et al., 2015) and brand love (Wallace et al., 2014; Drennan et al., 2015). Contemporary literature has discovered that customers can develop a deep

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emotional attitude towards any specific brand (Juanjuan et al., 2018). Shimp and Madden (1988) and Carroll and Ahuvia (2006) have illustrated that brand love is keener towards perception and analysis (Liu et al., 2018). Although, brand love is often perceived as a vital customer-brand association concept, yet very little is known about the relationships and emphasis of some important factors such as brand awareness, brand image and brand satisfaction on brand love. For instance, brand love might be affected by brand or product characteristics including the product itself and quality (Bagozzi et al., 2017). Limited studies have inspected the concept of brand love under the influence of customer relationship building as the effectiveness of the measure and concept of brand love has been challenged by some researchers (Fetscherin et al., 2015), exclusively due to the lack of academic support of associations between brand performance dimensions. Hence, the present study intends to determine the significance of measurement of brand love considering the influence of customerization and customer engagement and three dimensions of brand performance i.e. brand awareness, brand image, and brand satisfaction. Customers getting deeply involved with a brand is probably their strongest feeling towards a brand and this should be a prime consideration for organizations (Pawle & Cooper, 2006). Previous studies have revealed a great deal of emotional attachment with various brands and products in diversified contexts (Batra et al., 2012; Albert & Merunka, 2013; Huber et al., 2015; Langner et al., 2015).

Brand love holds a decisive position in the prosperity or failure of a brand which can either result in a positive or negative manner. A large number of consumers, all across the globe, uses internet for information search and alternatives evaluation before making purchase decisions about brands for everyday use as well as luxurious brands. Global firms are rigorously accommodating and embracing developments in order to expand growth and market share. Considering these circumstances, hoteling industry in particular is expected to increase in the near future and the interest in dining out might increase significantly. The essential matter for the current study is the importance and existence of customerization and customer engagement with brand love under the influence of brand performance i.e. brand awareness, brand image and brand satisfaction. Additionally, this study has concentrated on the independent roles of customerization and customer engagement with brand performance as a mediator along with brand performance's impact on the dependent variable i.e. brand love in the hoteling industry of Islamabad and Rawalpindi. For this purpose, consumers from two major cities of Pakistan (Islamabad and Rawalpindi) were selected as a sample to analyze brand love that is influenced by customerization, customer engagement and brand performance.

The present study has focused on an exploratory nature in the aspect of customerization to develop love for brands from the perspective of restaurants in Pakistan. Furthermore, the study intends to highlight the mediating role of brand awareness, brand image and brand satisfaction as well. The current study aims to contribute towards existing body of knowledge by developing an understanding about customer's needs and expectations from a brand. Inadequate work, in marketing

context, has been brought forward by any previous study related to the needs of customers in specific hotel brands in developing countries, therefore the present study serves as a reference and correspondence for upcoming studies. The study also intends to provide in depth knowledge regarding the hotel industry trends in Pakistan.

2. Literature Review

The phenomenon of brand love finds its roots from the concepts of interpersonal relationship and love (Batra et al., 2012; Langner et al., 2015). Fournier (1998) was one of the foremost researchers to elaborate on customers getting emotionally attached with brands. Few recent studies have also depicted that customer's engaged in brand modifications develop a deep emotional attachment with the brand (Aro et al., 2018; Hsu & Chen, 2018). Desires for a brand have been acknowledged to play a vital role in order to maintain strong relationships with the customers (Kudeshia et al., 2016). In order to increase brand love, customers should have a positive attitude towards a brand and past experiences, along with emotional proximity towards the brand (Alex & Joseph, 2012). Generally, a brand which is loved becomes an integral part of a customer's identity (Albert et al., 2008; Wallace et al., 2014; Huber et al., 2015). Additionally, brand awareness (Otero & Wilson, 2018), brand image (Aro et al., 2018) and brand satisfaction (Aro et al., 2018) have also been recognized as the predictors of brand love.

2.1. Customerization, Brand Awareness, Image, Satisfaction and Love

For past few years, the concept of mass customization is being reconsidered in the marketing literature and business paradigm. Organizations today, ranging from fast moving consumer goods to luxury items, are offering highly modified products with a wide range of classes, sub classes and categories. Companies such as priceline and dealtime deal in modified prices due to which they let customers to specify their prices and discover such providers that are interested to sell items at those prices. Dell has established customized websites commonly known as premier pages for business customers where the employees of a specific organization can order parts as per specified requirements. This phenomenon is commonly known as customerization which is largely attributed to redesigning of marketing strategies from the perspective of customer. Such organizations are ahead of just catering new markets. They intend to deliver modified products at a minimal price while executing marketing practices from buyers-perspective rather than merely focusing on selling perspective. With the passage of time, mass customization has gained popularity to a great extent, organizations are more intended to provide customized and modified products and services in order to satisfy individual customer needs (Pine, 1993). Despite that, customized or modified products or services does not guarantee sustainability because competitive edge arrives by continuously upgrading quality for products, required by every individual customer, throughout the value chain (Pine, 1993). Competition today is mostly based on communication with customers in order to create value

(Kwak et al., 2018). Furthermore, the interaction between a customer and the organization itself is not limited to services sector or marketing practices only. Present organizations are co-designing value with their prospective customers along the customer participative chain (Bel, 2018), from the co-creation of new products and services (Ramaswamy & Ozcan, 2018), to production, distribution, assembly, after sales services till usage (Bettiga & Ciccullo, 2018; Saeed et al., 2018).

Generally, the customer is the value co-creator which results in a continuous process of value co-development. In this sense, a general awareness for the brand is created to purchase more and refer to peers and friends. The image of the brand improves to an extent and the needs and demands of the customers are fulfilled which can satisfy a customer. In such sense for customerization a deep affection or emotional attachment with the brand is created. Thus, it is hypothesized that:

H_1: Customerization has a positive impact on brand awareness.
H_2: Customerization has a positive impact on brand image.
H_3: Customerization has a positive impact on brand satisfaction.
H_4: Customerization has a positive impact on brand love.

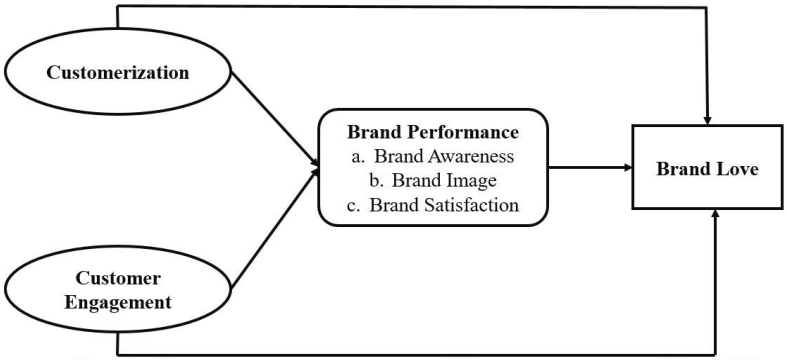
2.2. Customer Engagement, Brand Awareness, Image, Satisfaction and Love

The concept of engagement was first introduced by Kahn (1990) while elaborating its psychological prerequisites. Recent studies suggest that companies have been commencing programs in order to engage prospective customers and measuring levels of customer engagement as an outcome (Bagozzi & Dholakia, 2006). Since 2005, the concept of customer engagement has been widely used in the marketing literature (Fernandes & Esteves, 2016). Customer engagement is a highly used psychological perspective, defined by a particular emphasis which plays a crucial role in the mechanism of relational exchange (Fernandes & Esteves, 2016). Furthermore, various relational exchange act as an antecedent or the consequences in the processes of customer engagement. Customer engagement is defined as a complex phenomenon that is comprised of emotional, behavioral and cognitive aspects (Brodie et al., 2011). Patterson et al. (2006) described customer engagement as the degree of a customer's emotional, cognitive and physical presence in association with a service organization. Customer engagement is referred to as an immense context-particular construct that effects customer choices in relation to organizations, brands, products and services (Patterson et al., 2006). Bowden (2009) has described customer engagement as a psychological procedure. Customer engagement is additionally distinguished by altering levels i.e. context or individual specific (Bowden, 2009; Sprott et al., 2009).

Generally, whenever customers are involved in the process of value creation for any specific brand, the awareness will increase. Value creation generally impacts brand image in a positive manner, therefore increasing the satisfaction from a brand which eventually results in increased brand love. Thus, it is hypothesized that:

H_5: Customer engagement has a positive impact on brand awareness.
H_6: Customer engagement has a positive impact on brand image.
H_7: Customer engagement has a positive impact on brand satisfaction.
H_8: Customer engagement has a positive impact on brand love.

3. Theoretical Model



4. Methodology

The present study has opted for positivist research paradigm, deductive approach and quantitative data analysis techniques. As the data was collected at one point in time, the time horizon for this study was cross sectional. In order to analyse the impact of customerization and customer engagement on brand love with the mediating role of brand performance in the hotel industry of Pakistan, all the primary information was collected through a self-administered questionnaire distributed through convenience sampling technique. Items for measuring variables of the study were adapted from reliable and generalized sources. The number of items and their respective sources have been summarized in Table 1. The final questionnaire had 6 demographic questions and 48 items for measuring variables. All the items measuring variables were accounted for on a 5-point Likert scale with options ranging from Strongly Disgree = 1 to Strongly Agree = 5. A total of 230 questionnaires were distributed among consumers of famous hotels and restaurants out of which 183 were fully filled with a response rate of 79. 5%. Data was analysed through reliability, correlation, simple linear regression, and structural equational modelling technique for mediation analysis. The data was analyzed in SPSS version 20 and AMOS version 18 for structural equational modelling.

5. Data Analysis and Results

5.1. Demographics

Demographic statistics indicate that the total sample was comprised of 76.5% male and 23.5% female respondents. Respondents belonging to age group of 21-25 years

comprised highest percentage of the sample i.e. 34.4%. Those belonging to age group of 16-20 years comprised 15.3%, 26-30 years comprised 32.8%, 31-35 years comprised 9.8%, 36-40 years comprised 6.6% and 41 and more years comprised 1.1% of the total sample. When it comes to highest level of education, most number of respondents were MS/M.Phil. degree holders comprising 36.6% of the total sample. Intermediate degree holders comprised 15.8%, Bachelor's degree holders comprised 24%, Master's degree holders comprised 23% and Doctorate degree holders comprised 0.5% of the total sample. 53% of the respondents were full time employed, 30.6% were studying on full time basis, 8.2% were self-employed, 5.5% were part-time employed and 2.7% of the respondents were unemployed. Analysing the income level, 43.2% of respondents were earning less than 25,000 PKR, 38.8% were earning 26,000-50,000 PKR, 11.5% were earning 51,000-75,000 PKR, 3.8% were earning 76,000-100,000 and 2.7% of the respondents were earning more than 100,000 PKR per month. 65% of the respondents were unmarried, 34.4% were married and 0.5% were separated. 92.3% of respondents preferred famous restaurants in the twin cities such as Monal while 7.7% consumers depicted interest in less known restaurants.

Table I: Reliability of Variables, Number of Items, and Sources

Variables	No. of Items	Cronbach's Alpha	Items Source
Customerization	4	.791	Zhang et al., 2007
Customer Engagement	3	.801	Fernandes & Esteves, 2016
Brand Awareness	5	.812	Yoo & Donthu, 2001
Brand Image	14	.866	Kariuki, 2015
Brand Satisfaction	6	.835	Oliver, 1980
Brand Love	16	.880	Sternberg, 1997

The default value for reliability should be above 0.5 which indicates an average reliability, 0.6 indicates better reliability, 0.7 indicates good reliability, 0.8 indicates best reliability and 0.9 or above indicates excellent reliability respectively. The value of reliability should be above -1 and below 1 (Gliem & Gleim 2003; Alexander et al., 2018). Table 1 indicates the reliability analysis for customeization, customer engagement, brand awareness, brand image, brand satisfaction and brand love. The reliability for customerization is .791 with 4 items, for customer engagement is .801 with 3 items, for brand awareness is .812 with 5 items, for brand image is .866 with 14 items, for brand satisfaction is .835 with 6 items and .880 for brand love with 16 items respectively.

Table II: Correlation

Variables	BL	CE	BA	BS	BI	CUSTOM
BL	1	-	-	-	-	-
CE	.746**	1	-	-	-	-
BA	.723**	.748**	1	-	-	-
BS	.890**	.778**	.732**	1	-	-
BI	.982**	.764**	.711**	.825**	1	-
CUSTOM	.725**	.891**	.851**	.785**	.713**	1

** Correlation is significant at 0.01 level

Table 2 indicates that a significant relationship exists between customer engagement and brand love possessing a significant positive correlation of .746 at 0.000 level, a positively significant correlation of .723 at .000 level exists between brand awareness and brand love while a positive correlation of .748 exists between brand awareness with customer engagement statistically significant at .000 level respectively. A positively significant correlation of .890 at .000 level exists between brand satisfaction and brand love, a positively significant correlation of .778 at .000 exists with customer engagement and .732 positively and statistically significant at .000 correlation exists with brand awareness respectively. Positive and significant relationship of .982 at .000 level occurs between brand image and brand love, .764 significant at .000 level occurs with customer engagement, .711 significant at .000 level occurs with brand awareness and .825 significant at .000 level occurs with brand satisfaction respectively. At last, customerization has a positively significant association of .725 with brand love, .891 significant at .000, .891 with customer engagement, .851 with brand awareness, .785 with brand satisfaction and .713 with brand image respectively.

Table III: Regression for Impact of Customerization on Brand Love

Variables	DV	B	R^2	ΔR^2	Sig.
CUSTOM	BL	.573	.525	.522	.000

Table 3 indicates the effect of independent variable i.e. customerization on the dependent variable i.e. brand love. Customerization has an effect of .573 on brand love that is statistically significant at .000 level respectively. The results and significance specify a clear effect of the independent variable on dependent variable. Significant value that exceeds 0.05 indicates insignificance while below 0.05 indicates significance (Bolin, 2014).

Table IV: Regression for Impact of Customer Engagement on Brand Love

Variables	DV	β	R^2	ΔR^2	Sig.
CE	BL	.545	.557	.555	.000

Table 4 indicates the effect of independent variable i.e. customer engagement on the dependent variable i.e. brand love. Customer engagement has an effect of .545 on brand love which is statistically significant at .000 level respectively. The results and significance depict definite effect of the independent variable on dependent variable.

Table V: Regression for Impact of Customerization on Brand Awareness

Variables	DV	β	R^2	ΔR^2	Sig.
CUSTOM	BA	.846	.724	.723	.000

Table 5 indicates the effect of independent variable i.e. customerization on the dependent variable i.e. brand awareness. Customerization has an effect of .846 on brand awareness which is statistically significant at .000 level respectively. The results and significance show certain effect of the independent variable on dependent variable.

Table VI: Regression for Impact of Customerization on Brand Image

Variables	DV	β	R^2	ΔR^2	Sig.
CUSTOM	BI	.577	.508	.505	.000

Table 6 indicates the effect of independent variable i.e. customerization on the dependent variable i.e. brand image. Customerization has an effect of .577 on brand image which is statistically significant at .000 level respectively. The results and significance signposts assured effect of the independent variable on dependent variable.

Table VII: Regression for Impact of Customerization on Brand Satisfaction

Variables	DV	β	R^2	ΔR^2	Sig.
CUSTOM	BS	.739	.616	.614	.000

Table 7 indicates the effect of independent variable i.e. customerization on the dependent variable i.e. brand satisfaction. Customerization has an effect of .739 on brand satisfaction which is statistically significant at .000 level respectively. The results and significance specify assured effect of the independent variable on dependent variable.

Table VIII: Regression for Impact of Customer Engagement on Brand Awareness

Variables	DV	β	R^2	ΔR^2	Sig.
CE	BA	.686	.559	.557	.000

Table 8 indicates the effect of independent variable i.e. customer engagement on the dependent variable i.e. brand awareness. Customer engagement has an effect of .686

on brand awareness which is statistically significant at .000 level respectively. The results and significance identify a sound effect of the independent variable on dependent variable.

Table IX: Regression for Impact of Customer Engagement on Brand Image

Variables	DV	β	R^2	ΔR^2	Sig.
CE	BI	.571	.584	.582	.000

Table 9 indicates the effect of independent variable i.e. customer engagement on the dependent variable i.e. brand image. Customer engagement has an effect of .571 on brand image which is statistically significant at .000 level respectively. The results and significance report a vibrant effect of the independent variable on dependent variable.

Table X: Regression for Impact of Customer Engagement on Brand Satisfaction

Variables	DV	β	R^2	ΔR^2	Sig.
CE	BS	.677	.606	.603	.000

Table 10 indicates the effect of independent variable i.e. customer engagement on the dependent variable i.e. brand satisfaction. Customer engagement has an effect of .677 on brand satisfaction which is statistically significant at .000 level respectively. The results and significance refer to vital effect of the independent variable on dependent variable.

Table XI: Regression for Impact of Brand Awareness on Brand Love

Variables	DV	β	R^2	ΔR^2	Sig.
BA	BL	.575	.522	.519	.000

Table 11 indicates the effect of independent variable i.e. brand awareness on the dependent variable i.e. brand love. Brand awareness has an effect of .575 on brand love which is statistically significant at .000 level respectively. The results and significance illustrate a definite effect of the independent variable on dependent variable.

Table XII: Regression for Impact of Brand Image on Brand Love

Variables	DV	β	R^2	ΔR^2	Sig.
BI	BL	.959	.965	.964	.000

Table 12 indicates the effect of independent variable i.e. brand image on the dependent variable i.e. brand love. Brand image has an effect of .959 on brand love

which is statistically significant at .000 level respectively. The results and significance specify a clear effect of the independent variable on dependent variable.

Table XIII: Regression for Impact of Brand Satisfaction on Brand Love

Variables	DV	β	R^2	ΔR^2	Sig.
BS	BL	.747	.791	.70	.000

Table 13 indicates the effect of independent variable i.e. brand satisfaction on the dependent variable i.e. brand love. Brand satisfaction has an effect of .747 on brand love which is statistically significant at .000 level respectively. The results and significance show a wholesome effect of the independent variable on dependent variable.

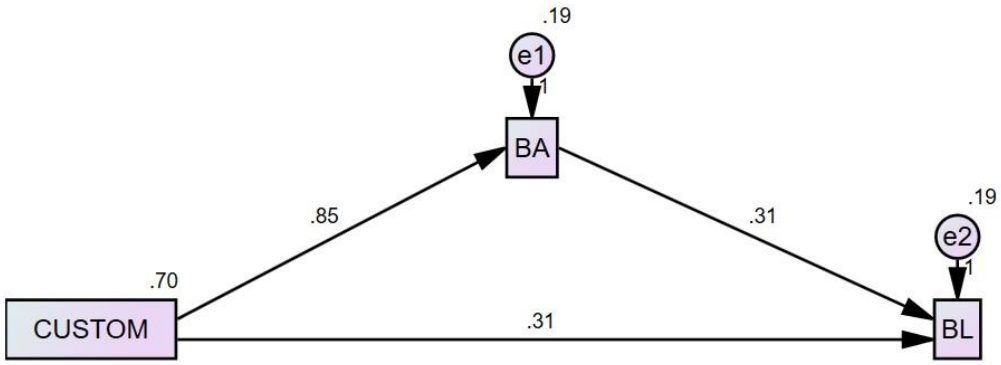


Figure 2: Path diagram through SEM (Impact of electronic word of mouth on customer purchase intention with the mediating role of in-person word of mouth)

Table XIV: Analysis of path diagram through SEM

Variables	β	R^2	Sig.
*CUSTOM => BL	.573	.328	.010
**CUSTOM => BL	.315	.099	.005
***CUSTOM => BA => BL	.259	.067	.011

*Total Effect
**Direct Effect
***Indirect Effect

Table 14 illustrates that customerization has a positively significant total, direct and indirect effect on brand love with the mediating role of brand awareness. The total effect between customerization and brand love is .573 with an R2 value of .328 statistically significant at .010 respectively. The direct effect between customerization and brand love is .315 with an R2 value of .099 statistically significant at .005 respectively. The indirect effect between customerization, brand awareness and brand love are .259 with an R2 value of .067 statistically significant at .011 respectively.

The value of R2 indicates the effectiveness of the model, thus accepting the proposed hypothesis. The analysis proves a partial mediation.

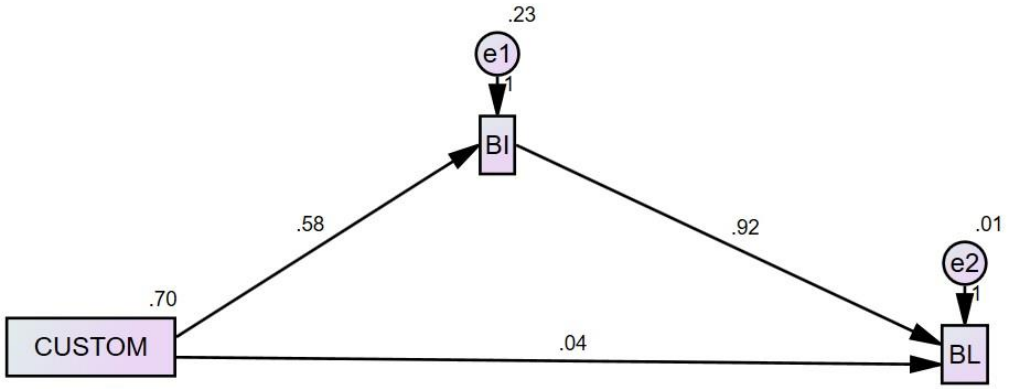


Figure 3: Path diagram through SEM (Impact of online media use on customer purchase intention with the mediating role of in-person word of mouth)

Table XV: Analysis of path diagram through SEM

Variables	β	R^2	Sig.
*CUSTOM => BL	.573	.328	.010
**CUSTOM => BL	.040	.001	.011
***CUSTOM => BI => BL	.534	.285	.011

*Total Effect
**Direct Effect
***Indirect Effect

Table 15 illustrates that customerization has a positively significant total, direct and indirect effect on brand love with the mediating role of brand image. The total effect between customerization and brand love is .573 with an R2 value of .328 statistically significant at .010 respectively. The direct effect between customerization and brand love is .040 with an R2 value of .001 statistically significant at .011 respectively. The indirect effect between customerization, brand image and brand love is .534 with an R2 value of .285 statistically significant at .011 respectively. The value of R2 indicates the effectiveness of the model, thus accepting the proposed hypothesis respectively. Therefore, the analysis proves a partial mediation.

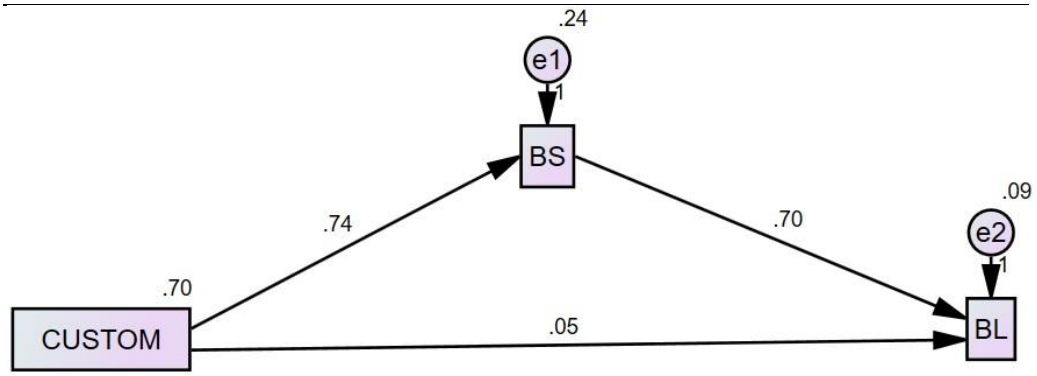


Figure 4: Path diagram through SEM (Impact of self-brand connection on customer purchase intention with the mediating role of in-person word of mouth)

Table XVI: Analysis of path diagram through SEM

Variables	β	R^2	Sig.
*CUSTOM => BL	.573	.328	.010
**CUSTOM => BL	.055	.003	.196
***CUSTOM => BS => BL	.519	.269	.010

*Total Effect
**Direct Effect
***Indirect Effect

Table 16 illustrates that customerization has a positively significant total, direct and indirect effect on brand love with the mediating role of brand satisfaction. The total effect between customerization and brand love is .573 with an R2 value of .328 statistically significant at .010 respectively. The direct effect between customerization and brand love is .055 with an R2 value of .003 statistically insignificant at .196 respectively. The indirect effect between customerization, brand satisfaction and brand love are .519 with an R2 value of .269 statistically significant at .010 respectively. The value of R2 indicates the effectiveness of the model, thus accepting the proposed hypothesis respectively. Thus, the analysis proves a partial mediation.

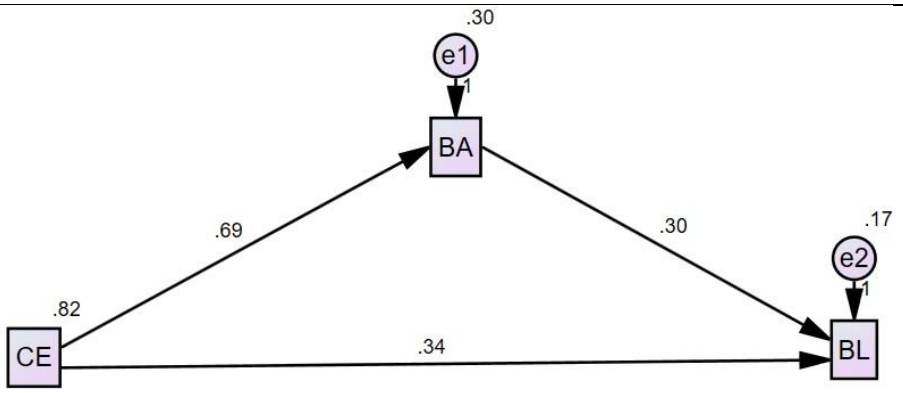


Figure 5: Path diagram through SEM (Impact of self-brand connection on customer purchase intention with the mediating role of in-person word of mouth)

Table XVII: Analysis of path diagram through SEM

Variables	β	R^2	Sig.
*CE => BL	.545	.297	.011
**CE => BL	.341	.116	.008
***CE => BA => BL	.204	.041	.014

*Total Effect
**Direct Effect
***Indirect Effect

Table 17 illustrates that customer engagement has a positively significant total, direct and indirect effect on brand love with the mediating role of brand awareness. The total effect between customer engagement and brand love is .545 with an R2 value of .297 statistically significant at .011 respectively. The direct effect between customer engagement and brand love is .341 with an R2 value of .116 statistically significant at .008 respectively. The indirect effect between customer engagement, brand awareness and brand love is .204 with an R2 value of .041 statistically significant at .014 respectively. The value of R2 indicates the effectiveness of the model, thus accepting the proposed hypothesis respectively. Thus, the analysis proves a partial mediation.

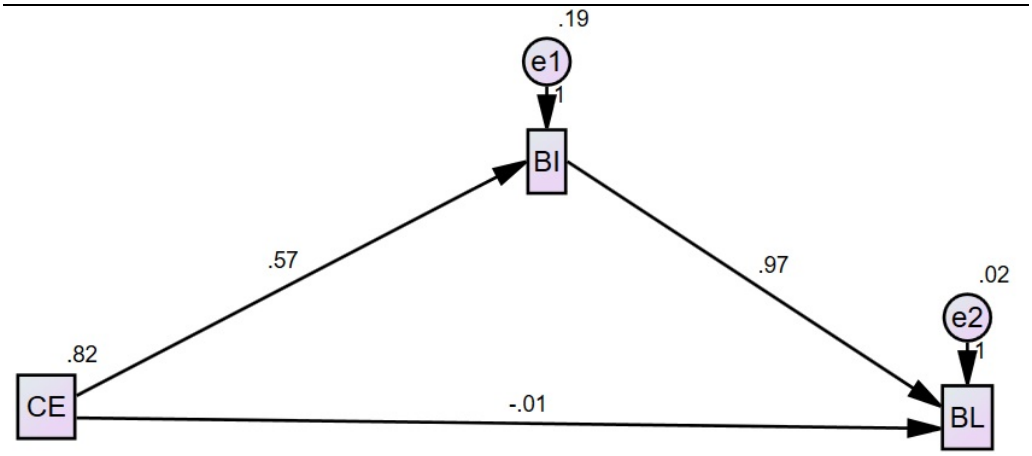


Figure 6: Path diagram through SEM (Impact of self-brand connection on customer purchase intention with the mediating role of in-person word of mouth)

Table XVIII: Analysis of path diagram through SEM

Variables	β	R^2	Sig.
*CE => BL	.545	.297	.011
**CE => BL	-.007	.000	.773
***CE => BI => BL	.552	.304	.010

*Total Effect
**Direct Effect
***Indirect Effect

Table 18 illustrates that customer engagement has a positively significant total, direct and indirect effect on brand love with the mediating role of brand image. The total effect between customer engagement and brand love is .545 with an R2 value of .297 statistically significant at .011 respectively. The direct effect between customer engagement and brand love is -.007 with an R2 value of .000 statistically insignificant at .773 respectively. The indirect effect between customer engagement, brand image and brand love are .552 with an R2 value of .304 statistically significant at .010 respectively. The value of R2 indicates the effectiveness of the model, thus accepting the proposed hypothesis respectively. The analysis proves a partial mediation.

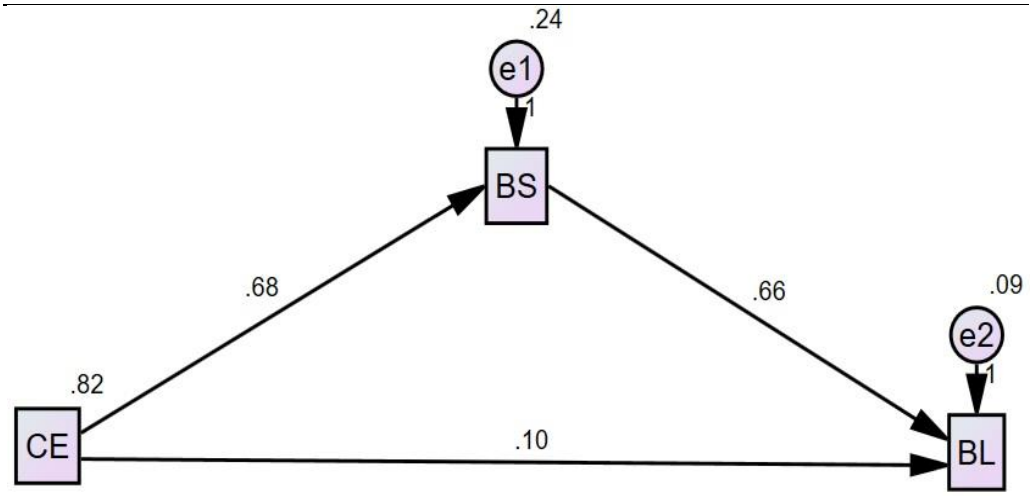


Figure 7: Path diagram through SEM (Impact of self-brand connection on customer purchase intention with the mediating role of in-person word of mouth)

Table XIX: Analysis of path diagram through SEM

Variables	β	R^2	Sig.
*CE => BL	.545	.297	.011
**CE => BL	.100	.010	.018
***CE => BS => BL	.445	.198	.008

*Total Effect
**Direct Effect
***Indirect Effect

Table 19 illustrates that customer engagement has a positively significant total, direct and indirect effect on brand love with the mediating role of brand satisfaction. The total effect between customer engagement and brand love is .545 with an R2 value of .297 statistically significant at .011 respectively. The direct effect between customer engagement and brand love is .100 with an R2 value of .010 statistically insignificant at .018 respectively. The indirect effect between customer engagement, brand satisfaction and brand love is .445 with an R2 value of .198 statistically significant at .008 respectively. The value of R2 indicates the effectiveness of the model, thus accepting the proposed hypothesis respectively. The analysis proves a partial mediation.

6. Discussion

The findings have confirmed that customerization and customer engagement extraordinally influence brand love that is of great attention for marketers. The present study analyzes customerization and customer engagement in the hotel industry in the formation or incompetency of brand love. The analysis illustrates that customerization and customer engagement has appreciable impact on brand love while results indicate that customerization insignificantly effects brand love in the presence of brand satisfaction and customer engagement insignificantly effects brand love in the presence of brand image, respectively. In general, when restaurants are not operational i.e. closed during certain occasions, the love for a brand still stands in place.

Previous studies propose the importance of brand love in the marketing literature, while new phenomenon and theories are under research phase that can lead towards effectively in increasing brand love and new customer relationship building techniques (Grace et al., 2018). Physically, a great demand for the importance of customerization and customer engagement on the generation of brand love (Shin & Back, 2018). The present study to some degree attempts to fill this gap. Additionally, there is a need to develop measurement scales for customerization (Thiruvattal, 2017; Raatikainen, 2018) while the generalized scales for customer engagement, brand love, brand image, brand awareness and brand satisfaction are available in the literature. Current study has utilized all these scales and stands close to the reliabilities with the previous studies (Oliver, 1980; Sternberg, 1997; Yoo & Donthu, 2001; Zhang et al., 2007; Kariuki, 2015; Fernandes & Esteves, 2016).

The present study has identified that customerization and customer engagement has a positively statistically significant effect on brand love. If the product or service is as per the demand and needs of the customer, the customer will feel emotionally and psychologically attached with that specific brand and vice versa. Furthermore, customerization and customer engagement effects brand love insignificantly under the influence of brand image and brand satisfaction insignificantly. Alternatively, customerization and customer engagement have positively significant associations with brand love under the influence of brand awareness respectively.

7. Conclusion and Managerial Implications

The present study demonstrated the role of customerization and customer engagement in the creation of brand love. The study used one indicator as a mediator i.e. brand performance with further three dimensions i.e. brand awareness, brand image and brand satisfaction to determine whether in any manner it impacts the relationship of customerization and customer engagement with brand love. It is evident from the analysis that customerization, customer engagement, brand awareness, brand image and brand satisfaction have a positive and significant effect on brand love, while brand image insignificantly mediates between customer engagement and brand love and brand satisfaction insignificantly mediates between customerization and brand love.

It is estimated from the analysis that customerization effects brand love as customers can get custom-made and modified products or services at a reasonable price which can significantly impact brand love. Customerization has a significant impact on a product and service firm capabilities. Therefore, the focus on value creation for customer has gained a new competitive edge, hence getting more competitive and providing experimental indication to the encouragement of value-creation for customers.

Customerization is a basic part of the emerging new marketing trends, which has tremendous implications for a company's promotional activities, whole business methodology and tasks of the firm. On a very basic level, customerization requires a compelling mix of marketing, operational activities, finance, information and research and development. It additionally requires a reevaluation of the organizations' procedures and orientation, particularly as they affect with research and development, finance and marketing and changes to the organizational design required to help this combination.

A noteworthy opportunity for organizations is the likelihood that they could assume a focal part in carefully centering the powers of free market activity to make a new exchange for customers. To be really fruitful at customerization, an organization must unite the value chains of the demand and supply sides of market. It unites the shifted capacities performed by the distinctive players in the automobile business and conveys an entire shopping/acquiring experiences for the customer. Such online mediators can likewise encourage the positioning of institutionalized branded items by cost, price and quality or other desired characteristics. To the degree that the mediators are customer-driven and enable the customer to customize the products and services, loyalty of the customer may change from the producer to the electronic mediator.

As a consequence, the new idea of customerization depicted in this study, together with considerable trend, for example, the developing impact of the globalization and web, have better effects for the business methodologies of all organizations. Business techniques that overlook the opportunities related with customerization are probably not going to be adjusted well to the demands of the marketplaces of future. The present turmoil in the PC business industry, where Dell is setting new measures and standards for customerization, recommends that organizations that don't embrace this idea are highly at a competitive risk. Expected that numerous organizations will gain from customerization which is a win-win strategy for both the organizations and customers as well.

8. Limitations and Directions for Future Research

The scheme applied in the present study was evaluated through a self-administered questionnaire. Responses that are biased in nature might have been recorded by few respondents (Tax et al., 1998). As a matter of fact, additional evaluations should be carried out in order to overcome unfairness or biasness. The sampling frame applied

to the study involved customers regularly dinning out in the vicinity of Islamabad and Rawalpindi, Pakistan. The results of this study cannot be generalized to other sectors or other products, services and brands. Convenience data collection technique was used rather than probability sampling. The sampling frame indicates dinning customers in Pakistan. Although this limits the authors to simplify their findings, it is highly recommended to carry out probability sampling technique in order to improve the validity of the present research findings.

Nevertheless, the role of brand performance as a mediator between the independent and dependent variables which with online media use proved significant except customerization and brand love under the presence of brand satisfaction and customer engagement and brand love insignificant in the presence of brand image as insignificant in nature. Therefore, certain other predictors of customerization, customer engagement and brand love i.e. customer loyalty, customer delight and familiarity can be used in future studies. As in the case of present study, most of the hypothesis generated were accepted while only two were rejected but may vary in other sectors depending on the nature of the study. It is believed that future studies which address these limitations can easily develop more insight of customerization, customer engagement and brand love and other determinants as very limited studies are available in this context.

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The Relationship of Investor's Demographic Traits and Personality Type with Financial Risk Tolerance in Investment Decisions.

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Abstract

With an assorted sample of customers from various banks of Pakistan, the authors tried to establish relationship of investor's demographic traits and personality type with financial risk tolerance during the choice of investment. Results provide sustenance for the projected hypotheses such as investor's age, income, financial knowledge, family size, occupation and academic qualification has association with financial risk tolerance capability.Investors doing service in an organization tolerate more risk as compare to the investor having their own business. However, Investors marital status and gender has no effect on financial risk tolerance. Investor either married or unmarried showed similar attitude toward financial risk tolerance. Empirical results also provide evidence that investors having type A personality are more financial risk taker as compare to type B personality.

Keywords: *demographic traits; financial risk preferences; investment decisions; personality type.*

JEL-Classification: J11, G32. G11, L84, D14

1. Introduction

Traditional financial paradigm elucidates that markets are efficient, and investors are rational. These studies presume that "investors are rational", when investors receive new information, they rationally deliberate the all available information and select their portfolio between alternatives. (Fama, 1965, 1970). Besides this traditional financial paradigm, several studies revealed investors are not rational, they make decisions under the influence of several personal, social, and economic factors, and irrationality is also shown by investors during financial decision-making process (Barberis & Thaler, 2003). To explain the behavioural aspects during decision making process now a day a new paradigm of finance named behavioural finance is used to understand the

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behavioural aspects of investors while making the financial decision. This approach combined the psychology and economics to explain the reason for each irrational decision of investors during portfolio selection (Belsky &Gilovich, 1999). In behavioural finance literature two schools of thought exist which explained the factors influencing the investors behaviour. One school of thought shown investors perception of risk and their investing behavior is influence by their demographic characteristics (Bajtelsmit & Bernasek, 1996; Barber & Odean, 2001). Other school of thought revealed investor's behaviour is influence by their psychological characteristics (Costa & McCrae, 1992). Psychological factors which influence the rationality of the investors are overconfidence, representativeness, mental accounting, disposition effect and conservatism (Ritter, 2003).

Numerous studies find distinct factors that influenced the financial decision-making process. Study finds out that investors personality and demographic profile are two determinants to know investors behaviour toward wealth management (Verma, 2008; Kannadhassan, 2015). During financial decisions, investors select different risk preferences according to their psychological traits (Barberis & Thaler, 2003). Research conducted on the investors of Rajasthan explored that investors having different demographic traits shown dissimilar attitudes, People select their risk level according to their demographic profile (Jain & Mandot, 2012; Geetha & Vimala ,2014; Khan, 2017). Further some studies revealed that investors personality type also has relation with investors risk tolerance level during financial decisions (Mahmood, 2015). Study concluded that investors with type A personality traits tolerate more risk as compare to the investors having type B personality traits (Thanki, 2015; Kubilay & Ali ,2016). From all these studies, this is extracted that investors make decisions under the influence of numerous factors. Investors make dissimilar choices of benefit when they face uncertain conditions (Talangy, 2004). Investors risk tolerance attitude is not a static phenomenon; investors risk tolerance attitude change with the change of their economic, social, and demographic factors (Grable et al.2006). This study has discussed the two important and vital factors i.e. demographic characteristics and investors personality type in relation with financial risk tolerance with the perspective of Pakistan. The study established that Investors doing service in an organization tolerate more risk as compare to the investor having their own business. However, Investors marital status and gender has no effect on financial risk tolerance. Investor either married or unmarried showed similar attitude toward financial risk tolerance. Empirical results also provide evidence that investors having type A personality are more financial risk taker as compare to type B personality. Further investor's age, income, financial knowledge, family size, occupation and academic qualification has association with financial risk tolerance capability. This study has significance for the financial planners, individual investors, financial advisors, and managers to understand the investor's behaviour regarding financial risk tolerance during investment decisions.

2. Theory and Hypotheses

2.1. Demographic Characteristic

Demographics are the qualitative characteristics of the population, which can be, quantify. Commonly used demographics include age, gender, marital status, income level, Education, investment knowledge and Occupation. Several studies are accompanied to examine the relationship between investor's demographics and their financial risk tolerance attitude. Investment choice of the investors is associated with its demographic profile (Mehta &Aggarwal, 2011; Jain & Mandot, 2012).

2.2. Gender

While discussing investors demographic characteristics gender is consider as the first categorizing and discriminating factor (Bernasek et al. 1996). Emotional variability between male and female caused the different financial risk tolerance attitude (Loewenstein et al.2001). Due to emotional variability, female investors shown broader risk aversion as compare to male investors (Stendardi et al. 2002). In our culture, widespread belief is existing that men are greater risk taker than women (Slovic, 1996; Khan, 2017). Research disclosed that while comparing with male female shown more risk aversion not only in financial decision making but also in other actions like seat belt usage and smoking (Hersch, 1996). Another research conducted in Bhopal (India) disclosed that male investors shown aggression while making the financial decisions and female investors shown conservative behaviour, that's why female investors are avoiding to invest in bond and shares due to high financial risk (Rajdev, 2013).Several studies revealed that no significant association is exist between investors gender and their ability of financial risk tolerance (Schubert et al. 1999: 384-385).Therefore, on the basis of above arguments the following hypothesis has been formulated:

Hypothesis (1): Investor's gender has relationship with their level of financial risk tolerance.

2.3. Age

Investor's financial risk tolerance attitude is also based on their age. This association was originally observed by (Wallach & Kogan, 1961). By using the choice dilemmas their first experimental research shown young individuals, tolerate more risk as compare to older individuals. These findings later open a door for similar research. Several studies shown the result, which supports the results of (Wallach & Kogan, 1961) and concluded that inverse relationship is exist between investors age and their ability of financial risk tolerance (Jiankopolos & Bernasek 2006; Khan, 2017). Old investors do not have enough income to bear the loss and they save their money after the period of retirement (Arora &Kumari, 2015). Several studies also shown contradictory results and shown investors ability of risk tolerance increase with the passage of time (Wang &Hanna, 1997). Young investors tolerate less financial risk as compare to older investors (Grable & Lytton, 1999b). Old investors make healthier financial decisions

because of their financial knowledge and financial experience (Korniotis & Kumar 2011; Frijns, Koellen & Lehnert, 2008). Along these studies, some studies shown no significant association is exist between investors age and their financial risk tolerance ability (Anbar & Eker 2010; Gumede, 2009; Al-Ajmi, 2008). Therefore, on the bases of above arguments the following hypothesis has been formulated:

Hypothesis (2): Investor's age has relationship with their level of financial risk tolerance.

2.4. Education

Third demographic factor which is contemplate as a financial decision persuading factor is the formal academic education (Sung & Hanna, 1996). Generally, it is perceived by many researchers and financial planner that investors having upper level of education tends to invest in higher risky stocks and investor having no or low formal education tends to invest in less risky areas of investment (Thanki, 2015). Study explored that education is a vital factor to overpowering the obstacles to stockholder that is including the loss related with the equities. Further they explored that investors having no formal school education are less likely to hold stock as compare to investor having some formal education (Haliassos & Bertaut, 1995; Masters, 1989). Increase in formal education caused an increase in the ability of financial risk tolerance (Graham et al. 2009: Kimball et al 2007). Increasing education initiate an increase in the aptitude of investors to take higher financial risk (Racciardi .2007; Khan, 2017).

Along these outcomes, numerous studies revealed the opposing results. Study disclosed that tendency to tolerate financial risk decrease with an increase in the level of formal education, because investor having higher education considered the all relevant factors while making the investment choice (Mittal and Vyas, 2007). Along these results, several studies shown no significant association is exist between investors qualification and financial risk tolerance (Strydom et al 2009; Gumede, 2009: 27). Therefore, on the bases of above arguments the following hypothesis has been formulated:

Hypothesis (3): Investor's qualification has relationship with their level of financial risk tolerance.

2.5. Marital Status

Marital status is also used by the investment managers as a factor affecting the risk tolerance aptitude of investors. The intention behind this factor is that sole person has less to lose by accepting superior risk as compare to married individual who have tasks for themselves and for their family. (Lazzarone, 1996, Barber & Odean, 2001: Roszkowski et al. 1993). Study revealed wedded male and female shown dissimilar risk tolerance attitude. Married female shown less risk tolerance attitude while single women and married men shown moderate risk tolerance attitude. Further, this study shown single man tolerates more risk (Hinz et al, 1997). These results are also supported

by the study conducted in Rajasthan (India). Study shown unmarried investors tends to invest in more risky assets while married investors preferred the less risky investments (jain & Mandot 2014). Therefore, on the bases of above arguments the following hypothesis has been formulated:

Hypothesis (4): Investor's marital status has relationship with their levels of financial risk tolerance.

2.6. Income Level

Along others demographic factors investors income level is also considered as a factor affecting their attitude toward financial risk tolerance. Study revealed investor investment pattern is depends upon their income group. These groups are categories into higher, middle, and lower group of incomes. Investors from these different groups shown different investment and saving pattern. Further this study determined that investors having annual income less than one hundred thousand belongs to lower group, while investors having income from one hundred thousand to two hundred and fifty thousand belongs to middle group of incomes, while investors having income above from two hundred and fifty thousand belongs to higher group of incomes (Mittal & Vyas, 2007). While studying the investors level of income and their investment pattern this study shown that investors belongs to lower group of incomes tend to invest in lower risky areas of investment such as post office or bank deposits. While investors belong to middle group of incomes invest in moderate risky areas of investment such as mutual funds etc., while investors belong to higher group of incomes tends to invest in higher risky areas of investment such as equities, Stock, and real estate etc. (Verma,2008; Mittal & Vyas, 2007). Higher level of income caused greater ability of financial risk tolerance. (Parker & Terry 2002; MacCrimmon & Wehrung, 1986). Higher level of income tends the investors to select more volatile portfolio (Barber& Odean, 2001; Bernheim et al. 2001). Along these results, several studies shown no significant association is exist between these variables (Strydomet al, 2009). Therefore, on the bases of above arguments the following hypothesis has been formulated:

Hypothesis (5): Investor's income level has relationship with their level of financial risk *tolerance*.

2.7. Occupation

Occupational status is also considering as a factor affecting the investors ability of financial risk tolerance. People having their own businesses, profession and trade takes more financial risk as compare to people who work for other against fixed salary (MacCrimmon &Wehrung, 1985). Investors with higher ranked occupations tolerate more financial risk as compare to investors having low ranked professions (Roszkowski et al. 1993; Barnewall, 1988; Sireesha & Laxmi, 2013). Another study also divulged that investors occupation has a relationship with financial risk level occupied by her /

him. (Jain, &Mandot, 2012). Another study revealed both salaried individual and self employed shown high risk aversion and private salaried individual shown high-risk appetite (Chattopadhyay & Dasgupta, 2015). Therefore, on the bases of above arguments the following hypothesis has been formulated:

Hypothesis (6): Investor's occupation has relationship with their levels of financial risk tolerance.

2.8. Family Size

Family size of investors is also deliberated as a factor influences on their financial risk taking behaviour. Generally, it is perceived that investors having fewer dependents are tend to take more risk as compare to the investors having more dependents. Study shown households having young children avoid risky assets. On the other side, investors having kids of 6 to 11 years and adolescent tends to take more risky assets (Xiao, 1996). Increase in family size and number of dependents caused a decreased in the ability of risk tolerance (Lease, Lewellen& Schlarbaum, 1977). Another study also finds that large number of dependents lesser risk tolerance aptitude and upsurge risk aversion (Chaulk et al. 2003). Another Study also support these results and concluded that as the number of dependents of a respondent upsurge it lessens their aptitude of risk tolerance (Sulaimon, 2012). Therefore, on the bases of above arguments the following hypothesis has been formulated:

Hypothesis (7): Investor's family size has relationship with their levels of financial risk tolerance.

2.9. Financial Knowledge

Financial knowledge is also important for the investors to select the area of investment according to their ability of risk tolerance. Investor having lower financial knowledge mostly depends on instruction of friends and family, while investors having high investment knowledge gain high returns (Tamimi & Kalli, 2009; Shaikh& Kalkundarikar, 2011). Similar study divulged that investment knowledge and investment ability tends the investors to select the hotter stock (Tourani-Rad & Kirkby, 2005). Another study uncovered that investment knowledge upsurge the risk tolerance ability of investors. Educated investors desire more risk for higher return as compare to uneducated. (Grable, 2000; Hifza et al. 2011). Study revealed that an increase of 0.104 points is occur in investor level of risk tolerance with an increase of one point in knowledge (Jain, &Mandot, 2012). Therefore, on the bases of above arguments the following hypothesis has been formulated:

Hypothesis (8): Investor's financial knowledge has relationship with their level of financial risk tolerance.

2.10. Personality Type

Personality can be defined as "The way an individual interacts, reacts and behaves with others and is often exhibited through measurable traits" (Young et al. 2012; Kourtidis et al. 2011). Because of the development of personal memories, attitudes, values, skills, habits and social relationship, individuals shown different personality traits (Mischel & Shoda, 2004). Among other behavioural influencing factors, investors personality is also used as behavioural influencing factor. Studies shown some aspects of investors decisions are explained by their personality (Filbeck, Hatfield, & Horvath, 2005). Investors having type A personality tends to tolerate more financial risk as comparing to individual having type B personality. Individual having type A personality are more risk seeker because these types of individual have higher level of income, adequate financial and academic knowledge and have higher occupational status (Carducci & Wong, 1998). Study concluded that investors with Type A personality tolerate more risk as comparing to the investors having type B personality trait (Thanki, H 2015). Therefore, on the bases of above arguments the following hypothesis has been formulated:

Hypothesis (9): Investor's personality type has relationship with their level of financial risk tolerance.

3. Method

3.1. Sample and Data Collection Procedures

Present study has interacted the individuals involved in investment with banks in saving accounts, mutual funds, and bank assurance. According to (Taylor et al. 2006) questionnaires are an influential and sensible method to capture the attitude and opinions of the large number of target people. Present quantitative study used structured questionnaire to collect data. Present study used investors personality and their demographic traits as independent variable while financial "Risk" as a dependent variable. Using convenience sampling method present study interacted the 250 bank customers located in Rawalpindi and Islamabad. Out of which we received the responses from 230. Among these questionnaires 10 were finded incomplete, so finally study used 220 responses as a sample.

4. Measures

4.1. Measurement of Financial Risk Tolerance Level

To quantify the financial risk tolerance level of an investors study used the "risk assessment questionnaire" developed by (Grable & Lytton, 1999). This assessment questionnaire encompasses 13 multiple-choice questions. Values between 1 to 4 are assigned to each question according to the risk level involved in each. These questions cumulatively showed the scores between thirteen to forty-seven. Scores between 0 to 18 shown the low level of risk tolerance. Scores between 19 to 22 shown the below average level of risk tolerance. Scores between 23 to 28 showed the moderate level of

risk tolerance. Scores between 29 to 32 presented the above average level of risk tolerance and scores between 33 to 47 shown the high level of risk tolerance. These categories also used by (Khakhdia, 2014) for similar study in Ahmadabad city India.

4.2. Measurement of Demographic Factors

Investor's demographic characteristics included gender, age, income level, marital status, financial knowledge, formal school education, occupation, and family size. Investor gender is a "categorical variable which can be dummy coded i.e. 1=male, 2=female to use it as an interval level variable" (Grable, 1997). Age is a continuous variable, which was categories into different groups, each group shown the age of investors. Further study used the income slabs, through which investors could select their income level on an annual basis. Marital status was also used as an independent variable. Wherein marital status was subcategories as unmarried, married, divorced, and widow. Besides these, investors were also asked to tell us about their financial knowledge, Option were given to investors to select their financial knowledge either they have little knowledge, moderate knowledge, good knowledge, or very good knowledge. Formal school education of investors was also used as independent variable, and investors were asked to select their education level either they are non-graduate, graduate or have post graduate qualification or have any professional education. Investor's occupational status was also used as independent variable. Investors were categories into different occupation status including service, professional, student and other. Last demographic factor, which was used in this study, is the family size of the investors. Investors having different family size are categories into different groups.

4.3. Measurement of Personality Types

To find out the personality type of the investors this study used the questionnaire developed by (Howard &Glazer, 1985). Questionnaire contains 20 questions and each question contains 1 to 7 scores. These questions cumulatively shown the scores between 20 to 140.Scores between 20 to 80 shown that investors have type B personality type while scores between 81 to 140 shown investors have type A personality type. Type A personality represent those investors having more ability of financial risk tolerance. While investors with type B personality are risk averse (Wong & Carducci, 1991) Most of previous studies also used this category to rank the investors personality type (Carducci & Wong ,1998; Thoresen & Low ,1990).

5. Data Analysis

Present study used the nominal and ordinal variable; therefore, chi square test was used to find the relationship of investors demographic factors and personality types with their level of financial risk tolerance. These statistical methods are also used by (Jain & Mandot 2012; Khakhdia ,2014). Statistical package SPSS is used to run the test and analyze the data.

5.1. Results

5.1.1. Reliability test for questionnaire measuring the financial risk level

The first step in the data analysis was the reliability checking of instrument. Studies shown that risk assessment questionnaire must produce the reliability coefficient ranging from 0.5 to 0.80 to show the consistency (Pedhazur, 1982). Present instrument shown the Cronbach's coefficient alpha 0 .84 which shown the reliability of the instrument.

Table 1: Reliability Statistics of Questionnaire Measuring the Financial Risk Level

Cronbach's Alpha	No. of Items
0.844	13

Table 2: Relationship of Investors Gender and their Financial Risk Tolerance Levels

		Risk					Total
		Low	Below average	Average	Above average	High	
Gender	Male	24	14	57	31	21	147
	Female	20	8	26	12	7	73
Total		44	22	83	43	28	220

Table 2 revealed that investors with different gender shown the similar risk tolerance level while making the financial decisions.

Table 3: Chi-square Test for Investors Gender and Financial Risk Tolerance

	Value	DF	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.604[a]	4	0.330

Table 3 revealed the Pearson chi-square test results for investors gender and their financial risk tolerance and indicated calculated value that is 4. 604 with significance value of .330.Where tabulated value of chi-square using 5% level of significance at 4 degree of freedom is 9. 488.As our calculated value is less than the tabulated value, so we accept our null hypothesis and finds, investors gender has no significance relationship with their levels of financial risk tolerance. Investors either they are male or female, shown the similar risk tolerance level.

Table 4 revealed that investors with diverse income level shown the dissimilar trend while making the financial decision-making process. Investors with low level of

income tolerate the low risk, while investors with higher level of income tolerate high risk.

Table 4: Relationship of Investors Income Level and their Financial Risk Tolerance Levels

		Risk					Total
		Low	Below Average	Average	Above Average	High	
Income level	Below Rs. 200000	25	6	20	12	1	64
	Rs. 200000 – 400000	11	9	29	11	3	63
	Rs. 400000 – 600000	7	4	20	10	7	48
	Rs. 600000 – 800000	1	2	7	6	8	24
	Rs. 800000 or Above	0	1	7	4	9	21
Total		44	22	83	43	28	220

Table 5: Chi-square test for Investors Income Level and Financial Risk Tolerance

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	57.431[a]	16	0.000

Table 5 revealed the Pearson chi-square test results for investors income level and their financial risk tolerance and indicated calculated value that is 57.431 with significance value of 0.000 (less than 0.05). Where tabulated value of chi-square using 5% "level of significance "at 16 degree of freedom is 26.296. As our calculated value is higher than the tabulated value, so we reject our null hypothesis while accepting alternative hypothesis and concluded that investors income level has relationship with their levels of financial risk tolerance. Investors having different income levels shown different financial risk tolerance level during financial decision-making process.

Table 6: Relationship of Investors Age and their Financial Risk Tolerance Levels

		Risk					Total
		low	Below average	Average	Above average	High	
Age	Below 30 years	27	13	40	20	4	104
	30-40 years	14	6	32	17	13	82
	40-50 years	3	2	7	4	7	23
	50-60 years	0	1	3	2	4	10
	60 and above 60	0	0	1	0	0	1
Total		44	22	83	43	28	220

Table 6 revealed investors with different age group, shown the dissimilar behaviour toward financial risk. Investors having age less than 30 years mostly shown low risk

tolerance, while investors from age group of 30 to 40 years shown average level of risk tolerance, and investors having age group of 50 to 60 mostly shown higher level of risk tolerance.

Table 7: Chi-square test for Investors Age and Financial Risk Tolerance Levels

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.925[a]	16	.042

Table 07 revealed the Pearson chi-square test results for investors age and their financial risk tolerance and indicated calculated value that is 26.925 with significance value of .042(less than 0.05). Where value of chi-square using "5% level of significance" at 16 degree of freedom in table is 26.296. As our calculated value is higher than the tabulated value, so we reject our null hypothesis while accepting alternative hypothesis and concluded that investors age has relationship with their level of financial risk tolerance. Investors having different age groups, shown different risk tolerance levels during financial decision-making process.

Table 8: The Relationship of Investors Marital Status and Financial Risk Tolerance Levels

		Risk					Total
		low	Below average	Average	Above average	High	
Marital status	Single	25	10	33	18	5	91
	Married	19	12	50	24	23	128
	Divorced	0	0	0	1	0	1
Total		44	22	83	43	28	220

Table 08 revealed that investors either they are married or unmarried shown the similar trend toward financial risk while making the financial decision-making process.

Table 9: Chi-square Test for Investors Marital Status and Risk Tolerance

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.157[a]	8	0.056

Table 09 revealed the Pearson chi-square test results for investors age and their financial risk tolerance levels and indicated calculated value that is 15.157 with significance value of 0.056. Where value of chi-square using "5% level of significance" at 8 degree of freedom in table is 15.507. As our calculated value is less than the tabulated value, so we accept our null hypothesis and concluded that investors marital status has no relationship with their levels of financial risk tolerance. Investors either they are married or unmarried shown the similar levels of risk tolerance.

Table 10: The Relationship of Financial Knowledge and Financial Risk Tolerance Levels

		Risk					Total
		low	below average	Average	Above average	High	
Financial knowledge	Little knowledge	21	6	6	3	0	36
	Moderate knowledge	14	7	32	12	4	69
	Good knowledge	6	5	24	11	6	52
	Very good knowledge	3	4	21	17	18	63
Total		44	22	83	43	28	220

Table 10 revealed that investors with different financial knowledge shown the dissimilar trend while making the financial decision-making process. Respondents with fewer financial knowledge tolerate low risk in making financial decisions while investors with higher level of financial knowledge tolerate high level of risk.

Table 11: Chi-Square Test for Investors Financial Knowledge and Risk Tolerance

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	68.981[a]	12	0.000

Table 11 revealed the Pearson chi-square test results for investors financial knowledge and their financial risk tolerance and indicated calculated value that is 68.981 with significance value of 0.000 (less than 0.05). Where tabulated value of chi-square using 5% level of significance at 12 degree of freedom is 21.026. As our calculated value is higher than the tabulated value, so we reject our null hypothesis while accepting alternative hypothesis and concluded that investors financial knowledge has relationship with their levels of financial risk tolerance. Investors having different levels of financial knowledge shown different levels of risk tolerance during financial decision-making process.

Table 12: Relationship of Investors Family Size and Financial Risk Tolerance Levels

		Risk					Total
		low	below average	Average	Above average	High	
Family size	2 members	5	4	1	2	1	13
	3-5 members	30	13	60	25	14	142
	6-8 members	8	5	20	16	12	61
	9 or more members	1	0	2	0	1	4

Table 12 revealed that investors with different family size shown the dissimilar trend while making the financial decision-making process. Respondents with fewer family members tolerate low risk in making financial decisions while investors with 3 to 5 family members and more risk taker. Investors having more than 5 family members are average risk takers

Table 13: Chi-Square Test for Investors Family Size and Risk Tolerance

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.069a	12	.049

Table 13 revealed the Pearson chi-square test results for investors family size and their levels of financial risk tolerance and indicated calculated value that is 21.069 with significance value of .049. Where tabulated value of chi-square using "5% level of significance" at 12 degree of freedom is 21.026. As our calculated value is higher than the tabulated value, so we reject our null hypothesis while accepting alternative hypothesis and concluded that investors family size has relationship with their levels of financial risk tolerance. Investors having different family size shown different levels of financial risk tolerance during financial decision-making process.

Table 14: Relationship of Investors Qualification and their Financial Risk Tolerance Levels

		Risk					Total
		low	Below average	Average	Above average	High	
Qualification	Below graduate	19	8	13	3	3	46
	Graduate	22	10	53	29	5	119
	Post graduate	3	4	17	11	20	55
Total		44	22	83	43	28	220

Table 14 revealed that investors with different education level shown the dissimilar trend while making the financial decision-making process. Respondents with less qualification tolerate low risk in making financial decisions, while investors with high qualification tolerate high level of risk.

Table 15: Chi-Square Test for Investors Qualification and Risk Tolerance

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	60.598[a]	8	.000

Table 15 revealed the Pearson chi-square test results for investors academic qualification and their levels of financial risk tolerance and indicated calculated value that is 60.598 with significance value of 0.000 (less than 0.05). Where value of chi-square using 5% level of significance" at 8 degree of freedom in table is 15.507. As our calculated value is higher than the tabulated value, so we reject our null hypothesis and concluded that investor qualification level has relationship with their levels of financial risk tolerance. Investors having different levels of academic qualifications, shown different levels of risk tolerance.

Table 16: Relationship of Investors Occupation and their Risk Tolerance Levels

		Risk					Total
		Low	Below Average	Average	Above Average	High	
Occupation	Service	19	10	50	24	19	122
	Professional	11	3	6	7	0	27
	Student	8	5	12	10	2	37
	Business	3	3	11	2	7	26
	Others	3	1	4	0	0	8
Total		44	22	83	43	28	220

Table 16 revealed that investors with different occupations shown the dissimilar trend while making the financial decision-making process. Respondents doing service in any organization tolerate higher risk in making financial decisions, while investors, which are doing business, tolerate low level of risk.

Table 17: Chi-Square test for Investors Occupation and Risk Tolerance

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.970[a]	16	0.024

Table 17 revealed the Pearson chi-square test results for investors occupation and their levels of financial risk tolerance and indicated calculated value that is 28.970 with significance value of 0.024 (less than 0.05). Where value of chi-square using "5% level of significance" at 16 degree of freedom is 26.296. As our calculated value is higher than the tabulated value, so we reject our null hypothesis while accepting alternative hypothesis and concluded that investors occupation has relationship with their levels of financial risk tolerance.

Table 18: Relationship of Investors Personality Type and Their Risk Levels

		Risk					Total
		Low	Below average	Average	Above average	High	
Personality type	Type A	7	10	66	36	28	147
	Type B	37	12	17	7	0	73
Total		44	22	83	43	28	220

Table 18 shown the investors personality type and their level of risk tolerance levels. From table 18 this is concluded respondents having type "A" personality tolerate high risk in making financial decisions, while investors with type "B" tolerate low level of risk.

Table 19: Chi-Square Test for Investors Personality Type and Risk Tolerance Levels

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	81.446[a]	4	0.000

Table 19 revealed the Pearson chi-square test results for investors personality type and their financial risk tolerance and indicated calculated value that is 81.446 with significance value of 0.000(less than 0.05). Where-tabulated value of chi-square using 5% level of significance at 4 degree of freedom is 9.488. As our calculated value is higher than the tabulated value, so we reject our null hypothesis and concluded that investors personality type has relationship with their levels of financial risk tolerance.

5.2. Discussion

5.2.1. Gender

Present study showed how people of different demographic traits shown different attitude toward financial risk tolerance. Present study has rejected the slovic (1966) general belief about the society that male shown higher financial risk tolerance and women are conservative in making financial decisions. Present study shown Investors either they were male, or female shown similar risk tolerance levels during investment

decisions. These outcomes confirm the results of (Blum, 1976; Schubert et al. 1999; Jain& Mandot, 2012).

5.2.2. Income Level

Present study supports the former studies revealing investors having higher level of income tend to tolerate higher level of risk as judge against to the investors having less income (MacCrimmon & Wehrung, 1986). These results also supported by (Schooley &Worden, 1996; Parker & Terry 2002; Jain & Mandot, 2012).

5.2.3. Age

Generally, it is perceived that young investors tolerate high risk during financial decision-making process. Study shown Increase in age lower the investors ability of financial risk tolerance (Grable, 1997). Present study also finds significant relationship between investors age and financial risk tolerance. These outcomes also support the results of (Wang &Hanna, 1997; Grable & Lytton, 1999b).

5.2.4. Marital Status

Previous studies shown individual investor has less to loss by accepting the superior risk as compare to married individual who have tasks for themselves and for their family. (Barber & Odean, 2001). Study revealed married female shown less risk tolerance attitude while single women and married men shown moderate risk tolerance attitude. Further, this study shown single man tolerates more risk (Hinz et al. 1997) Present study disagreed with these results and concluded that investors marital status has no relationship with their levels of financial risk tolerance.

5.2.5. Financial Knowledge

Previous studies revealed investors having high investment knowledge gain high returns (Shaikh & Kalkundarikar, 2011). Another study disclosed that investment knowledge and investment ability tend the investors to select the hotter stock (Tourani-Rad & Kirkby, 2005; Jain, & Mandot, 2012). Present study also supports these results and concluded that investors financial knowledge has relationship with their level of financial risk tolerance. Investors having good financial knowledge, tolerate more financial risk as compare to investors having less financial knowledge.

5.2.6. Occupation

Generally, it is perceived that, people having their own businesses, profession and trade takes more financial risk as compare to people who work for other against fixed salary (MacCrimmon Wehrung, 1985). Another study disclosed that investors with higher ranked occupations tolerate more financial risk as compare to investors having low ranked professions (Roszkowski et al. 1993; Barnewall, 1988). Another study shown that private salaried individual shown high-risk craving as compare to individual having their own business (Chattopadhyay &Dasgupta, 2015). Present study shown investors occupational status has relationship with their level of financial risk tolerance. Study

shown investors doing service in an organization tolerate more risk as compare to the investors having their own business and profession.

5.2.7. Formal School Education

Generally, it is perceived that investors having no formal school education are less likely to hold stock as compare to investors having some formal education (Haliassos & Bertaut, 1995). Investors have higher level of formal education tending to invest their funds in higher risky investments (Masters, 1989; Racciardi, 2007). Present study also shown that investors formal education has relationship with their level of financial risk tolerance. Investors having higher level of education tolerate high risk, while investors having less financial knowledge are enduring less financial risk.

5.2.8. Family Size

Generally, it is perceived that investors having fewer dependents are tend to take more risk as compare to the investors having more dependents. Study finds that higher number of dependents lessen risk tolerance aptitude and upsurge risk aversion (Chaulk et al. 2003). Present study also finds the significance relationship between investors family size and their levels of risk tolerance. Study shown investors having three to five family members shown the average risk tolerance behaviour, investors having 6 to 8 family members also prefer the average risk level. While investors having family size above 8 are less risk taker.

5.2.9. Personality Type

Study concluded that investors with Type A personality tolerate more risk as compare to the investors having type B personality trait (Glazer, 1985; Thanki, 2015). Present study also exposed the relationship between investors personality type with their levels of financial risk tolerance. Results shown investors having type A personality are more financial risk taker as compare to the investors having type B personality.

6. Conclusion

Empirical results provide enough evidence to conclude that investor's demographic characteristics have a significant relationship with financial risk tolerance. Investor's income level, age, financial knowledge, academic qualification, family size, occupation and personality have significant relationship with financial risk tolerance. In addition, gender, marital status has no relationship with financial risk tolerance because male and female investors exhibited same behaviour toward financial risk tolerance

Future research can compare different factors with investor's level of financial risk tolerance such as investor's psychology, market conditions, culture, and family background. Investment managers and financial planners should consider the importance of each factor while ranking the investments. Further the investigation into investment behavior due to the levels of financial literacy among managers would be an addition to the body of knowledge.

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