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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.

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- Entrepreneurship
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- 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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**Prof. Nisar Ahmed Siddiqui**

*Sitara-e-Imtiaz*

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## 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 it to the largest stakeholders. The journal charges no any fees and also provides complimentary copy (in hard form) to each author also the supplement copies of the journal 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 The journal has been archived by world's renowned scientific repositories.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 aim 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 receive your valuable feedback.

**Dr. Khalid Ahmed**

*Editor-in-Chief*

**SIJMB**

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## The Model of Customer Experience and Purchase Intention in Online Environment

Muhammad Zahid Maitlo<sup>1\*</sup>, Neelam Jugwani<sup>2</sup>, Rehman Gul Gilal<sup>1</sup>

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### Abstract

The online purchase intention is very critical and fascinating in today's e-environment. It has direct involvement in customer decision making in terms of purchase. Thus, corporations use various marketing tools to seize customer attention for product purchase decision. This study provides the model of customer experience and purchase intention in e-environment. A total of 326 internet users were requested to provide the data through distributed questionnaire using non-probability e-convenience sampling technique. Further, Analysis of Moment Structure was employed and Structural Equation Model was used to measure the model of customer experience and online purchase intention with customer experience sub-dimension i.e. online hedonic elements, online aesthetics and online functional elements. The result of the study clearly indicates that customer with tremendous experience tends to purchase frequently in an online environment. In other words, customer online experience is directly proportional to purchase intention. Hence, increase in online customer experience will increase purchase intention.

**Keywords:** Customer Experience, Purchase Intention, Structural Equation Model.

### 1. Background

In this globalized era, corporations are seeking modern and advanced tools of how to appeal, attract and capture customer attention as long as possible. Most importantly, to find what makes the customer more happy and comfortable in selecting a particular brand as well as converting them from customers to good stakeholders. Indeed, they are signifying various methods to answer this question in customer behavioral context. In this case, experience has been considered as one of the most powerful and imperative areas of modern marketing in customer psychological perspective. Hence, customer experience has achieved greatest interest of marketers as sources of strategic competitive advantage in today's environment. Strategically, customer experience is a facet to create brand offerings as well as channel trustworthiness for firms and is difficult to imitate by competitors as it has sturdily highest potentiality, consistency, promise fulfillment and brand communication in the experiential economy (Berry, <https://doi.org/10.30537/sijmb.v4i1.101>).

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Carbone, and Haeckel (2002); Kim (2002)). Although marketing activities persuade potential customers in terms of their interaction and interest level, still customer experience has a unique proposition that depends on and varies as per time, place and given environment. Similarly, online environment has its own composition and involvement in terms of customer experience. For example, prior research has given insights of customer experience in regards to online shopping preference on the basis of experience gained by online visitors (Gentile, Spiller, & Noci, 2007). Garg, Rahman, and Qureshi (2014), found that customers prefer only that website for shopping which provides them better experiences. Shaw and Ivens (2002), found that old customers are more profitable as compared to new ones and have a high tendency of purchasing products if they have good online experience. Therefore, customer experience and customer purchase intention are crucial to investigate in e-environment. Hypothetically, this research empirically explores customer online purchase intentions on the basis of functional, aesthetic and hedonic elements to generate customer experience.

### **1.1. Research Momentum**

For the last years, customer experience has become critical and important for almost all business and non-business organizations around the globe. This has caused greatest interest of scholars and researchers to explore and investigate the dimensions of customer experience in various demo-geographical areas of business in numerous industries. Although Customer behavior is dynamic according to their psychological traits as well as situational or environmental influences and physical interactions (Schiffman & Kanuk, 2000). Similarly, customer interaction in online environment lacks physical elements i.e. product and human tangible presence as compared to other places where there is high involvement of these interactions. It indicates that customer experience with physical (i.e. product and human) interaction and online interaction is different. Thus, the researcher has proposed the model of customer experience and purchase intention in an online environment. In this model, customer experience is divided into three sub-dimensions i.e. online hedonic elements, online aesthetic and online functional elements to measure how these dimensions create customer purchase intention in such e-environment.

## **2. Literature review**

### **2.1. Customer Experience**

Sundbo and Hagedorn-Rasmussen (2008), define customer experience as “a psychological journey that leaves the customer in reminiscences by executing one thing extraordinary, somewhat erudite, and something incredible or having pleasurable is customer experience”. In addition, it is also personal and internal rejoinder for a customer that needs a straight or roundabout interaction with the organization (Meyer & Schwager, 2007). Customer behavior has building block which is an experience that concerns by means of fantasies, exceptional customer observation and sentiments

(Holbrook & Hirschman, 1982). By other means, the experience is par excellent or an event happens and it leaves a thought in the minds of others.

In addition, customers are ever changing their preferences themselves towards marketer's activeness tactics that possess strong customer attention appeals (Yoon, 2013). In a prior era of marketing journalism, organization's main focus was on fast moving consumer goods in terms of providing best products with different attributes (Klaus, Gorgoglione, Buonamassa, Panniello, & Nguyen, 2013) but this focus has less significance as compared to customer experience in recent times (Maklan & Klaus, 2011). Additionally, the center of attention in customer perspective is the experience that they acquire when they utilize products and services (Biswas, 2009). Similarly, in terms of maximizing profitability and brand awareness among customers to enhance loyalty among customers, organizations have to pass the hurdle by providing magnificent experience to customers (Garg, Rahman, Qureshi, & Kumar, 2012; Ismail, 2011). According to a survey by Gurley (2000), it was predicted that customers are filling their online purchasing form but without any purchasing activity, they quit the sequence.

## **2.2. Online Functional Elements (OFE)**

It can be defined as the core function of website i.e. usability and interconnectivity elements that are highly related to customer experience in an online environment (Constantinides, 2004; Mathwick & Rigdon, 2004; Sheu, Su, & Chu, 2009; Takatalo, Nyman, & Laaksonen, 2008). In other words, it is important to keep preferred material so that customer can easily complete their task on the web in shorter time frame. Similarly, interconnectivity can highly enrich customer experience in terms of providing customized benefits and supporting online roamers for sharing experiences and information as required and necessary for creating impact (Constantinides, 2004). In other means, better usability and interconnectivity of website can provide better customer experience in e-environment. Further, these elements are important in building good unique customer experience towards behavioral intentions (Constantinides, 2004).

## **2.3. Online Aesthetics (OA)**

Systematically, the basic endeavor of internet site of aesthetic characteristics of a firm is to leave a positive consciousness in minds of ultimate clients and motivating them towards offers who are surfing websites in limited time duration (Constantinides, 2004; Constantinides, Lorenzo-Romero, & Gómez, 2010; Sheu et al., 2009; Sun, 2002). Further, Web users can be attracted by visual display graphics used on websites i.e. font styles, its size and shapes, color combination manuscript clearness, audios (Madu & Madu, 2002). In a prior study of Mathwick, Malhotra, and Rigdon (2001), the aesthetic web characteristics found significantly related to web users in deciding behavioral intentions (Fogg et al., 2002) these characteristics also work like

conversationalists or communicators for attracting online consumers in optimistic intentions intended to encourage interaction by means of web services.

#### **2.4. Online Hedonic Elements (OHE)**

These are the certain customer characteristics that can immerse in online surroundings and get away from their reality, wherever they experience an enchanted environment in contrast with real life environment (Mathwick & Rigdon, 2004; Sheu et al., 2009; Takatalo et al., 2008). In terms of hedonic significance under discussion, the large extent of investigation has been carried out (Babin & Attaway, 2000; Darden & Reynolds, 1971) also has commenced designating as the essential constituent of online purchasing (Burke, 1999; Hoffman & Novak, 1996). In addition, Consumer does not shop for just to achieving the mission, but they rapidly do shopping for collecting admiration on the experience they have collected (Babin, Darden, & Griffin, 1994). Similar to real life purchasing, customer preferred online purchasing for the purpose of amusement and what to do something really different that is why they look forward to structured experiences which soak up customers (Kim, 2002; Mathwick et al., 2001).

#### **2.5. Online Purchase Intention (OPI)**

Shao et al., (2004), define purchase intention as a behavioral aspect of consumer towards utilizing the company services is known as consumer purchase intention. In prior research, it can be planned behavior of the consumer to buy products and services (Dodds, Monroe, & Grewal, 1991). Customer purchasing behavior is predicted by purchase intention which is a crucial component and enriched in terms of customer context (Fishbein & Ajzen, 1977). Psychological conditions of decision making are known as customer purchase intentions and rely upon experience that happens in their earlier period with perceived surveillance. Similarly, purchase intentions of customers are their actions which considerably contribute within behavior creation with the help thoughts, certainly, evaluation for external environmental etc. to build customers trail expertise for purchase decision (Dodds et al., 1991; Schiffman & Kanuk, 2000; Yang & He, 2011; Zeithaml, 1988).

#### **2.6. Prior studies on Customer Experience**

##### **References**

##### **Key points**

Bilgihan (2016)

Online marketing is expected to be different as they process website information five times faster than older generations and are the most emotional and least loyal customers as compared to all other generations in providing customer experiences

Bilgihan, Kandampully, and Zhang (2016)	Online shopping environment is dynamic because consumers connections with e-vendors, researchers and professionals that are important for understanding and that create a compelling online user experience
Stein and Ramaseshan (2016)	Customer experience elements like touch points, which include; atmospheric, technological, communicative, process, employee–customer interaction, customer–customer interaction and product interaction elements are most important
Amoah et al. (2016)	Customer experience strategy that can enhance customer satisfaction, positive behavioral intentions, growth, and sustainability
Rukhsana Gul Gilal (2016)	The self-concept emerged as a stronger driver for brand experience and consumer brand relationship, then for brand preference and customer satisfaction
Sun (2002)	Customer experience helps marketers in establishing powerful Brand awareness, brand association, perceived quality, and brand Loyalty
Hao Suan Samuel, Balaji, and Kok Wei (2015)	Customer experience is based on a tangible and sensorial experience, staff aspect, aesthetic perception, and location
Martin, Mortimer, and Andrews (2015)	Antecedents for cognitive and affective experiential states and their influence on outcomes such as online shopping perceived risk, trust satisfaction, and repurchase intentions
Homburg, Jozić, and Kuehnl (2015)	Online retailers can focus on cognitive aspects (e.g., website Navigation, functionality, and connectedness) and affective aspects (e.g., website aesthetics, 3-D product presentation, and customization) of the online shopping website in providing holistic online experiences
Harwood and Garry (2015)	Customer experience management as one of the most promising marketing approaches in consumer industries

Sekaran and Bougie (2016)	Higher levels of customer role readiness, technologization, and connectivity positively affect different co-creation experience dimensions
Chen and Lin (2015)	Customer experience and perceived value on continuance intention are both respectively significant in marketing approach
Cho (2015)	The interactive effects of a website experience and order fulfilment are significant. In the interactive mechanism, order fulfilment experience is proven to serve as proximal cause of repurchase intention

## 2.7. Conceptual Framework

### 2.7.1. Customer Experience and Online Purchase Intention (CE→OPI)

In today's competitive environment, where survival in the international marketplace is complicated for international or national firms because there are a lot of identical products as well as services available with minimum differences. Beneath such kind of circumstances, customers are experiencing a perfect purchasing during their shopping tour and also fulfill with effective product offerings. Customer experience theory was thoroughly visualized in the mid-80s in the area of consumer behavior (Holbrook & Hirschman, 1982). This theory of customer experiences seems to actualize a universal understanding among professionals, service scientists and experts in discussion the affairs of customer experiences. Although, in these beginning studies where the most important stream of investigation in the nineties (Pine & Gilmore, 1999) book on the Experience Economy and in the experiential book of Marketing by Schmitt, another customer experience's concept was revealed. Additionally increased better customer experiences will generate customers purchase intentions (Bellman, Lohse, & Johnson, 1999). A customer experience is a new but powerful weapon as it strengthens customer purchase intention (Igbaria, Guimaraes, & Davis, 1995). Cowles, Kiecker, and Little (2002), concludes that the prime focus of web owners should be upon consumer desire values to inspire them beyond their means. Thus, they should be engaged in offering to give greater services as well as values for good experiences (Woodruff, 1997). Similarly, prior scholars and researchers have investigated the effective aspects i.e. hedonic features that can motivate a customer towards purchasing (Arnold & Reynolds, 2003; Babin et al., 1994; Kim, 2002; Zhou, Dai, & Zhang, 2007). In addition, the role of hedonic features has been also found significant to propose customer purchase intentions in e-environment (Mare Hassenzahl, Platz, Burmester, & Lehner, 2000). Further, customer experience may require more aesthetics to enhance purchase intentions and it is the experiences in which they are involved with enjoyment (O'Brien & Toms, 2010). Online roamers can be engaged by aesthetic appealing visual display graphics that lead to staying web users on websites and lead to construct

purchase intentions (Madu & Madu, 2002). Aesthetic features of website pose a strong perception customer minds that stimulate intention towards the purchase (Constantinides, 2004; Constantinides et al., 2010; Sheu et al., 2009). Yang and He (2011), concludes that customers purchase intentions are highly influenced by their past experiences and what they see at purchase moment. This moment of decision can be enhanced with the help of aesthetic, hedonic elements that will help customers to feel relaxed with joyful interaction (Marc Hassenzahl & Tractinsky, 2006). Moreover, functional features of the website are also important in building good customer experience towards behavioral intentions (Constantinides, 2004). The functional elements drive comfort-ability of user interface on the website that leads to staying or switches to other websites due to being less user-friendly (Sheu et al., 2009; Takatalo et al., 2008). Hence, the customer would prefer those sites that are well functional in the user interface and interconnectivity (Constantinides, 2004; Mathwick & Rigdon, 2004; Sheu et al., 2009; Takatalo et al., 2008). Thus, the research hypotheses in light of literature review areas:

- H1: there is significant influence of customer experience on online purchase intention
- H2: online hedonic elements have significant influence on online purchase intention
- H3: online aesthetic elements have significant influence on online purchase intention
- H4: online functional elements have significant influence on online purchase intention

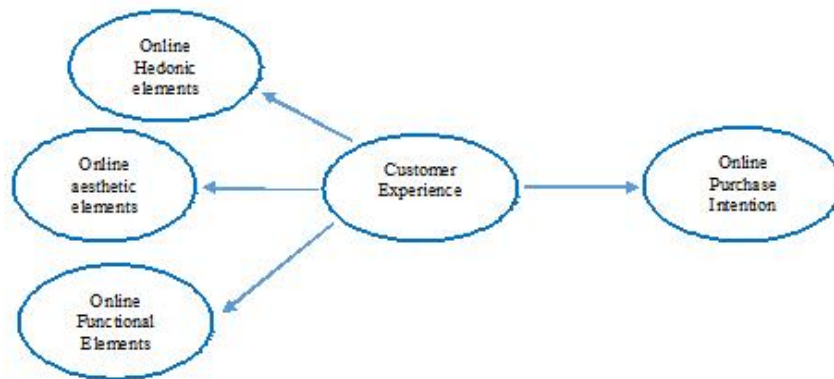


Figure 1: Conceptual Model

### 3. Research Methodology

#### 3.1. Sample size and data collection

In this paper, the researcher is predicting online purchase intention by predictor customer experience. Hence, internet users of minimum 18 years were respondents for conducting this study. However, a researcher could not select direct sample size from



the population due to the list of internet users is not available. Consequently, the researcher has used Non-Probability e-convenience sampling technique. Moreover, a total of 351 internet users contributed to this research by completing research survey. Systematically, the minimum threshold for sample size should be as big as it reduces the chances of error (Babin & Zikmund, 2015; Sekaran & Bougie, 2016) and proved to be best in an exploratory study.

Moreover, an online questionnaire was sent to respondents for collecting data, using 'Google Forms' questionnaire tool ([www.google.com/forms](http://www.google.com/forms)) by using a Likert scale from 1 for strongly disagree to 5 for strongly agree adopted from (Fang et al., 2014) to measure online hedonic elements, online aesthetics, and online functional elements. Similarly, online purchase intention was measured by using a Likert scale from 1 for strongly disagree to 5 for strongly agree adopted from (Yoo & Donthu, 2001). The prime focus of researcher was on online internet users and therefore individual who did not have internet access were not important to address. Further, questionnaire link was sent to students, professionals, and academicians using email, Facebook, and LinkedIn along with necessary information about research purpose so that respondents can understand about what they are being asked to record their responses and provide authentic information. Respondents were requested to fill survey questionnaire electronically that was in the English language. A total of 351 respondents participated in this survey. The responses were preceded further in data refining and cleaning phase i.e. missing value elimination (Hair, Black, Babin, & Anderson, 2010). The data refining and cleaning were performed by using SPSS v-18. In conclusion, a sufficient 326 responses were considered valid for further analysis.

## **4. Analysis and Results**

### **4.1. Respondent Profile**

In term of the respondent profile, questionnaire form was composed of demographic details of respondents i.e. gender, age, education, ethnicity, marital status, average monthly income, shopping experience, online shopping frequency. It can be concluded that 66.5% male customers and 33.4% female customers were found engaged in the online shopping environment. However, it has been also revealed that 48.4% young customers with age bracket have a major contribution in this study. Further, respondents in the majority were matric and intermediate qualified customers with 26.6% followed by 46.0% of total 100%. Similarly, customers with Sindhi Ethnicity covered a large portion of the sample with 34.6% and least by Baloch customers with 4.2%. Moreover, 66.5% single respondents followed by 36.1% customers with average monthly income of 21,001-28,000 completed questionnaire. The results of demographic analysis also suggest that majority of 30% customer were experienced in online shopping with 28.5% products online purchase frequency per year as shown in table 1.

*Table 1: Respondent Profile*

Factors	Profile	Total Number	(%)
Gender	Male	217	66.5
	Female	109	33.4
Age	18 – 22	158	48.4
	23 - 26	111	34.0
	27 – 30	33	10.1
	31 +	24	7.3
Education	No Education	63	19.3
	Matriculate	87	26.6
	Intermediate	85	26.0
	Graduate	58	17.7
	Post-Graduate	33	10.1
	Sindhi	113	34.6
Ethnicity	Punjabi	88	26.9
	Pakhtoon	47	14.4
	Baloch	14	4.2
Marital Status	Other	64	19.6
	Married	109	33.4
	Single	217	66.5
Average Monthly Income (PKR)	No Income	26	7.9
	7,000 – 14,000	35	10.7
	14,001 – 21,000	62	19.0
	21,001 – 28,000	118	36.1
Online Shopping Frequency (Per Year)	28, 001 +	85	26.0
	1 – 3	71	21.7
	4 – 6	48	14.7
Online Shopping Experience (in Years)	7 – 9	93	28.5
	10 +	87	26.6
	1 – 3	77	23.6
Online Shopping Experience (in Years)	4 – 6	98	30.0
	7 – 9	57	17.4
	10 +	61	18.7

#### 4.2. Validity Analysis

The researcher has used Composite Reliability, Cronbach Alpha and Average variance Extracted to measure the internal consistency of scale. These techniques were employed to measure the consistency among variable items used in this study. (Nunnally and Bernstein (1994)), suggested that all items for a latent variable are only effective when their minimum threshold should be 0.70. Further, all values of constructs are given in table 2 has qualified the minimum standards of tested dimensions on the basis of  $\alpha$ , CR, AVE.

*Table 2: Composite Reliability, Cronbach Alpha, Average Variance Extracted*

Constructs	( $\alpha$ )	(CR)	(AVE)
Minimum Threshold	$\geq 0.7$	$\geq 0.7$	$\geq 0.5$
Online Hedonic Elements	0.94	0.88	0.78
Online Aesthetics	0.88	0.91	0.81
Online Functional Elements	0.84	0.87	0.79
Online Purchase Intention	0.93	0.91	0.82

Further, the descriptive statistics is given in the table. It shows mean and standard deviation with minimum and maximum values of total frequency. However, the online functional elements have highest mean value and standard deviation at 0.9. Accordingly, all latent variables were measured with total variable error term variance. Hence, the descriptive analysis indicates adequacy of latent variables as shown in table 3.

*Table 3: Descriptive Analysis*

Constructs	Frequency	Min	Max	Mean	Standard Deviation
Online Hedonic Elements	326	1.23	6.00	4.7	0.7
Online Aesthetics	326	1.89	6.00	5.1	0.9
Online Functional Elements	326	1.57	6.00	5.7	0.9
Online Purchase Intentions	326	1.81	6.00	5.4	1.5

In addition, Pearson correlation was also measured to identify the relationship between all variable used in this model. The result of correlation analysis indicates correlation among used variable in this study is significant at  $p \leq 0.05$ .

*Table 4: Pearson Correlation Analysis*

Constructs	Frequency	Correlation Coefficient (r)	Sig Level
CE and OPI	326	0.814	0.001
OHE and OPI	326	0.725	0.001
OAE and OPI	326	0.842	0.002
OFE and OPI	326	0.814	0.001

#### 4.3. The Structural Equation Model (SEM)

The Structural Equation Model analysis was performed by using an advanced version of IBM-SPSS v-18. Analysis of Moment Structure that is widely known as AMOS has some of the key specialties that help p researchers of the world to employ it. For example, it represents the relationship of hypothesized models in non-graphical and graphical paths used in particular research and also generates cross-sectional and linear analysis to produce the model fit index. Hence, this research comprises regression and path analysis. Statically, results of the study indicate that influence of customer experience on online purchase intention is significant at p-value  $< 0.05$  while the Chi-

square ( $\chi^2$ ) value indicates a good fit. Thus, H1 there is significant influence of customer experience on online purchase intention i.e. OPI  $\leftarrow$  CE:  $\gamma = 0.81$ ,  $t = 4.41$ ,  $p$ -value = 0.01

Table 5: Hypothesis Testing

Hypothesis	Path	* $\gamma$	**t-value	***p-value	Results
H1	OPI $\leftarrow$ CE	0.81	4.41	0.01	Strongly Supported
H2	OPI $\leftarrow$ OHE	0.82	9.377	0.02	
H3	OPI $\leftarrow$ OAE	0.78	9.778	0.01	
H4	OPI $\leftarrow$ OFE	0.81	9.836	0.03	

\* Gamma ( $\gamma$ ), \*  $t \geq 1.96$ , \*\*\*  $p \leq 0.05$

#### 4.4. Measurement of Model

In addition, the researcher has tested model fitness through various indexes as shown in table 5. Similarly, Incremental fit index, Tucker-Lewis index, Comparative fit index, Chi-square and Root Mean Square error of approximation has been generated to test the model goodness. The overall result in table 5 indicates that model is a good fit at  $\chi^2 = 1.75$ .

Table 6: Model Fit Index

Model	Description	( $\chi^2$ )	TLI	CFI	IFI	NFI	RMSEA
	Full Conceptual Model	1.75	0.97	0.98	0.96	0.95	0.62

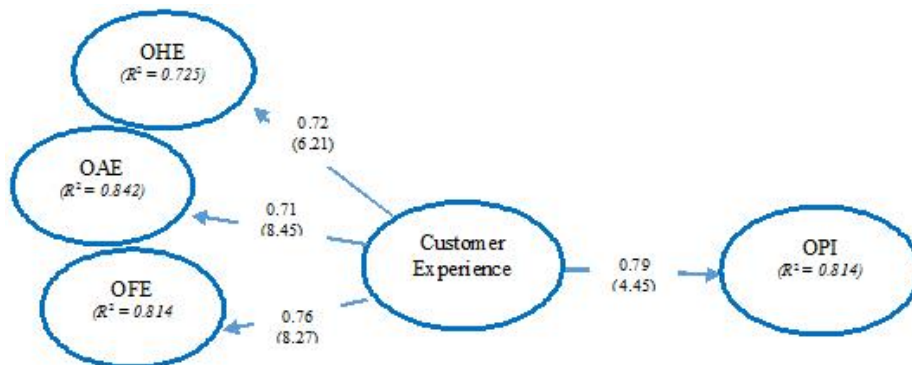


Figure 2: Measurement Model Results based on Main Hypothesis H1

Thresholds:  $\chi^2/df = 2 \leq 1$ ,  $IFI \geq 0.90$ ,  $RMSEA \leq 0.08$ ,  $NFI \geq 0.90$ , and  $CFI \geq 0.904.5$

#### 4.5. Hypothesis Testing

In order to test hypothesized model, Path Analysis and Multivariate analysis were employed. The results of the study indicate and confirm that there is a significant relationship between customer experience and customer online purchase intentions at  $p$ -value  $< 0.05$ . It indicates that relationship between customer experience and online purchase intention is significant at  $p$ -value  $< 0.05$  which means null hypothesis. There is no significant relationship between customer experience and online purchase intention is rejected. In addition, other three hypotheses the influence of three customer experience dimensions i.e. OFE, OA, and OHE found significant at  $OPI \leftarrow OHE$ :  $\gamma = 0.82$ ,  $t = 9.377$ ,  $p$ -value = 0.02;  $OPI \leftarrow OA$ :  $\gamma = 0.78$ ,  $t = 9.778$ ,  $p$ -value = 0.01;  $OPI \leftarrow OFE$ :  $\gamma = 0.81$ ,  $t = 9.836$ ,  $p$ -value = 0.03. Hence, the overall results of the study indicate that customer experience and its dimensions namely online hedonic elements, online Aesthetics and online Functional elements have a positive significant impact on online purchase intentions.

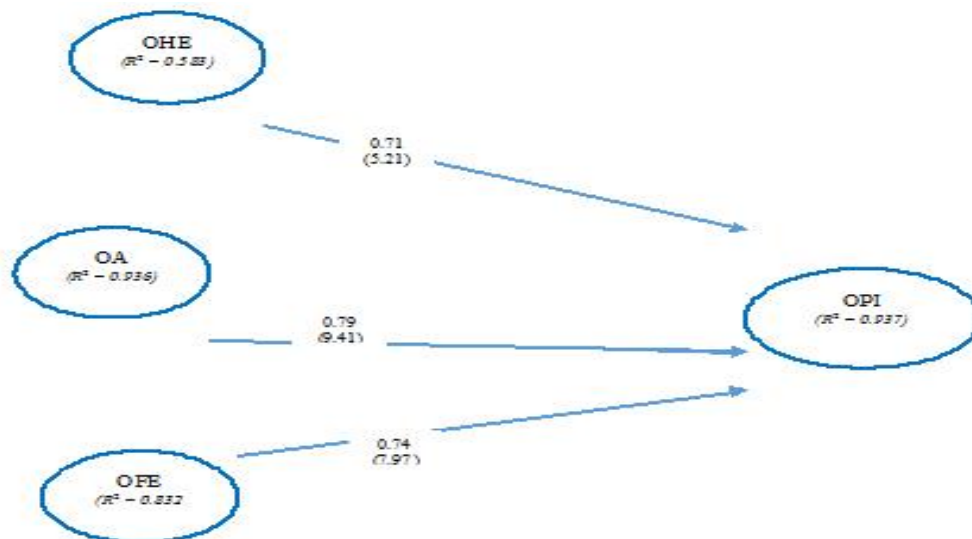


Figure 3: Measurement Model Results based on Hypothesis H2, H3, and H4

Fit Indices Result:  $\chi^2 = 447$ ,  $df = 216$ ,  $\chi^2 / df = 1.75$ ,  $CFI = 0.98$ ,  $TLI = 0.97$ ,  $IFI = 0.96$ ,  $NFI = 0.95$ ,  $RMSEA = 0.062$

#### 5. Discussion and Implications

This research aims to explore the influence of customer experience on online purchase intentions in online shopping industry. The results of this study have revealed that there is a significant positive relationship between customer experience and purchase intentions. Although, H1, H2, H3, H4 are accepted (Significance level i.e.  $\leq .000$ ) after employing Structural Equation Model. All hypotheses are accepted on the confidence level of 95%. Since it can be concluded that good customer experience generates

chances of customer purchase intentions of that particular company's product whose website is under customer's experience. Further, it has been proved that there is a significant influence of customer experience on online purchase intentions. In addition, results of this study significantly indicate the influence of customer experience on purchase intentions in an online environment. More specifically, denoting results of all sub-dimensions of customer experience (i.e. Online Hedonic elements, Online Aesthetics, Online functional Elements) also found significant on purchase intention in this study.

In conclusion, it can be said that customer experience causes and is directly linked with purchase intentions in an online environment. In other words, it can be summarized that online shopping website should pay their maximum attention to creating good customer experience by enhancing and improving customer experience stimulators (i.e. Online Hedonic elements, Online Aesthetics, Online Functional elements) that have been proposed and found significant in this study. Similarly, customers tend to purchase more frequent products whenever they find online shopping websites aesthetic, easy user interfaces in functional elements and possess hedonic elements in the online environment. This study entails that customer experience is one of the powerful and strong stimulators that shape customer purchase intentions in the online shopping environment. On other, it can be proposed that customers with strong purchase intentions may also reject product purchase if their experiences with website's hedonic elements, aesthetics, and functional elements are inadequate. Thus, online shopping companies i.e. PakStyle, Daraz, Lootlo, Shop Daily, Kaymu etc. should create adequate customer experience while the customer is roaming on their website to increase their purchase intentions.

## **6. Limitations**

The researcher has put his best efforts to contribute to the prediction of online purchase intention, however, there are still some of the limitations in this study. This research comprises only online active internet users who shop in online environments from different locations. Thus, the sample size is limited to online users only. Those customers who have abandoned online shopping after their online experience may have different perceptions regarding product choice, satisfaction, and experience. Therefore, it is suggested to interpret research results in the light of active online users and for generalization of concept additional sample size is required.

## **7. Future Directions**

In terms of future research directions, the potential researchers and scholars can investigate intervening variables as word of truth intentions, recommendation intentions, and repurchase intentions etc. as mediating variables. Moreover, researchers can also investigate customer experience and online purchase intentions in other industries i.e. Hospitality and Tourism Industry, Health and medical Industry and e- banking industry.



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## Capital Flows and Money Supply: The Degree of Sterilization in Pakistan

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### Abstract

The present study proposes to analyze the impact of the capital flows on the economic growth. The change in the capital flows affects the money supply in the economy which in return influences the economic growth. The augmented dickey fuller test (ADF), descriptive Analysis, correlation method, and the auto regressive distribution lag are employed in this work. The ADF test is delved to examine the Stationarity of the variables and the correlation between them. The descriptive analysis is used to check the normality of the variable whether the variables is normally distributed or not. The survey bases on time series data ranging from the year 1974 to 2014. The variables as the gross domestic product (GDP), exchange rate (ER), inflation (INF), consumer price index (CPI), money supply (M2), total reserves (TR) and the foreign direct investment (FDI), price indices (PI). The research findings are Foreign direct investment, Exchange rate, Inflation rate, Consumer Price Index has the positive impact on the GDP while the Private Investment, Total reserves, and Money supply have the negative impact on the GDP. The value of the R square is 0.99874 which is very good. It means that the 99 percent variations exist in dependent variable due to independent variables.

**Keywords:** Capital Flows, Money Supply, Total Reserves, Gross Domestic Product, Pakistan.

### 1. Introduction

Capital flow means the money transfer across the border; it refers to the movement of money for the purpose of investment, trade, or the growth of business or production. The capital means cash and factories, property owned by the owner for the purpose of production. For the purpose of analysis the US government used the aggregated capital flow. The capital flows across the world in the form of flow of bonds, assets in the form of cash. The purpose of capital flow is to increase the growth of economy in the form of investment capital. The strength of the capital flow can be explained with the help of capital flow in the capital market. The trend of capital flows can be used to predict the future investment risk. With the help of capital flow the investor or predictors can find out trend of growth and equilibrium or disequilibria of stock market <https://doi.org/10.30537/sijmb.v4i1.102>

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in the future investment of capital. The flow of capital can be explained and monitored by the capital market. The capital market is that market which is used to find out the sale and purchase of goods, bonds, assets, and debt in the other markets. The capital market can be used to monitor the investment activities which are done with the help of capital flows across the world market. It can also judge investment and saving activities between the sellers of capital and the buyers of the capital. There are two type of capital markets in the world that is primary and secondary capital market. The primary capital market is including the flows of liquid assets such as bonds, equity, while the secondary capital market is involved in the trade activities in the world market. In the primary capital market the companies issue bonds and other stock assets to the investors while these secondary capital markets include in the investment such as the capital from the pension funds, mutual funds and the funds in the bank and financial institution. Other type of capital flow is in the form of the government bonds issued by the government for the sake of monetary expansion and increase the supply of money in order to remove the financial crisis. There are direct relationships between the capital market and the size of economy. The capital market directly and indirectly depends on the size of the economy. As the size of economy is larger than the capital market also be greater and vice versa. United States the world largest economy has largest and deepest capital market. When the capital flow is increased it leads to increase the high exchange rate with lower rick while the capital users try to increase the capital with the lowest cost. Money supply means the total amount of the money asset is available in the country. Due to the larger outflow of capital cause the financial deficit such as in the 1980 international crisis, in 1992-93 crisis in European exchange rate mechanism, 1994-1995 Mexican peso crisis and 1997-1998 Asian crises. Hot money is the speculative capital flow that mainly is used in short term to fulfil the financial needs. The hot money is used to remove the boom period of the one sector of the economy. When one part of the economy is suffering from the financial crisis and budget deficit then this situation leads to boom period. In this situation the investors are not ready to invest their capital assets in that sector of economy because they want a better destination for their capital assets so they do not transfer their assets in that part. In this case the hot money is used to remove the financial crisis and boom period of that part of the economy. When the capital flow is out of the pains then this situation causes the financial crisis.

The capital flow can increase the growth of economy and enables the household to be achieving the highest consumption level during different time periods. The capital flow helps the countries to achieve the highest possible level of the portfolio. Qayyum and Khan (2003), Analyzed the money supply and capital flow and the degree of sterilization in Pakistan by using the time series data that is quarterly data and concluded that degree of sterilization and the exchange rate are directly related and the sterilization decreases the impact of exchange rate on the price indices. Ullah, Haider, and Azim (2012), explained the exchange market forces on the Pakistan rupees exchange rate in the globalization period by using the time series data which is



quarterly data and using the co integration techniques. They concluded that the relationships between the exchange rate and capital flow and money supply are very strong. Fry-McKibbin and Wanaguru (2013), analyzed the monopoly of capital flow by using the time series data and techniques of ADF and OLS to prove the Stationarity of the variables. This paper concluded that there is strong relationship between the interest rate and capital flow. Lagner and Knyphausen-Aufseß (2012), investigated the practical approach towards the capital and money market. This paper explains the relationship between the money market and capital market. There are many literatures that can explain the relationship between the exchange rate, capital flow and the money supply. As Change in the flow of capital can affect the exchange rate and the money supply in Pakistan. When the large amount of the capital inflow situation occurs in the country, it has many negative effects. These negative effects increase the inflationary pressure, expansion of monetary policy and decrease in the price of goods in the receiving countries and increase the exchange rate then it causes to be expensive exports as compared to the other countries goods and services. Then in return a situation occurs where too much money chases too few goods. When the large amount of the capital outflow occurred then it caused the price of the goods lower an actual and the value of currency of a country reduced.

The objectives of this study are as below;

- [1]. 1: To analyze the impact of the money supply on the GDP.
- [2]. 2: To analyze the impact of inflation on GDP.
- [3]. 3: To analyze the impact of TR ON GDP.

This evident explained the relationship between the exchange rate, inflation and the money supply in the long run and the short term.

## **2. Literature review**

Kaufman, Mote, and Rosenblum (1984), investigated on the effects of sterilization intervention. The main objective of this paper was to explain the capital flows across the world market and the monetary policy and the effect of sterilization. This paper used the time series data ranging from the 1973 to 1980 in order to find capital mobility in US economy. This paper used the two stages two OLS techniques, auto regression model, and ADF test as methodology. This paper used the variables as interest rate, direct portfolio investment, GDP, investment, saving, and inflation gap. The 2S-OLS was consistent under null hypothesis of perfect substitutability and inconsistent under portfolio balance effect. Auto regression component was assumed to arise from structural error. This paper concluded that the portfolio remains insignificant. The portfolio balance remains recognized that typically sterilized intervention operation was very small to existing stock of outside assets. This paper explained that the small intervention may have large general equilibrium effect, sterilized intervention operation was typically so small relative to total assists one reluctant to believe that they have any significance macro-economic impact through portfolio balance channel.

The portfolio balance model was predicted that uncovered interest rate differential on assets denominated in currency should be increasing function of supply.

Obstfeld (1998), investigated capital flow market world. This paper presented some new empirical approach on the extent of capital market world. The main objective of this paper was to explain the capital flow and impact of capital flows in the market world. This paper used the time series data ranging from the 1960 to 1984. This paper used the correlation techniques to look at the level of Stationarity and non-Stationarity of the variables and the level of significance between the variables. The saving investment correlation coefficient was a structural parameter reflecting the response of domestic investment to shift national saving. This paper conclude that was small size of average current account over a long period was evidence that sizeable barriers impede the free international movement of capital. This paper used the variables as GDP, CPI, investment, consumption, saving, inflation, interest rate, capital consumption and current account balance. This paper concluded international market exchange rate liberalization of industrial country capital market begins. This paper explained that in US and JAPAN the consumptions have behaved as if residents of two countries had access to some risk free borrowing and lending opportunities. Significance level of test statistics were all extremely high for period. This paper reported time series estimation for several countries of correlation between quarter to quarter changes in saving and investment correlation as un-ambiguous evidence about capital mobility. This paper also concluded that capital was essential immobile in some long run sense. The change in saving and change in investment were significance at first difference. Correlation coefficient between the change in saving and change in investment were positively related and statistically insignificant.

Ocampo (2003), investigated monetary policy and financial stability. The main objective of this research paper was to explain the monetary policy and uncertainty and the adopting monetary policies to effect the economy. The purpose of this paper was to evolution of economic environment with the help of a few indicators of economic performance and policy regimes. The indicators of economic performance include an inflation, short term output level, assets price booms and busts. The financial liberalization can be remarkable development in financial sphere. This paper used the time series data ranging from the 1960 to 2002 in order to explain effective decline in prices. This paper used the regression technology as the methodology. This test used to find out correlation and associations between the variables. This paper used the variables as the GDP, GDP deflator, inflation gap, credit gap, output gap, credit assets price, and exchange rate. The basic thesis of this paper was that edging towards the goals of securing simultaneous monetary and financial stability calls for some modifications in the monetary policy both in financial and monetary spheres. This paper indicated that a financial imbalance was a leading cause of inflation. Financial imbalance was build up when the inflation was low and stable. There was a negative relationship between inflation and financial imbalances.

Bordo and Filardo (2005), investigated capital flows and fiscal discretion and exchange rate policy. This paper used to explain a capital flow model and was linked to exchange rate regime because of endogenous fiscal policy. The main objective of this paper was to explain that hard peg was undesirable in the absence of commitment in fiscal policy. The fiscal authority's subsidies capital flows in order to fix an exchange rate credibility. The monetary authorities follow a rule flexible exchange rate rule in which capital inflows lead to exchange rate appreciation. When the fiscal policy was financed by monetary policy rather than that of the monetary creation rather direct taxation then fixed exchange rate rule may cause both over borrowing and subsequent exchange rate crisis. This paper used the time series data ranging from 1971 to 1999. This paper used the correlation techniques as a methodology. This test used to explain the correlation between the variables and check the stationary of variables. This paper concluded that linkage between fixed exchange rate regimes and capital flows in environment of endogenous fiscal policy. This paper explained that the capital market depends upon the exchange rate policy. The essential conclusion of this paper was that hard peg should be accompanied by coordination between monetary and fiscal policy. This also suggested that an appropriate exchange rate allowing capital inflows to be measured by appreciation. This paper also concluded that level of nominal exchange rate depends on the extent of money supply which depends on limits on direct taxation.

Hyder and Mahboob (2006), investigated the impact of exchange market forces on Pakistan rupees exchange rate during the globalization period. This paper used the methodology of co-integration techniques, dickey-fuller test and descriptive statistics. These techniques were used to explain the stationary and non-stationary between the variables coefficients. This paper used the time series data ranging from the 1965 to 1971. The variables in this study were domestic credit growth of the foreign exchange rate, nominal domestic money balance, domestic price, real income, nominal interest rate. This study concluded that the development expectation had statistically and economically significant explanatory power in addition to the behavior of the fundamentals of the Pakistan economy. This paper analyzed the impact of exchange market forces on Pakistan rupees verses dollar exchange rate. The result of this study explained the relationship between the capital flows and the exchange rate. There was a strong association between the exchange rate and capital flows.

Alberola and Serena (2007), investigated the global financed integration monetary policy and reserve accumulation; assessing the limits in emerging economics. Sterilization was implemented through the market instrument open market instrument and to less extent to the fiscal policy managements. There was a strong relationship between the market currency and reserves. High supply currency caused inflation in country. Sterilization through the market operations caused a high interest rate when the supply of assets was higher than that of the demand for assets. Both increased in debt and interest rate caused a potential risk in debt managements. The benchmark model was used by this paper. These techniques used to determine the correlations

between the coefficients in order to explain the relationship between the capital flows and monetary policy. This study used the time series data ranging from the 1990 to 2005. In this study the variables credit to banking system, foreign exchange reserves, other domestic assets, current account balance, money supply and GDP were used. The central bank can decide to sterilize the reserves accumulation to prevent it from filling into high liquidity in system. Sterilization can be done through market instruments, the central bank is able to contain the monetary cost of reserves accumulation through sterilization and without resorting to change in policy.

Khan (2008), investigated long run and short run Dynamics of foreign reserves and domestic credit. This study formulated and examined the money approach to balance of payment by incorporating the currency substitution version of money demand function by Pakistan. This study used the methodology of FM-OLS and Johansen-Jealous co integration techniques. This study used the time series data ranging from 1962 to 2005. In this study the variables real output, real exchange rate, domestic credit, foreign reserves. Monetary authorities sterilize foreign exchange reserves to domestic credit by 12% in long run and 34% in short run. They concluded that the validity of monetary approach to balance of payment and effectiveness of monetary policy depend upon nature of money function. As the specification of money function has undergone a change the monetary approach has also altered.

Farhi, Gourinchas, and Rey (2011), investigated that the international reserves spar inflation. The main objective of this study was to explain the relationship between the capital flow and the national reserves. This study used the time series data ranging from 1970 to 2006. This study used the methodology of granger cause inflation to check the rate of inflation. In this study the variables nominal income, money supply, real income, velocity of income was used. Global reserves growth significantly raised the inflation rate with lag of two years. The degree of sterilization of the effects of reserves changes on monetary base was changed considerably over time. Central bank international reserves holding have increased significantly in recent years. This paper assesses the consequences for monetary policy both on the theoretical and empirical ground. This paper is especially likely for those countries that operate under fixed exchange but may also affect countries with floating rate proportionate their individual's rate of reserves accumulation. The capital account referred to as the convertibility to the foreign reserved to the country residential. This research paper was to explain the relationship between the world inflation rate and world exchange rate.

Rashid and Husain (2013), examined the capital flow, inflation, and exchange rate volatility. The main objective of this paper was used to investigate the relationship between the capital flows, exchange rate and the inflation in economy. This paper used the linear and nonlinear co integration and GRANGER Causality test were applied in a bi variety as well as multivariate. In this study the variables capital inflow, money

supply, inflationary pressure, exchange rate, monetary expansion was used. This paper used the time series data ranging from the 1990 to 2007. This paper investigated inflationary effects of capital flows using monthly data. Positive and significant effects of capital inflows on monetary expansion, particularly during the period of massive capital inflows from 2001 to 7, capital account convertibility referred to the availability of foreign exchange reserves to country residuals to purchase assets abroad are to non-residuals to purchased assets in the country. Main objective of capital flow was to delay a fall in international reserves. International reserves were a part of monetary base.

Hashmi, Xu, Khan, Bashir, and Ghazanfar (2011), investigated the monetary policy reaction function and sterilization of capital inflows. This paper used the multivariate co integration model. OLS estimation techniques were used by this study to estimate the long run adjustment coefficient of variables. These test used to check the stationary of variables to get the reliable estimate. The co-integration techniques and ADF test were used to check the stationary of the variables and the level of significance between the coefficients. This study focused on estimates of monetary policy reaction function and degree of sterilization for the sample comprising the Pakistan, Korea, Philippine, and Japan by using the time series data ranging from 1980 to 2008. In this study the variables domestic interest rate, real interest rate, real income, money supply, and money demand were used. Over the period of study the central bank concluded a strong sterilization policy but not fully sterilized the capital flow. These countries used the sterilized policy in long run. Short run adjustment to the long run equilibrium shows a high value of adjustment in these countries. The result of this study concluded that there was a strong relationship between the interest rate and inflation. The growth of money supply caused an inflation in Pakistan. Pakistan has sterilized with most of its foreign capital inflows and its coefficient was high in short run and in the long run.

Fry-McKibbin and Wanaguru (2013), examined the Analysis of currency market volatility in Sri Lanka. Objective of this study was to analyze the relationship between the currency market and the inflation in economy. This study used the methodology of latent factor model which is distinguishing between the inventory and non-inventory day .this study used the time series data ranging from 2002 to 2012. In this study the variable les interest rate, inflation, GDP exchange rate and real income were used. The central bank intervention in the foreign exchange market can be distinguish as an effective policy measures which has reduced exchange rate volatility arises in domestic currency markets. This study investigated whether the volatility of currency markets in Sri Lanka stems from domestic currency markets specific sources or external sources. The study explained that the high growth of currency caused the high GDP in economy which caused the high inflation rate in economy.

Demyanyk and Hasan (2010), investigated the foreign exchange stability. This paper examined the relationship between foreign exchange reserves accumulation, exchange rate, inflation and gross domestic product in Nigeria. This study used the methodology

of ADF test, multivariate co-integration techniques and error correction model. These tests used to investigate the stationery and non-stationery. This study shows the variables in the study have unit root. This study used the time series data ranging from 1980 to 2001 in this study the variable foreign exchange, GDP, inflation, foreign exchange reserves were used. This paper examined the positive relationship between the GDP and exchange rate and significant relationship with the foreign exchange reserves accumulation while inflation has the negatively and insignificant relationship with foreign exchange reserves.

Jegajeevan (2015), examined the simultaneous estimate demand for and supply of money in Austria. This paper used the methodology of simultaneous equation model and applying the three-stage least squares method, ADF and co integration method. This study used the time series data ranging from the 1975 to 2013. In this paper the variables demand for money, supply of money, real income, real interest rate, inflation, output gap and inflation gap were used. The ADF and co-integration test were used to investigate the stationary and non-stationary of variables. This paper concluded that the money demand is negatively related with the interest rate and positively related to the GDP and nominal effective exchange rate and money supply has positive relationship with the interest rate and negatively related with the output gap and inflationary gap .the result of paper suggested that federal reserve's band reduced money supply if the output gap or inflationary gap increased in Australia.

### **3. Theoretical and Conceptual Framework**

#### **3.1.Quantity theory of Money**

Quantity theory of money is the most important theory about monetary economics which defines the relationship between money and price level just like if there is more money in market available to the consumers so this will also lead to increase in prices of goods and services. The Quantity theory of money was presented by the Classical economists or pre-Keynesian economists. It can be stated as:

$$P = f(M)$$

P can be pronounced as price level is fully dependent on money supply. If price level increases with a proportion then money supply will also increase with the same proportion, and if price level decreases then supply of money will also decrease.

The quantity theory of money was first presented in 1586 and it got the great appreciation after another economist named Irving Fisher in 1911. After him many other theories were developed on the same approach. There was also another group of economists that was popular by the name of group Cambridge approach. They were also in favor of the concluded results of Classical economists.



**Assumptions about theory:** There are two suppositions about the Quantity theory of money. The first one was generated by the very famous law known as Say's law which is: *Supply creates its own demand.*

This can be explained as all the goods that are brought in the market are equal to the goods that are brought from the particular market. All we can say that there will be no absence of demand or no single resource will be wasted and every single person in the economy will enjoy full employment.

The second assumption was also driven from the Say's law that is economy is enjoying the condition of full employment.

**Quantity theory of money:** According to Irving Fisher

As we know that the price level is the determined at the point where demand equals to its supply. Likewise, the merits of money are also decided by the money supply and money demand. In the theory of Irving Fisher, he stressed upon the concept that money is a mean of exchange. It means that money is only used for bargaining purpose. As axiom given here that the total account of goods that are available in the market for the purpose of trade, are equals to the total account of money spending. That can be exemplified as:

$$MV = \sum p_i q_i = PT$$

Where:

M = hand keep money in economy

V = velocity of circulated money

P = prices of goods

$\sum p_i q_i = p_1 q_1 + p_2 q_2 + \dots + p_n q_n$  are prices & outputs of goods

$q_i$  = quantity of goods to be accomplished

$p_i$  = mean price level

T = total volume of goods to be traded

This statement has always held true as it tells us about the total accounts of commodity that are available in market for sale and the total expenditures of money to purchase those commodities. The mean number of times when a unit of money moves from one hand to another is known as the velocity of money.

Can be defined as follow:

$$V = \frac{P \times T}{M}$$

According to Say's law, the velocity of money should be remained fixed because of fully employed economy as it can be found out with the help of use of money in

payments pattern, environment of banks and transportation costs, changes in population.

If we consider V & T as constant, then we can also write the above equation as:

$$MV = PT$$

### **Quantity theory of money: Cambridge approach**

Another approach developed by the economists known as Cambridge economists which is known as Cash balance approach.

They argued that money is not only the medium of exchange but also a store of cash or wealth. (Cash that people want to hold for the sake of emergency).

In this approach few of very famous economists were included like Keynes, Marshall, Pigou and Robertson. According to them, people wants to hold money rather the for the purpose of financial transactions also for unwanted circumstances. Thus as an income of single person increases, he/she also increases the demand for cash money to be held. So they represent it as follow:

$$M_d = kPY$$

*Where:*

Y = Aggregate level of output

P = Level of mean prices

k = the proportion of income that people wants to hold.

#### ***Limitation about Theories:***

Defectiveness in full employment.

V & T are not being fixed.

This theory is a hypothesis but Fisher's theory is identity.

Aggregates have an effect on price level not money.

So much stress on money supply.

Interest rate is the cause of influence between M & P.

After all these shortcoming and demerits, the Quantity theory of money has a great effect on economy and has several merits. In this theory the relationship may not be proportional but all we know that inflation raises when supply of money increases.

## **4. Model Specification, Data & Methodology**

### **4.1. Data**

For analyzing the model, I selected the time series data of 34 years. This study covered the time period from 1974-2014. In this study, the econometric technologies (ARDA,

ADF, Correlation Descriptive Analysis and Granger Causality test) are used. This study used secondary data from different sites. The sources of the data collection are following: - SBP (State Bank of Pakistan), PBS (Pakistan Bureau of Statistic), IMF (International Monetary Funds) and handbook of statistics of Pakistan.

#### 4.2. Model Specification

In this analysis we used the ADF, ARDL, Descriptive analysis and correlational techniques. The ADF test is used to check the Stationarity of the variables. The ARDL techniques are used to check the long run and run coefficients of the variables. The stability test is used to check the stability of the data.

##### Equation 1:

$$Y = f(\text{GDP})$$

Where

Y=Output,

GDP= Gross Domestic product.

##### Equation 2:

$$\text{GDP} = \alpha_0 + \beta_1(\text{FDI}) + \beta_2(\text{INF}) + \beta_3(\text{M2}) + \beta_4(\text{EXR}) + \beta_5(\text{CPI}) + \beta_6(\text{TR}) + \beta_7(\text{PI}) + \epsilon$$

Where

GDP= Gross domestic Product.

FDI= Foreign DIRECT investment.

INF=inflation.

M2=money supply.

EXR=exchange rate.

CPI=consumer price index.

TR= Total Reserve.

PI= PRICE INDICES.

These are variables that affect the capital flow and money supply such as the GDP gross domestic product, total reserves (TR), inflation (INF), consumer price index (CPI), Money supply (M2), foreign direct investment (FDI), and exchange rate (EXR).

In equation (1) Output is dependent variable of GDP but in the 2nd equation GDP is the dependent variable of other variables.

#### 4.3. Model

In this diagram the GDP is dependent variable and the independent variables are pi, INF, FDI, CPI, M2 and EXR. The GDP and other variables are connected with each other. Any small change in one variable causes a change in the other variables.

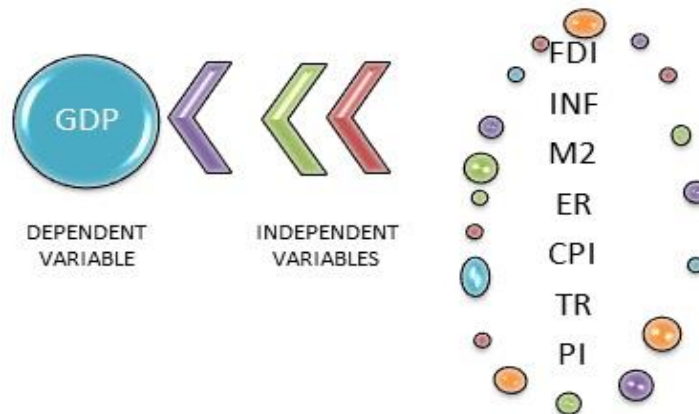


Figure 1: Relationship of the Variables

#### 4.4. Description of Variables

##### 4.4.1. Gross Domestic Product

The GDP is defined as the economic indicator, the growth which is used to measure the final goods and services which are consumed by the consumer in one year. The GDP is measured by the three ways, One is the income approach second is the expenditure approach and the last one is the product approach. In the product approach, we used to measures the GDP by adding all the income of the factors of the production and then we find out the final value. In the expenditure method we have to calculate the total expenditure which is used by the government for the welfare of the economy.

$$Y = C + I + G + (X - M)$$

These are the components of the GDP in which the C is the consumption, Y is the total output, I is the investment and the X is the exports and the M is the imports.

##### 4.4.2. Foreign Direct Investment

There are strong relationships between the Foreign Direct Investment (FDI) and the economic growth. With the help of the FDI the large amount of the FDI is needed in the country for increasing the economic growth. To increase the economic growth by 7% to 8%, we have to increase the FDI with the investment of the 35 to 40 of GDP. National saving has to be decreased to 10%. The FDI have to meet the gap between the investment and the saving. The government has to produce the opportunities for the foreign investors. FDI defined as foreign direct investment is the investment in a business by an investor from the country for which the foreign investor has control over the company purchased.

##### 4.4.3. Inflation

In economy the inflation is referred to increase in the price level. Inflation badly affects the economy growth. Inflation is defined as the sustained rate at which the general price

level of the goods and services is increased and the purchasing power of the currency is decreased. The standard definition of the inflation is the percentage change in the value of the whole sales price index on the years on year's basis. It effectively measured the change in the prices of the goods and services in years. Inflation means that your money won't buy as much goods as you would yesterday.

Inflation has worst impact on the consumers. Due to inflation the consumers are unable to purchase the necessities of life. The inflation rate of 2% to 3% is not bad because at this low inflation rate the consumers purchase the goods and borrow more at this low level of inflation. The interest rate is slow at this low level of the inflation so the people borrow more at this low level of the inflation. The central bank tries to control the inflation at this low level and decrease the deflation.

#### **4.4.4. Money Supply**

Money supply is the most important indicator of the economy. There is strong relationship between the supply of the money and the prices of the goods. When the supply of the money is increased then the price of the goods is decreased. Federal reserves are the most important determinants of the money supply. Federal serves affect the money supply by altering the component of the money supply as the bank and the debits. Money supply is defined as the group of the safe assets that the household and the businesses used to make the payment or to hold for the short term investment. Total amount of the money assets in the economy is called the money supply. The central bank of the economy measures the supply of the money.

#### **4.4.5. Exchange Rate**

Exchange rate is the most important element in which we have to determine the economic health of the economy. With the help of economic exchange rate the economy gains stability. The exchange rate is defined as the price of one currency in the term of another currency. There are two types of the exchange rate. One is the fixed and the other is the floating. The fixed exchange rate is measured by the central bank while the floating exchange rate is determined by the mechanism of the market of demand and supply. Values of the currencies relative to one another is called the exchange rate.

#### **4.4.6. Consumer Price Index**

CPI is used as the economic indicator which is used to estimate the accurate level of the inflation in economy and to use in the value fixation such as the pension etc. CPI is defined as the A measure of the changes in the purchasing the power of the currency and the rate of inflation. The CPI expresses the current prices of the baskets of the goods and services in the terms of prices during the same period in the previous year to show the effect of inflation on purchasing power. CPI is also known as the ECONOMIC and lagging indicator in economy. The CPI is assumed to measure the inflation. Certain categories of the consumption are made by dividing the consumption items. Then the aggregate change in the prices of the goods is measured by the CPI. It can also measure

cost of living. The inflation is also measured by the proportional change in the index. It gives the amount of the inflationary pressure, increase in the price of the goods and services. CPI is used as the indicators of the change in the prices of the consumers goods while the change in the prices or the money is also be measured by the CPI and the CPI is useful in that situation because it indicates the cost of living.

#### 4.4.7. Total Reserves

A reserve means total assets or the total cash in the bank. The total reserves are also the most important indicator of the economy. The economic growth depends on the total reserves that the country has for the better welfare of the economy. The strength of the country is referred to the total reserves of the country. The total reserves make the country more powerful than the others. The sum of all the deposit that the depository initiation such as bank, building society credit union, finance company, insurance company, is allowed to take as the part of the legal requirements. It include on cash, vault, cash in transaction to or from the bank and the current reserves account with the central bank.

#### 4.4.8. Price Indices

Price indices are also known as the price indexes and they are referred to as the average prices of the goods and services in a different time period and the different regions. The prices indices are defined as the percentage number that shows the extent to which the price of the goods and services has changed over the time period as compared with the price with the certain years taken as standard. A price index r indices normally average of the prices of the goods and services for the given period or region during the given time interval. The Price index is used to measures the price changes in a particular period of the time to show how the prices of the goods and services are changed according to the change in the quantity and quality of the goods is changed.

*Table 1: Unit of Measurement*

Variable	Unit of measurement	Expected sign	Sources
GDP	Million dollar	+	PBS
FDI	Trillion	+	SBP
INF	Million dollar	-	PBS
M2	Million dollar	-	PBS
ER	2010=100	+	PBS
CPI	2010=100	+	WB
TR	Million dollar	+	HBS
PI	2010=100	-	WDI

#### **4.5. Procedure of Estimation**

In estimation process, there are different steps concerned. Estimation process is done with the help of software E-Views 9.5. The analysis used the time series data to approximation of its time series properties firstly apply descriptive and correlation methods on the data. Then check Stationarity of variables with the help of E-views. The estimation process guides to make a decision about the precise methods to be used in the analysis. The next step of estimation of process is (Bound test) to search out whether the long-run association between relating variables exists or not. After that short-run and long-run coefficients will be calculated.

##### **4.5.1. Stationarity**

It is significant in our judgment to check the stationary consequence of data. Stationary influence in the model arises when the mean and variance of the model are the same (constant) and non-stationary of variable needs the state of non-constant mean and variance. The spurious regression issue may infect the time series data. The spurious regression problem can be avoided by checking the data stationary, that data is stationary or not.

##### **4.5.2. Unit root test**

This test is implemented to scan the stationary temperament of our associated variables. If the coefficients which are approximate have spurious regression then these coefficients will not have the assumption of BLUE (best linear unbiased estimate). To get away from this dilemma of spurious regression the ADF (augmented dickey fuller) test developed by dickey and fuller is used. They formulated this progression to check the stationary circumstance and then f-version that assembled the lagged value of dependent variable to control the dilemma of autocorrelation in residual term.

##### **4.5.3. Co-Integration**

Co-integration refers that there is a long run association present between the variables which are non-stationary at level I (0). There are various co-integration methods to analyses the long term connection among variables. Some famous methods of co-integration are Engle-Granger (1987) and Johansen and Jeselius methods. Engle-Granger is two stepped residual base method and modern ARDL method now-a-days.

##### **4.5.4. Auto Regressive Distribution Analysis**

Pesaran, Shin, and Smith (2001), represented the ARDL performance to check the long run and short run relation along with the variables. But only one condition can be estimated through ARDL method. Moreover ARDL is helpful when sample size is small (Narayan, 2004). Johansen and Engle Granger are thought not appropriate to use if sample size is small. When the integration of variable of order zero I(0) or I(1) then ARDL is preferred and if there is a mixture of stationary effect of variables at level and first difference then ARDL is also used. Pre testing of variables are required by Johansen co-integration method. This paper also uses ARDL technique which assists

us to prefer suitable method of estimation further. Wald test is then used as a next step to check the long-term relationship between variables relation exists or not and in the end calculation of short and long run coefficients will be done.

Due to verification of ARDL scheme which is to be implemented at small samples, this study uses ARDL method. If model have dummy variables then to analyze co-integration ARDL is used. ARDL would not show authentic results when variables are integrated of order I(2). Hence in this case ARDL is not used. ARDL performance has two phases; first phase used F. statistics to make sure the long run relation in the model. In next phase the coefficients of long and short run affiliation are checked and include the conclusion application of ARDL system.

#### 4.5.5. Stability Test

The stability test of the short run and the long run is explained with the help of the stability test such as the CUSUM test and CUSUM square test. In the CUSUM test the blue lines must be in between the two red lines show the correctness and stability of the test. 4.2.1. Model Specification.

The following equation is estimated to scrutinize the short-run association between following ARDL:

$$\Delta GDP_t = a_0 + a_1 \sum_{kj=1} \Delta GDP_{t-j} + a_2 \sum_{kj=0} \Delta FDI_{t-j} + a_3 \sum_{kj=0} \Delta INF_{t-j} + a_4 \sum_{kj=0} \Delta M2_{t-j} + a_5 \sum_{kj=0} \Delta ERT_{t-j} + a_6 \sum_{kj=0} \Delta CPI_{t-j} + a_7 \sum_{kj=0} \Delta TR_{t-j} + a_8 \sum_{kj=0} \Delta PI_{t-j} + \delta_1 GDP_{t-1} + \delta_2 FDI_{t-1} + \delta_3 INF_{t-1} + \delta_4 M2_{t-1} + \delta_5 ERT_{t-1} + \delta_6 CPI_{t-1} + \delta_7 TR_{t-1} + \delta_8 PI_{t-1} + \epsilon_t$$

The 2<sup>nd</sup> step involves the long-run projection relationship between consecutively variables. The following equation is showing the evaluation of long-run model:

$$GDP_t = a_0 + \sum_{ki=0} \theta_1 j GDP_{t-j} + \sum_{ki=0} a_1 j FDI_{t-j} + \sum_{ki=0} a_2 j INF_{t-j} + \sum_{ki=0} a_3 j M2_{t-j} + \sum_{ki=0} a_4 j ERT_{t-j} + \sum_{ki=0} a_5 j CPI_{t-j} + \sum_{ki=0} a_6 j TR_{t-j} + \sum_{ki=0} a_7 j PI_{t-j} + \epsilon_t$$

The ARDL technique for the Error Correction (ECM) or short-run illustrated as:

$$\Delta GDP_t = a_0 + \sum_{kj=1} \theta_1 j GDP_{t-j} + \sum_{kj=0} a_1 j \Delta FDI_{t-j} + \sum_{kj=0} a_2 j \Delta INF_{t-j} + \sum_{kj=0} a_3 j \Delta M2_{t-j} + \sum_{kj=0} a_4 j \Delta ERT_{t-j} + \sum_{kj=0} a_5 j \Delta CPI_{t-j} + \sum_{kj=0} a_6 j \Delta CPI_{t-j} + \sum_{kj=0} a_7 j \Delta CPI_{t-j} + \sum_{kj=0} a_8 j \Delta CPI_{t-j} + \sum_{kj=0} a_9 j \Delta CPI_{t-j} + \sum_{kj=0} a_{10} j \Delta CPI_{t-j} + \sum_{kj=0} a_{11} j \Delta CPI_{t-j} + \sum_{kj=0} a_{12} j \Delta CPI_{t-j} + \sum_{kj=0} a_{13} j \Delta CPI_{t-j} + \sum_{kj=0} a_{14} j \Delta CPI_{t-j} + \sum_{kj=0} a_{15} j \Delta CPI_{t-j} + \sum_{kj=0} a_{16} j \Delta CPI_{t-j} + \sum_{kj=0} a_{17} j \Delta CPI_{t-j} + \sum_{kj=0} a_{18} j \Delta CPI_{t-j} + \sum_{kj=0} a_{19} j \Delta CPI_{t-j} + \sum_{kj=0} a_{20} j \Delta CPI_{t-j} + \sum_{kj=0} a_{21} j \Delta CPI_{t-j} + \sum_{kj=0} a_{22} j \Delta CPI_{t-j} + \sum_{kj=0} a_{23} j \Delta CPI_{t-j} + \sum_{kj=0} a_{24} j \Delta CPI_{t-j} + \sum_{kj=0} a_{25} j \Delta CPI_{t-j} + \sum_{kj=0} a_{26} j \Delta CPI_{t-j} + \sum_{kj=0} a_{27} j \Delta CPI_{t-j} + \sum_{kj=0} a_{28} j \Delta CPI_{t-j} + \sum_{kj=0} a_{29} j \Delta CPI_{t-j} + \sum_{kj=0} a_{30} j \Delta CPI_{t-j} + \sum_{kj=0} a_{31} j \Delta CPI_{t-j} + \sum_{kj=0} a_{32} j \Delta CPI_{t-j} + \sum_{kj=0} a_{33} j \Delta CPI_{t-j} + \sum_{kj=0} a_{34} j \Delta CPI_{t-j} + \sum_{kj=0} a_{35} j \Delta CPI_{t-j} + \sum_{kj=0} a_{36} j \Delta CPI_{t-j} + \sum_{kj=0} a_{37} j \Delta CPI_{t-j} + \sum_{kj=0} a_{38} j \Delta CPI_{t-j} + \sum_{kj=0} a_{39} j \Delta CPI_{t-j} + \sum_{kj=0} a_{40} j \Delta CPI_{t-j} + \sum_{kj=0} a_{41} j \Delta CPI_{t-j} + \sum_{kj=0} a_{42} j \Delta CPI_{t-j} + \sum_{kj=0} a_{43} j \Delta CPI_{t-j} + \sum_{kj=0} a_{44} j \Delta CPI_{t-j} + \sum_{kj=0} a_{45} j \Delta CPI_{t-j} + \sum_{kj=0} a_{46} j \Delta CPI_{t-j} + \sum_{kj=0} a_{47} j \Delta CPI_{t-j} + \sum_{kj=0} a_{48} j \Delta CPI_{t-j} + \sum_{kj=0} a_{49} j \Delta CPI_{t-j} + \sum_{kj=0} a_{50} j \Delta CPI_{t-j} + \sum_{kj=0} a_{51} j \Delta CPI_{t-j} + \sum_{kj=0} a_{52} j \Delta CPI_{t-j} + \sum_{kj=0} a_{53} j \Delta CPI_{t-j} + \sum_{kj=0} a_{54} j \Delta CPI_{t-j} + \sum_{kj=0} a_{55} j \Delta CPI_{t-j} + \sum_{kj=0} a_{56} j \Delta CPI_{t-j} + \sum_{kj=0} a_{57} j \Delta CPI_{t-j} + \sum_{kj=0} a_{58} j \Delta CPI_{t-j} + \sum_{kj=0} a_{59} j \Delta CPI_{t-j} + \sum_{kj=0} a_{60} j \Delta CPI_{t-j} + \sum_{kj=0} a_{61} j \Delta CPI_{t-j} + \sum_{kj=0} a_{62} j \Delta CPI_{t-j} + \sum_{kj=0} a_{63} j \Delta CPI_{t-j} + \sum_{kj=0} a_{64} j \Delta CPI_{t-j} + \sum_{kj=0} a_{65} j \Delta CPI_{t-j} + \sum_{kj=0} a_{66} j \Delta CPI_{t-j} + \sum_{kj=0} a_{67} j \Delta CPI_{t-j} + \sum_{kj=0} a_{68} j \Delta CPI_{t-j} + \sum_{kj=0} a_{69} j \Delta CPI_{t-j} + \sum_{kj=0} a_{70} j \Delta CPI_{t-j} + \sum_{kj=0} a_{71} j \Delta CPI_{t-j} + \sum_{kj=0} a_{72} j \Delta CPI_{t-j} + \sum_{kj=0} a_{73} j \Delta CPI_{t-j} + \sum_{kj=0} a_{74} j \Delta CPI_{t-j} + \sum_{kj=0} a_{75} j \Delta CPI_{t-j} + \sum_{kj=0} a_{76} j \Delta CPI_{t-j} + \sum_{kj=0} a_{77} j \Delta CPI_{t-j} + \sum_{kj=0} a_{78} j \Delta CPI_{t-j} + \sum_{kj=0} a_{79} j \Delta CPI_{t-j} + \sum_{kj=0} a_{80} j \Delta CPI_{t-j} + \sum_{kj=0} a_{81} j \Delta CPI_{t-j} + \sum_{kj=0} a_{82} j \Delta CPI_{t-j} + \sum_{kj=0} a_{83} j \Delta CPI_{t-j} + \sum_{kj=0} a_{84} j \Delta CPI_{t-j} + \sum_{kj=0} a_{85} j \Delta CPI_{t-j} + \sum_{kj=0} a_{86} j \Delta CPI_{t-j} + \sum_{kj=0} a_{87} j \Delta CPI_{t-j} + \sum_{kj=0} a_{88} j \Delta CPI_{t-j} + \sum_{kj=0} a_{89} j \Delta CPI_{t-j} + \sum_{kj=0} a_{90} j \Delta CPI_{t-j} + \sum_{kj=0} a_{91} j \Delta CPI_{t-j} + \sum_{kj=0} a_{92} j \Delta CPI_{t-j} + \sum_{kj=0} a_{93} j \Delta CPI_{t-j} + \sum_{kj=0} a_{94} j \Delta CPI_{t-j} + \sum_{kj=0} a_{95} j \Delta CPI_{t-j} + \sum_{kj=0} a_{96} j \Delta CPI_{t-j} + \sum_{kj=0} a_{97} j \Delta CPI_{t-j} + \sum_{kj=0} a_{98} j \Delta CPI_{t-j} + \sum_{kj=0} a_{99} j \Delta CPI_{t-j} + \sum_{kj=0} a_{100} j \Delta CPI_{t-j} + \mu_t$$

### 5. Descriptive Analysis

The descriptive analysis is used to check the normality of the data. In this analysis we used the mean, median, maximum, minimum JB value, and the probability value for the normality of the data.



*Table 2: Descriptive Analysis*

Variables	Mean	Skewness	Kurtosis	JB	Prob.
GDP	9.7039	0.769041	3.5567	4.5709	0.1017
FDI	0.8153	2.0746	6.9046	55.4577	0.0000
INF	9.2469	1.5332	6.0218	31.6646	0.0000
M2	42.1277	0.0661	2.4521	0.5425	0.7624
ER	38.6748	0.6892	2.2752	4.1437	0.1259
CPI	-424.15	0.3939	2.5685	1.3785	0.5019
TR	15.2621	0.8373	2.5158	5.1922	0.0745
PI	6.7231	1.3950	4.0526	15.1910	0.0005

*Values calculated from the E-view 9.5*

Table showed that all variables are positively skewed. Gross domestic product, money supply, exchange rate, consumer price index are normally distributed and foreign direct investment, inflation rate, total reserves, price indices are not normally distributed. Table also shows that GDP, FDI, INF PI are lapto kustic and other variables are messo kurtic.

*Table 3: Correlation among Variable*

Variable	GDP	FDI	INF	M2	ER	CPI	TR	P I
GDP	1.0000							
FDI	0.2788	1.0000						
INF	0.0073	-0.4468	1.0000					
M2	-0.3721	-0.4496	0.5171	1.0000				
ER	0.7821	0.6887	-0.1776	-0.3136	1.000			
CPI	-0.1988	-0.6306	0.4279	0.1688	-0.6475	1.000		
TR	0.5207	0.0929	0.1225	-0.3362	0.3428	-0.0678	1.00	
PI	0.1447	-0.2591	0.5282	0.2271	0.0447	0.5652	-0.0345	1

*Source: Authors calculation from the E-views 9.5*

In this table we explain the correlation between the variables. We have already proved that all the variables are stationary. In this table the degree of association between the variables is explained. The results are explained in the table where the GDP is positively related to the FDI and the value is 0.2788 shows that there is no multi carnality between the variables. The correlation between the GDP and the INF is positive and the value is 0.00739 showing that there is no multi correlation between the variables. The correlation between the GDP and M2 is -0.37218 showing that there is negatively

related to the GDP and the values show the absence of the multi collinearity. The value of the correlation between the ER and the GDP is indicating that there is no multi co linearity and GDP and ER are positively related. The correlation between the GDP and the TR are 0.52077 indicating that there is no multi co linearity and the GDP AND TR are positively related. The GDP and PI are positively related and the value indicating that there is no multi co linearity. The 1% change in the GDP can cause the PI to be change 0.14%. Similarly 1% increase the GDP decrease the money supply by 0.37%. The PI and FDI are negatively correlated and the value indicating that there is no multi co linearity between the PI and FDI. The value is -0.259. The TR and FDI are positively related and the value indicating that there is no multi-collinearity between the TR and FDI. The exchange rate and FDI are negatively related showing that there is no multi co linearity between the FDI and CPI. M2 and FDI are negatively related and the correlation value is -0.4496. INF and FDI are negatively related showing that there is no multi-collinearity and the value is -0.4468. INF and M2 is positively related and the value is 0.51712. PI and TR are negatively related and the value is -0.034593 indicating that there is no multi-collinearity.

### 5.1. Time Series Analysis

Time series analysis is used to check the Stationarity of the data by using time series data. In this analysis we used the ADF techniques to check the stationary of the variable and the ARDL is used to check the long run relationship between the variable.

### 5.2. Augmented Dicky Fuller Test for Unit root

The ADF test is used to check the Stationarity of the variables. If the spurious regression is present in the coefficients then we use the ADDF test to remove the spurious problem. This test is developed by the dicky fuller.

Table 4: Augmented Dicky Foller (ADF)

Variable	Level			1st difference			Conclusion
	Intercept	T&I	NONE	Intercept	T&I	NONE	
GDP	-5.096**	-5.0157	-3.6186	-	-	-	I(0)
FDI	1.9245	-5.4021**	3.6328	-	-	-	I(0)
INF	-4.6524**	-4.4960	-2.6190	-	-	-	I(0)
M2	-	-	-	-5.9695**	-6.0749	-6.0289	I(1)
ER	-	-	-	-1.1435	-6.3940**	-	I(1)
CPI	-	-	-	-7.5042**	-7.4358	-7.3981	I(1)
TR	-	-	-	-6.2813	-6.1901**	-6.3554	I(1)
PI	-	-	-	-10.3502**	-7.5720	-10.371	I(1)

Source: Authors calculations (\*, \*\*, \*\*\* means the stationary at 1%, 5% and 10%)

In this analysis we used the ADF test to check the Stationarity of the variables. In this paper we used the GDP as the dependent variable and the EXR, FDI, INF, PI, TR, CPI are used the independent variables. Form the table we come to know that the GDP, FDI and the INF are the stationary at the level while the remaining variables such as the, INF, PI, TR, and M2 are stationary at the first difference. We check the stationary on the basic of the t statistics and the probability value. When the probability value is less than 0.05% then the variable is stationary and the stationary of the variable is proved.

Table 5: Leg

$R^2$	Akaike	SEHWAZ	HANNAN	D&W
0.998714	1.321136	2.183024	1.927789	2.102208
0.998824	1.383086	2.340929	1.720771	2.381721
0.9971770	1.999319	2.747092	2.260312	2.051542

Source: Calculated form the E-VIEW 9.5.

In this table we have to use the auto regressive distribution lag which shows the different lags in which set the criteria of akaike and the value of r square, banana, schwas and the Durban Watson are given. These are the two steps of the ARDL in which first of all we check the long run association with the help of bound test. We make the null and alternative hypothesis the null hypothesis is that there is no presence of long run association while the alternative hypothesis is that there is presence of the bound test.

H0: there is no long run association.

H1: there is long run association.

Table 6: Bound test for Co- integration

F STAT	3.978866	
CRITICAL BOND VAUE	LCB	UCB
10%	1.92	2.89
5%	2.17	3.21

Source: critical value is taken from e views 9.5

The table of the bound test indicates that there is a long run association and we reject the null hypothesis and accept the alternative hypothesis.

Table 7: Diagnostic Test

TEST STAT		
SERIAL CORRELATION	LAGRANGE MULTIPLIER TEST	0.2267(.7995)*
NORMALITY	Ramsey's RESET test	0.4400(.0.8024)
HETROSCEDASTICITY	Based on the values of test of skewness and kurtosis	0.590357(.8543)*

FUNCTIONAL FORM	Based on the value of regression of squared residuals.	2.6859(.0969)*
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Values calculated from the E-VIEW 9.5

The result of the diagnosis test shows the there is no auto correlation, hetrosedasticity in the model. The normality test indicates that the model is normally distributed. The result of the functional form indicates that there is no error in the mode.

### 5.3. Estimates of Long Run Coefficients of Model

Table 8: long run Estimation of the Model

Variable	Co-efficient	Probability	Standard Error	t-statistics
FDI	0.5369	0.0159	0.0240	2.6468
INF	-0.000	0.9938	0.0397	-0.0078
M2	-0.143	0.0019	0.0398	-3.6014
ER	0.2896	0.000	0.0136	21.2258
CPI	1.9003	0.000	0.0688	27.586
TR	-0.5273	0.000	0.0322	-16.3365
PI	-0.3883	0.000	0.0240	-16.1357
C	821.25	0.000	29.449	27.8867

Source: table of long run calculated from the e views 9.5

The table shows the long run integration of the model. In this model the dependent variable is the GDP and the EXR is positively related to that of the GDP and pob value shows that it is significant. When the exchange rate is increased then the GDP of the economy is increased and the economic growth is increased. This finding is confirmed with the finding of the Attaché Oberg (2013), Patrick Emu (2013) and OPOKU (2013). They explain the linear relationship between the EXR and GDP.

The FDI is significant and also positively correlated with the GDP. As the foreign investment is increased the foreign earning is increased and the GDP of the economy is also increased with the same trend 0.53 percent increase in the FDI also increases the GDP. The finding of LIM GUECHEANG (2013) and PSHLAJMOOLIO (2013) also match with our findings. There is a positive relationship between the FDI and GDP. The inflation is insignificant and negatively related to the GDP as the inflation in economy is increased which badly affected the Economic growth of the economy. Our finding is confirmed with the findings of (Hashmi et al., 2011; Senhadji, 2000). They explain that there is negative relationship between the INF and the GDP. As the 1% increases in the government expenditure, it causes the M2 to decrease the 0.14% and the inflation is decreased by the 0.0003%.

Table 9: short run coefficient estimation

Variable	Co-efficient	Probability	Error	t-statistic
$\Delta$ GDP(-4)	0.0224	0.0368	0.00999	2.2456
$\Delta$ (FDI)	0.2241	0.3411	0.2295	0.9765
$\Delta$ (INF)	-0.0443	0.1512	0.0296	-1.495
$\Delta$ (M2)	-0.3142	0.000	-7.6572	-7.657
$\Delta$ D(ER)	0.1413	0.0009	0.0360	3.923
$\Delta$ D(CPI)	2.1381	0.000	62.190	62.190
$\Delta$ D(TR)	-0.5944	0.000	-28.818	-28.183
$\Delta$ D(PI)	-0.4257	0.000	0.014	-29.119
Coint.Eq(-1)	-0.9266	0.000	0.1653	-5.6036

The process of the short term coefficient is completed with the co-integration. Its range lies between the 0 and -1. The correlation between the period t and the period t-1 is the error which is explained by the correlation. The value of ECM is 0.92 and is significant. It indicated that the variation in the GDP from the equilibrium level in the current period is adjusted by the 92.66% in the next year. The remaining variables such as D(INF), D(PI), D(M2) and the D(ER) have the same results as in the long run co integration. DINF and DPI are negatively related to the GDP and is insignificant. DFDI shows the positive relationship and significant with the GDP in the short run. As the 1% increase in the government expenditure on the Monterey policies then the inflation is covered by the 0.41%.

#### 5.4. Stability Test

The stability test of the short run and the long run is explained with the help of the stability test such as the CUSUM test and CUSUM square test. In the CUSUM test the blue lines must be in between the two re lines show the correctness and stability of the test.

#### Cusum Test:

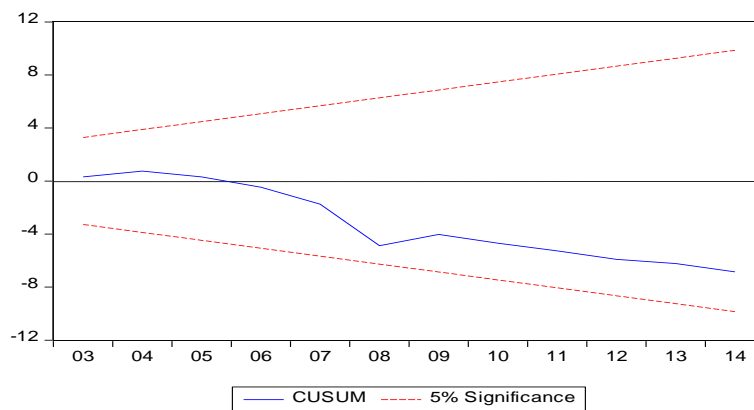


Figure 2: Plot of CUSUM of Residual test

**CUSUMSEQUIRE TEST:**

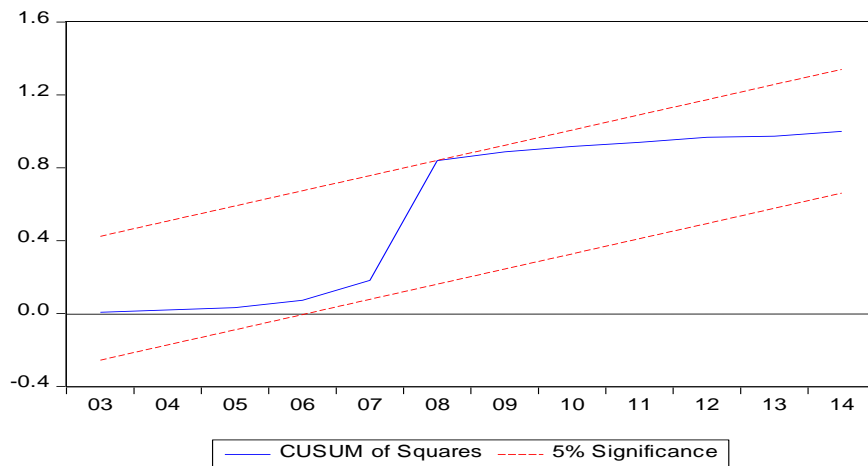


Figure 3: Plot of CUSUM of SQUARE of Residual test

**6. Conclusion**

In this analysis we have to investigate the capital flow and the money supply: and the degree of sterilization in Pakistan. The basic objective of this study is to have to solve the problem of the economy which is rising by the greater supply of the money. In this paper we have to use the secondary data ranging from the 1974 to 2014. The variables are Gross domestic product, inflation, price indices, money supply, foreign direct investment, consumer price index and the total reserves used in this paper. The techniques which are used to prove the model area the descriptive analysis, correlation test, ADF and ARDL test used to check the stationary of the variables. All the variables are stationary some are stationary at level and the some at stationary at 1st difference. The ADRL model indicates that there is a long run association between the variables. The auto regressive model explains that the M2, Pi and INF are negatively related with the GDP and the other variables area positively related to the GDP. The correlation value of the EXR rate is -0.9988 showing that if the exchange rate is decreased then the GDP is also affected and the economy growth is also affected by this change. It is suggested that the monetary policy should be improved to increase the exchange rate and then economy growth trend is increased. The descriptive analysis is indicating that all the variables are normally distributed. Some are the leptokurtic and the some area the mesa kurtosis.

We used the Freidman model of money supply which explains the relationship of the money supply, output and the inflation. Our finding is confirmed with the Friedman model indicating that when the inflation is increased then the economy is badly affected by the inflation and the output is affected. The finding of this study is that there is high correlation between the money supply, inflation and EXR.

## 7. Policy Recommendation

The government should improve the monetary policy. In this way there is no more inflation in economy. Government should increase the expenditure on the foreign direct investment in this way the foreign earning is increased and the economy growth is increasing. With the help OS the foreign direct investment the employment of the host country is also to be increased.

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## Wholistic Management Education (WME): Theorizing the Contextualized Applicability of Transformative Learning in Management Education Discourse

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### Abstract

Traditional management education discourse is in crisis. It does not prepare students to face real world complexities and challenges because it is devoid of context and historicity and localness. It focuses narrowly on the means and not ends of managing and organizing. To address these glaring and gaping fissures between concepts and reality. This paper utilizes Mezirow's theory of transformative learning approach in management education so that the future managers are on course for individual transformation. Later developments in the transformative learning theory connecting it with extra-rational thinking, multiple ways of knowing and critically evaluating social dynamics are also incorporated so that the individual transformation leads to more broader collective transformation. The discursive interplay between texts, actions and discourses are captured in the proposed Wholistic Management Education (WME) model. The model's validity and its relation with Discourse Analysis and Critical Discourse Analysis are briefly discussed along with future research directions.

**Keywords:** Transformative Learning, Management Education, Wholistic Management Education, Discourse Analysis, Critical Discourse Analysis, Critical Reflection.

### 1. Introduction

The objectivist positivistic paradigm of learning (Bredo & Feinberg, 1982) is an outcome of the Western rational tradition. According to this tradition reality exists independently, knowledge is objective, knowledge standards are fixed and language merely acts as a conduit for conveying knowledge (Mezirow, 1996). The validity of this type of knowledge is established through empirical data analysis and hypothesis testing. This type of learning which (Habermas, 1978, 1984) described as instrumental learning is concerned with controlling and manipulating environment, improving prediction and performance, assessment of truth claims, and formal subject-wise education. Its underlying logic and rational is hypothetical-deductive while its methodology is strictly positivistic and empirical (Mezirow, 1994, 2000a, 2003).

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Seven management researchers who have published in top tier academic management journals including *Academy of Management Review* were interviewed to find out the sources of their research ideas (Byron & Thatcher, 2016). The study revealed multiple sources. However direct observations and attempting to solve real-world business issues were at the bottom of the list of such sources. This implies that real life management practices rarely fuel academic management research. This gap between management theories and practices Sandberg and Tsoukas (2011) is attributed to the above highlighted objectivistic onto-epistemic assumptions underlying academic management education discourse. The real life practice of management is far more fuzzy and entangled with humans, objects, technology, systems, processes and environment. The socio material entanglement Carlile, Nicolini, Langley, and Tsoukas (2013) of real world organizational problems separates them from the sterile management journal articles and texts which stress rigor of methodology over applicability of knowledge produced.

Western civilization's ascendancy since 19<sup>th</sup> century in politics, economics, military power and scientific and technological endeavors is no secret. Throughout most of the post-Enlightenment period the rest of the world, especially the Asian cultures imported Western practices and ideas to give legitimacy to their own discourses of various natures. Education was no exception to this general rule (Liu, 2011). That is why international education is largely dominated by a US led cartel of a few countries such as UK, France, Australia, Germany and Canada. The cartel supports globalization of education because it has and is expected to continue to open up a huge upsurge in demand of their education by foreign students. The number of international students in US has swelled to 3.7 million from about 1 million over the last about 4 decades. Despite a strong competition developing in some South and North Eastern countries the international pecking order in higher education is expected to hold in the coming decades.

Joullié (2016), explores the philosophical roots of the above mentioned dominance of Western thought in management education discourse. His research shows that with the exception of *Art of War* by Sun Tzu, Eastern philosophy and thought has little influence on management education. He identifies six main Western philosophic themes which have found their way in the global management education discourse (Joullié & Spillane, 2015):

1. Heroism (Power, rewards, rules, MBO, performance appraisal systems)
2. Rationalism (Universality of management, reason based planning, analysis)
3. Positivism (Value-neutral research and knowledge, inductive theories, determinism, objectivity evidence-based-management)
4. Romanticism (Passion, innovation, creativity, subjectivity, will, entrepreneurship)

5. Existentialism (Freedom, accepting responsibility for own actions, decision making)
6. Postmodernism (Virtual more than real, knowledge constructed socially, narratives, multiculturalism, linguistic deconstruction)

The above discussion places business education in the objectivist traditional paradigm of teaching which draws from instrumental ways of learning. It also highlights why business education's curricula are more or less the same across the globe (Agasisti & Johnes, 2015; Mintzberg, 2004). The contemporary educationists Gardner and Kelly (2008) believe that traditional management education is not delivering (Ghoshal, 2005; Mintzberg, 2004; Slater & Dixon-Fowler, 2010). It is this 'crisis of pedagogy' which is responsible for letting the students to miss learning from complex and ambiguous situations (Nicolaidis, 2015). Scholars seem to agree that universality of management theories (Arum & Roksa, 2011; Pfeffer, 2013; Willmott, 2013), their too much market oriented focus (Bennis & O'Toole, 2005) and their short-term 'unwise' profit motive (Baden & Higgs, 2015) is causing financial crises and, rising number of corporate scandals in society. In fact most of the business leaders involved in these scandals had MBA from top tiered business schools (Coryell, 2013). Some of the most prominent management education scholars call for 'creative destruction' of business schools and their 'scientific' (Mintzberg, 2004) teaching practices (Pettigrew & Starkey, 2016). Business schools are therefore under pressure to transform their teaching discourses (Isopahkala-Bouret, 2015; Parker & Guthrie, 2010) so that their products or students are also transformed to face the challenges of real life.

The above mentioned deficiencies of traditional management education along with "a documented gap between the skills needed for many business and management careers and those acquired during a student's academic career" Ungaretti, Thompson, Miller, and Peterson (2015) in business schools are main drivers asking business school education to undergo transformation. Transformative learning is a well-respected theory of adult education (Mezirow & Taylor, 2011) but the application of its various developments in the context of management education is not much researched especially outside the North American context. The prime purpose of this paper is to conceptualize a theoretical framework in the form of a model based on cutting edge transformative learning theory development under the fold of management education in different contexts. The main output of this paper is therefore, a Wholistic Management Model (WME) model of teaching suggested to be employed by management education imparting institutions.

One of the ways to define wholeness in management education is what Baden and Higgs (2015) term as wisdom. According to them the essence of wisdom lies in clearly prioritizing ends (societal benefits and social well-being) over means (instrumental monetary goals and objectives). Failure to base organizational frameworks and

management education curricula (and ultimately organizational practices) on this prioritization is what accounts for lack of wisdom in business education. In their notion of wisdom in management education (Baden & Higgs, 2015) envisage an inextricable relationship between individual, society, culture and environment and focus on the long term societal and ecological benefits over the short term material gains only.

The wholeness of management education can also be related with (Kagan, 2007) p. 245-247) presentation of two types of scientists through the metaphors of ‘hunters’ and ‘butterfly chasers’. Hunters represent the physicists, chemists and mathematicians. They have little tolerance for ambiguity but great affinity for facts, proving hypothesis and building reliable relations. The butterfly chasers are historians and humanities specialists who like to pursue fuzzy and uncertain questions and are comfortable with ambiguity. Kagan places social scientists close to the butterfly chasers while biologists stand next to the hunters. He however laments that “sadly, the hunters with rifles are driving the children chasing butterflies from the forest (of knowledge and learning), even though rifles are not a very good way to catch butterflies”.

This paper has five sections. Section 1 has already presented major scholarly critique on management education and has also highlighted the need for a transformative learning based wholistic management education or WME. Section 2 briefly surveys the literature on transformative learning covering its Mezirowian and non-Mezirowian shades and in doing so constructs 5 sub-discourses of transformative education (TME) under the main discourse of management education. Section 3 is devoted to construction of the WME model. It is here that the 5 sub-discourses constructed in Section 2 are linked with each other as antecedents to the processes and outcomes of the model which are interactively embedded in localness and Contextuality (organizations, society, culture and environment). Section 4 briefly describes the methodology employed in this paper and discusses how Discourse Analysis and Critical Discourse Analysis construct and analyse Section 1 and 2. Section 5 briefly discusses the validity of WME model in the spirit of its contextualized applicability in management education along with future research directions.

## **2. Literature Review**

The main critique on management education discussed in the previous section clearly merits transformation of contemporary ways of imparting management education in terms of developing ‘wise’ managers who not only focus on financial returns but also on the longer term and larger objectives and contexts in which they are embedded. The contexts comprise organizations, society, culture and environment. This section therefore, explores the developments and evolution of Mezirow’s transformative learning theory over the last 4 decades. These developments are presented as various transformative management education (TME) ‘levels’. It is the connectivity among

these levels with one another and the immediate and distant context which lies at the heart of WME model proposed later.

### **2.1. Transformative Learning**

Over the past four decades transformative learning has moved from a mere theory to emerge as a concrete paradigm in higher education (Mezirow, 1989, 1991, 1997, 2003; Mezirow & Marsick, 1978). This development has however not occurred in the field of business education but mainly in the areas of healthcare education and arts related fields (Coryell, 2013; Jarvis & Burr, 2011; Morris & Faulk, 2012).

The ‘first wave’ theories of transformative learning represent points of departure from Mezirow’s theory by developing the spiritual, emotional, relational and contextual perspective in it’s purely rationality orientation. The ‘second wave’ of theory development seeks to integrate the rational with extra-rational to formulate a “more wholistic perspective” (Gunnlaugson, 2008) of transformative learning theory.

Covering a period of 20 years, (Taylor, 1997; E. W. Taylor, 2007) has undertaken two meta-analysis reviews of transformative learning literature. He finds transformative learning to be a “popular area of research in the field of adult education” as indicated by notable increase in the number of publications and bi-annual international conferences in the area. Transformative learning till present time is not empirically studied outside of North American educational context (Fisher-Yoshida, Geller, & Schapiro, 2009). The relation of transformative learning with social entrepreneurial skills (Plaskoff, 2012), design of some MBA courses (Hoover, Giambatista, Sorenson, & Bommer, 2010; Mayo, Kakarika, Pastor, & Brutus, 2012) and cross cultural management education (Szkudlarek, McNett, Romani, & Lane, 2013) is emerging through some individual studies. There are a few generalized and sporadic studies connecting spirituality with transformative learning (Lawrence, Taylor, & Cranton, 2012; Newman, 2012) but exploration of its possible connection with specific spiritual knowledge grounded in religiosity is not studied extensively. This probably explains why some scholars like (Tisdell, 2012) feel that big questions such as meaning of life, universe and, love and death are still ignored in transformative learning research.

A six year review (2002-2007) of the top four ranked Management Learning & Education (MLE) journals by (Rynes & Brown, 2011) shows that they are increasingly publishing articles making the contention that “good teaching is no longer good enough” for contemporary societal needs. The MLE journals call for transformation of teaching so that the voids created by traditional teaching paradigm are filled (Currie & Pandher, 2013).

At the heart of Mezirow’s transformation theory lays the self-reflective discourse where individuals engage in active dialogue with self and others for better understanding of the meaning of an experience. He also identifies that values like equality, social justice, tolerance, freedom of expression and rationality are

prerequisite for engaging in a reflective discourse undertaken for understanding meanings (Mezirow, 2000b). This implicitly implies that transformative learning is better suited for more advanced and developed societies where democratic norms underpin the educational, legal, moral and political societal discourse. (Mezirow, 2000b) acknowledges that free and full participation in the reflective discourse would not be possible in homeless, hungry, destitute, threatened, frightened and sick adults. Mezirow however sees this as an opportunity for transformative learning to create and foster social justice in less developed and non-democratic societies.

The inclusion of learning context and situation in the process-focused Mezirow's theory is another development which has occurred since the last decade and a half (Mezirow, 2006). Others have also identified implicit restriction on Mezirow's transformative learning process imposed by oppressive elements of a capitalistic society. They argue that by ignoring analysis of hegemonic and power assumptions critical reflection becomes merely apolitical reflection without the ability to transform individuals and society (Brookfield & Mezirow, 2000). Transformative learning focuses not only on the cognitive but also the emotional and social aspects in which the cognitive self is embedded (Kegan, 2009). In the quest to understand what actually transforms when transformative learning takes place, scholars such as (Illeris, 2014) define it as a learning which "comprises all learning that implies changes in the identity of the learner".

The following four overlapping but distinct streams or what (Cranton & Carusetta, 2004) calls four lenses or perspectives in the evolution of transformative learning theory and practice are identified from the above discussion.

The first approach is Mezirow's cognitive/rational perspective where transformation through rational critical reflection happens as a ten-step process starting from a 'disorienting' experience and culminating in transformation of a set of uncritically assimilated assumptions of one's beliefs (Mezirow, 1985, 1989, 1991, 2006). The second view is the extra rational/deep psychology perspective emphasizing the imaginal, spiritual, emotive, symbolic, and art-based sides of learning (Dirkx, 1998; Lawrence et al., 2012; Tisdell, 2000). At the heart of this perspective lie the integration of subconscious images and symbols with consciousness. The third approach is the structural developmental perspective which defines transformation as a structural shift in the epistemologies used for learning. Transformation occurs by recognizing the limitations of previous epistemology or meaning making ways (Daloz, 2012; Kegan, 2009).

The first three approaches are concerned with psychological development of the individual (Stevens-Long, Schapiro, & McClintock, 2012). The fourth approach is the social emancipatory perspective underpinned by (Freire, 1970) based social critique attacking oppression and taking social action in the backdrop of transformative learning (Brookfield & Mezirow, 2000). This approach targets social transformation.

It is in this context that “I” and “We” are brought together in the understanding of transformative learning at individual and social levels. It is this perspective which sharply differentiates between reflection and critical reflection. This context remains loyal to the Critical Social Theory of Frankfurt School and considers critical reflection as a critique on the ideology of capitalism and its hegemonic assumptions (Brookfield & Mezirow, 2000). Transformative learning as a whole person learning would entail changes in the first three individual transformation perspectives described above. The fourth level perspective change is geared toward social rather than individual level.

## **2.2. Contextuality**

Rationality, the mainstay of Mezirow’s transformation theory is a typical Western concept based on the Cartesian Dualism assuming the split between mind and matter. The individualism resulting from Newtonian and Darwinian science whereby human beings are an accidental by-product of some uncontrolled evolutionary process leaves no role for humans in the bigger questions pertaining to his/her purpose and place in the overall scheme of things. This philosophic and scientific thought revolution of 17<sup>th</sup> century is considered to have “wrenched human beings from their familiar social and religious context (and) thrust (them) headlong into the ‘I-centered culture’” (Zohar, 1990).

However, studies like (Kokkos, 2014; Merriam & Mohamad, 2000; Merriam & Ntseane, 2008) highlight the impact of difference in discourse of language, culture, history, religion and politics as determinant of variance in the learning processes within different contexts.

The traditional management education paradigm is what (Caza & Brower, 2015) call the ‘formal curricula’ based education. For them the informal curricula which consists of all elements of a business school/learning environment that are not considered part of the declared curricula are, however, equally important. The elements of informal curricula include but are not limited to guest speakers, free or discounted subscription of business newspapers, magazines and journals and, presence of a student job placement center. Not unlike (Cranton & Carusetta, 2004), they also advocate integrating the features of formal and informal curricula to bring about transformation through management education. Table 1 captures the main differences between formal and informal curricula.

*Table 1: Some Features of Formal and Informal Curricula*

Features	Formal Curricula	Informal Curricula
Ownership	With faculty and education administrators	With students
Nature	Standardized, stated, explicit and assessable activities	Non-standardized, non-stated, implicit and non-assessed activities
Visibility	Visible in the form of lectures, course outlines, grades, diplomas, degrees, internships. Essential to attend	Invisible and informal activities where attendance is not essential and compulsory
Objectives	Explicit in the form of technical skills building	Implicit experiences which are accumulated over and above the formal curricula
Results	Building of standardized academic/technical skills	Comprises of idiosyncratic and unique student experiences

### 2.3. From Transformative to Whole Person Learning

Efforts to formulate a unified theory of transformative learning are still in progress. Scholars feel that the endeavour is fraught with many constraints and difficulties. One such constraint is the tendency to think in dualist modes despite a plethora of theoretical perspectives on transformation. It is because of dualism inherent in scholarly thinking that transformative learning is looked upon in either/or ways: a focus on rationality or extra rationality, individual or collective learning, organizational or societal learning, autonomous or relational learning, universal or contextual learning. The real challenge lies in understanding that many of these multiple perspectives may not be mutually exclusive but can coexist and change under different contexts and circumstances (Taylor & Cranton, 2012). The collapsing of dualism would pave way for transformative learning to assume the stature of wholistic learning because it would entail the imparting of “cognitive, emotional, and social skills” or what (Barbera, Bernhard, Nacht, & McCann, 2015) call the whole-person learning. Scholars like (O’Sullivan, Taylor, & Cranton, 2012) feel that a leap from traditional to transformative education is a major challenge confronting 21st century universities. For him transformative education would cause “a deep structural shift in the basic premise of our thoughts, feelings, and actions” (p. 175).

Putting the above definition of transformative education in the context of management education formulates the construct which this paper terms ‘transformative management education’ (TME). TME would inculcate deep structural shift in the basic premises of thoughts, feelings, and actions so that understanding about self and context and relation with self and others is seen in new ways. It would connect management students with



their own selves, others, social and natural environments and also empowering them to understand hegemonic power relations underpinning issues of class, race, and gender. This level of transformation unlocks the minds to envision alternative ways of living and to feel responsible for long term societal challenges.

Four perspectives of transformative learning have already been discussed. Table 2 summarizes Stevens-Long, (Stevens-Long et al., 2012) extension of that discussion into four perspectives or levels of transformative education.

Table 2: Four Levels of TME

TME Level	Major Proponents	Transformative Learning Inducing Pedagogical Practices & Interventions
TME Level 1 (cognitive/rational perspective)	Mezirow & Cranton	Ways of fostering critical reflection Dialogues on past experiences Intentional introduction of a disorienting dilemma Guided intrapersonal dialogue with subconscious
TME Level 2 (Extra-rational/deep psychology perspective)	Dirkx, Tisdell	Group activities leading to exploration of subconscious Activities encouraging integration of conscious and subconscious through art, symbol, images and imagination Activities encouraging knowing through different epistemologies
TME Level 3 (Structural developmental perspective)	Kegan, Daloz	Connected and separate knowing activities under a right mix of challenge and affirmation by the faculty
TME Level 4 (Social emancipatory perspective)	Frier, Brookfield	Critical pedagogy Feminist view point Constructivism

The wholeness debate is gaining momentum in industrialized Western countries which are witnessing the emerging neo-spiritual or post-secular age. Many scholars like (C. Taylor, 2007) believe that objectivism's hold on sciences and philosophy is slipping towards a 'subjective turn' – shift from external to internally-guided life. The main objective of WME model presented in the following section is not merely shifting the

focus of management education from external/objective paradigms towards internal/subjective paradigm but to fuse the two with one another and the context in such a way that ‘whole person’ managers are produced in business schools.

### 3. The Wholistic Management Education (WME) Model

The WME model (Figure 1) combines the traditional objectivistic (termed as Level Zero), rational based Mezirow’s transformative learning theory and, its key other developments into one ‘whole’ model. Inculcating extra-rationality and learning from multiple ways of knowing are therefore envisaged to be imparted to management students as crucial skills along with their ability to be analytical. Critical reflection on one’s own taken for granted assumptions about reality is the mainstay of Mezirow’s theory. But critically reflecting and challenging the social status quo is typically a late development in the theory and forms an integral part of WME model because it equips management students to challenge and problematize the issues of power, dominance and imbalance in the organizational and societal discourses with which they seem unconnected by the one-sided traditional management education. The model fully takes into account the organizational, societal and cultural norms of different contexts and is therefore not prescriptive in nature. It has the flexibility to be applied equally successfully in Western, Eastern or other contexts because it does not prescribe and promote a particular way of value system and ethicality.

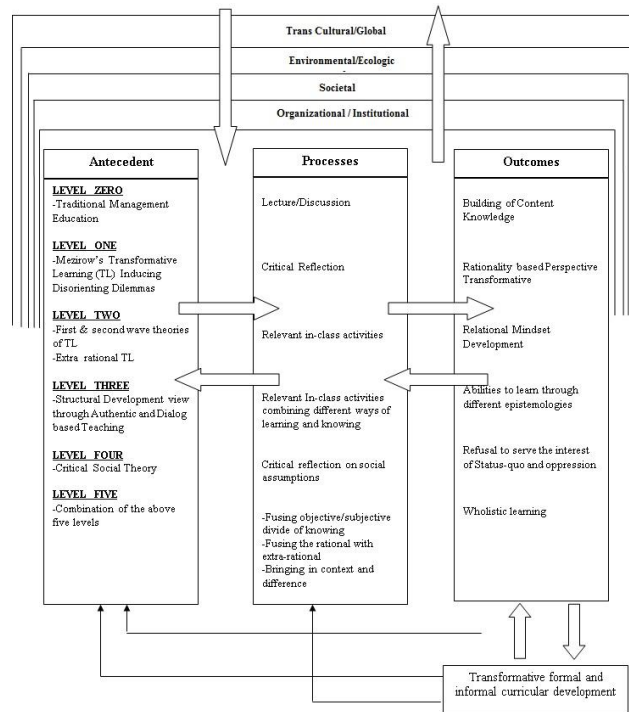


Figure 1: Wholistic Management Education Model

The horizontal arrows connect the model antecedents with processes (pedagogical) and outcomes. At the same time like other discourses the outcomes are not only shaped by processes and antecedents but also co-create and sustain the antecedents. These horizontal discursive interactions do not happen in isolation but are embedded in a particular localness and context which again shapes and gets shaped by the horizontal discursive patterns of management education discourse emerging in a particular business school. The vertical and horizontal discursiveness embedded in the model has the potential to generate different management education discourses for different contexts and thus freeing management education from value-neutral universality discussed in the first two sections.

The levels of WME model progresses from a lower to higher order learning as they are traced vertically downwards. They are different because they reflect different sub-discourses of management education. Level Zero represents traditional management education while Level 1 builds on it and adds Mezirow's rationality based critical reflection (largely absent from traditional management education) to it. Similarly, the other levels move from limited to more comprehensive learning encompassing epistemologies beyond objectivism and incorporating extra-rational spirituality and ability to employ critical social theory in solving management related issues. The highest level (Level 5) is the Wholistic level because it encompasses and entails all the other levels in it.

#### **4. Methodology**

Universities are places where knowledge discourses are formed because it is here that knowledge, society and culture interact. Business schools are located at the interface of this interconnectedness (Pettigrew & Starkey, 2016) and therefore ideal institutions where management education discourse embedded in cultural, political and societal contexts is shaped. This is why Discourse is utilized as 'bridge' between the earlier sections and the following Discussion section.

Viewing management education as a discourse and business schools as institutions legitimizing and solidifying this discourse is consistent with Phillips, (Lawrence et al., 2012) widely cited work Discourse and Institutions which portrays a mutually constitutive relationship among organizational actors, different forms of texts, discourse and organizations. These relationships are envisaged to be present among faculty, students, administrators; formal and informal curricula (depicting the formal and informal texts used) and discursive patterns taking shape within the context of business schools. The following Figure 2 depicts these relationships between actions and discourse in the backdrop of management education imparting institutions. Adapted from Phillips, (Lawrence and Hardy, 2004).

Conversational such as lectures, discussions, seminars and, training sessions or written like academic journals, books and manuals. The upward diagonal arrows of the above Figure show how actions of the actors through producing various kinds and forms of texts impact the discursive patterns of a business school. Some of these texts are more durable and become embedded in the existing or new discourse. Since discourses constitute the social reality of business school, they impact and shape the actions that

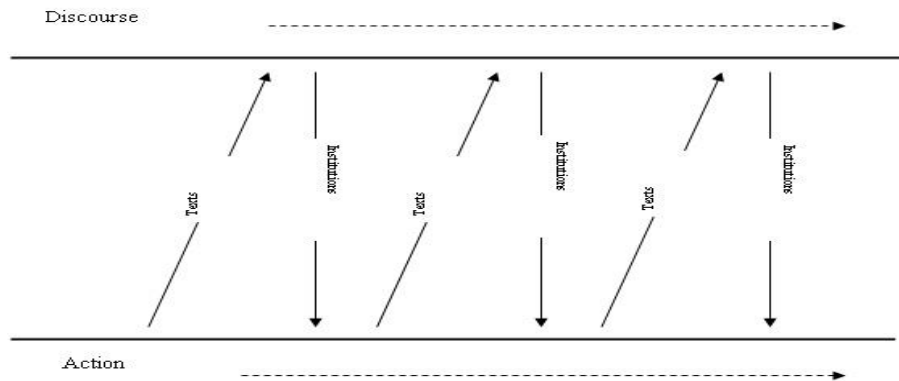


Figure 2: The relationship between Action and Discourse of a Business School

produce more and new texts. The vertical downward arrows of the above Figure show how discursive patterns affect action and in doing so create the social reality of business school as an institution.

Other discourse scholars (Fairclough, 1992; Fairclough & Wodak, 1995; Hodges, 2015; Van Dijk, 1997) identify the following key characteristics of Discourse Analysis (DA):

1. Focus on collection of bodies of texts rather than isolated and individual texts
2. The intertextuality or interwoven nature of texts and discourses and the support from broader discourse within which a particular discourse can be located
3. The audience to whom discourses are disseminated
4. The legitimacy of their production through re-contextualized social actions so that only those actions are retained in discourse which are procedural, regimented and regulated (Van Leeuwen, 2008)
5. Patterns of their reception and consumption
6. The linguistic focus and seeping in of 'ideologies' in discourses through language
7. Macro social or extra-linguistic factors of discourse such as institutional, societal and cultural practices
8. Strong interdisciplinary focus (de Melo Resende, 2013)

Critical Discourse Analysis (CDA) is DA done with a critical slant and analyses the way “social power abuse and inequality are enacted, reproduced, legitimated and resisted by text and talk in the social and political contexts” (Van Dijk, 1997). CDA dissects both micro (language use, verbal interaction) and macro (power, inequality, hegemony between different social groups) levels of social order (Fairclough & Wodak, 1995; Wodak & Meyer, 2009).

CDA also highlights how concepts are reified and legitimized and operationalized when technical jargon or dominant regulatory mechanisms hinder real representation of an entity, phenomena or concept like organizations (Barbera et al., 2015; Krzyzanowski, 2010).

## 5. Discussion

In natural sciences models serve as main tools for explicating chosen aspects of the universe for serving different objectives of scientific inquiry (Seelos, 2010). Models also play important role in social sciences by linking developing and developed theories with the observable world (Brante, 2010).

The wholistic management education (WME) model presented in this study is validated based on established criteria examining the adequacy of models. Contemporary scholars (Kaufman, 2012; Seelos, 2010; Seelos & Mair, 2007) have identified certain standards to establish analytical, theoretical and ontological validity of business and theoretical models. These standards are entailed in the following questions employed to evaluate WME model:

1. Does the model adequately explain and describe the phenomenon of wholistic management education?
2. Which theories inform this model? Do the theory/model relationships come out clearly?
3. Do the model/world relationships come out clearly?
4. Is the model aligned with research methodology of the paper?

The model describes the evolution of wholistic management education as Level 5 transformative management education. Level 1 TME tops up traditional management education (Level Zero TME) with Mezirow’s rationality based transformative learning theory. Level 2 TME builds on the previous level and incorporates first and second waves of transformative learning theory and its main stay is extra-rationality. The spiritual, mystical, linguistic and political discourses are allowed to become part of the value-neutral rational discourse of management education. Level 3 TME ensure that the learners are not exposed to one dominant way of knowing while critique on taken for granted societal and cultural assumptions is the main outcome of Level 4 TME discourse which employs critical social theory based pedagogies. The critical social theory of this Level primarily questions, challenges and problematizes assumption that

societies of Western civilization are free and democratic. It is to be noted that Level IV WME does not just expose faculty and students to yet another critical theory but to the skills which equip them to adopt a mind-set labelled 'evolving criticality' by (Kincheloe, McLaren, & Steinberg, 2011). This mind set is underpinned by inculcation of a set of fundamental assumptions which include: thoughts are historically and socially constructed and embedded by power relations mostly emanating from social relations of capitalistic consumption and production, language is crucial in creating social reality, acceptance of the oppressed of their subordinated status as natural and inevitable, focusing on multiple faces of oppression (class, gender, religion, race and more) and that dominant management educational and research discourse reproduces most forms of oppressions mentioned above.

Level 5 TME is WME which includes all the four levels of TME and combines multiple epistemologies to attain wholistic learning and, rational and extra-rational pedagogical discourses to restore the whole self which facilitates full development of students' identity.

The above brief description shows that the model explains and describes the notion of WME in a clear way.

### **5.1. The Theory/Model Relationships**

The main aim of theoretical adequacy is to focus on how theories and models are linked and which theoretical elements are incorporated in the model. Through its levels the WME model clearly identifies that it is aligned with four major perspectives of transformative learning theory. Level 5 is the highest level combining the practice of traditional management education theories with other levels. The model also connects these perspectives with class processes and outcomes and the broader contexts of society, culture and environment. The model is therefore theoretically adequate.

### **5.2. The Model/World Relationships**

The main motive of the model is to ensure that management education is not one sided but wholistic in nature. That is why the model builds its tone from Mezirow's transformative learning theory and terms it Level 1 TME and moves vertically towards Level 5. The model is an attempt to create wholeness in management education by achieving transformation at personal level. The full identity of the students is envisaged to emerge as a psychosocial reflexive process which the model captures by showing reflexive linkages between a management education imparting university, organizations, society and, the overall environment at national and transnational levels. But creating this wholeness through reflexive relations is invisible, unstated and intangible. This is what (Caza & Brower, 2015) call the informal curriculum which they consider more suitable to lead to change and transformation. WME encompasses both formal and informal curricula which are embedded in the explicit and implicit culture

of a business school which it intends to nurture. The model therefore is located very much in the real world of management education imparting business schools. Its aims and objectives however look beyond the traditional and standard utilitarian management education which seeks to produce technically skilled personnel without giving much importance to the emotional, spiritual, imaginative aspects and building a long-term focus of injecting ‘wise’ men and women in the society.

### **5.3. Model and Research Methodology**

A comparison of WME model with Figure 2 of research methodology yields interesting common points. TME Level 0 or traditional management education produces verbal and written texts which train students to take specific managerial actions when they are employed in organizations. The organizational discourse retains these actions because they are consistent with the ‘legitimate’ procedures and way of doing work in corporations. The corporate practices affect society. Over the years management education texts and organizational actions have produced specific societal actions like consumerism, over consumption and over spending and, blind acceptance and legitimization of media commercials and branding practices. These actions are retained in the society to produce a ‘corporate discourse’ which ‘legitimizes’ the actions and texts of business schools. In this way the business school, corporate and societal discourses co-create one another. This is how WME model explains and predicts discursive patterns created in society and business schools when traditional management education texts are the only ones taught and talked about at business schools.

The types of discursive organizational and societal practices and discourses are produced if texts based on TME Level 1, 2, 3 and 4 are made part of business school education are not difficult to imagine. Similarly the WME will lead to very different organizational and societal discourses and actions. The intertextuality or inextricable interwoven nature of different texts and discourses (Hodges, 2015) and discursiveness inherent in WME model aligns it very well with research methodology of DA and CDA.

### **5.4. Application of CDA**

A very brief discussion of CDA of traditional management education now follows.

The Introduction section of this paper highlights four major themes of traditional management education which are scrutinized by some of the extra-linguistic elements of CDA identified in the Methodology section. This is in accordance with the inherent historicity in discourses rendering them to interpretation in terms of references to society, culture and ideology (Wodak & Meyer, 2009).

The first theme is that management education is not based on real world’s problems. The technical jargon and concepts of management education (like strategy) are reified

to the extent that they become legitimized concepts. These operationalized concepts remove management students from the real complex and fuzzy world of business. This practice is in contrast to medical and law education (Ungaretti et al., 2015) because in their case the education does not just present factual knowledge to students but problematize it so that they solve real world problems on real world issues (patients or legal cases).

The second theme highlights the westernization of management education and its excessively value-neutral, universal and scientific orientation. This is how management education legitimizes Western societal and cultural values in non-Western cultures. The hegemony thus created is so subtle and natural that the other cultures form dialectical relations with the west to whom they look for generating texts and organizational actions and practices which become embedded in their own social discourses.

The third major theme is that of ‘unwise’ and too much short term focus on means and not ends. This tendency promotes power asymmetries, abuse and exploitation because material wealth and success become standards of gauging life success. Wisdom, long-term view and focus on extra-rationality take a back seat in the societal discourse. Management education imparting business schools sacrifice interdisciplinary approach because they find no need to engage humanities, arts, spirituality, history and religion in their discourses. That adds to the emotional blandness, soullessness and one track intelligence of their graduates.

The fourth major theme emerging from Introduction is the lack of critical reflection focus in management education. When taken for granted assumptions about self and society are not challenged, it becomes impossible to break the iron hold of status quo and the power imbalance and inequalities embedded in it.

## **5.5. Future Direction**

### ***5.5.1. Linguistic analysis of traditional management texts/discourse***

Linguistic analysis of management texts was beyond the scope of this paper. It can however become an interesting future research area to be explored by employing DA on verbal and written management texts.

### ***5.5.2. Flexibility and generalizability of WME model***

In the tradition of (Yazdani & Murad, 2015) model of ethicality, the proposed WME model is not prescriptive and does not promote any particular form of universal management education. On the contrary it promotes contextualized management education. This model can be equally effectively applied across cultures because it fully embraces and allows for localness, Contextuality and local values and norms. The simultaneous generalizability and flexibility of the model will emerge as it is put in practice in different contexts by researchers and practitioners.



### **5.5.3. Scope for empirical research**

Mezirow's transformative learning theory has not been empirically tested in the context of most non-Western settings. It would be a useful practice because it will provide a new angle and perspective to the already existing rich body of literature on transformative learning. There are many constructs of WME model such as TME Levels and WME for which instruments can be developed for empirical testing. More qualitatively oriented research techniques such as phenomenology would also add rich insights from different perspective in the existing body of knowledge of transformative learning theory. Mezirow's transformative learning theory has not been empirically tested in the context of most non-Western settings. It would be a useful practice because it will provide a new angel and perspective to the already existing rich body of literature on transformative learning. There are many constructs of WME model such as TME Levels and WME for which instruments can be developed for empirical testing. More qualitatively oriented research techniques such as phenomenology would also add rich insights from different perspective in the existing body of knowledge of transformative learning theory.

### **5.5.4. Moving towards a unified theory of transformative learning**

Transformative learning is explored outside the North American context in European, Far Eastern, African, Australian and South American settings. Exploring it in other contexts will give its literature more breadth because so far not much research on the construct has been conducted in the South East Asian and Middle Eastern context.

This paper provides more depth to already existing transformative learning knowledge by specifically focusing on its application in the context of management education. So far the theory is extensively studied in non-management settings like arts, literature, nursing, palliative care, medicine and psychology. Further research connecting transformative learning with management education would facilitate knowledge advancement by crafting more unified and context based transformative learning theory.

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## The Relationship between Salary Packages and Employee's Subjective Well-being: Evidence from Service-based SMEs in Pakistan

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### Abstract

An excellent package of salary plays very important role in the management of the talented people of the organization because such packages bring positivity in the feelings, behaviors and in the satisfaction of the people. The objective of this study is to test the hypotheses to investigate the relationship between salary packages and employee's subjective well-being. The study employed a quantitative methodology. Data were collected through a self-administered survey questionnaire. The questionnaire was adapted from a previous validated survey. The target population consisted of SMEs operating in the city of Quetta, Pakistan. Convenience sampling was applied to collect data from service-sector SMEs. A total of 486 questionnaires were distributed. Of these, 380 were received. However, 349 questionnaires were finally considered as useable. The results of correlation and regression analyses indicate that salary packages have significant positive impact upon employee's subjective well-being. Our study indicates that when an organization implement practice of excellent and attractive salary packages then such practices develop a realization of trust among the employees which bring positivity in their feelings and behaviors and this will develop their belonging and satisfaction towards the organization. This study also suggests that the top management should continuously monitor the structure of salary in the organization and devise such kind of salary structure which gives recognition to the competent talent of the organization.

**Keywords:** Salary Packages, Employee's SWB, Small and Medium Sized Enterprise (SMEs).

### 1. Introduction

An excellent package of salary plays a very important role in the management of the talented people of the organization because when attractive and competitive salary packages are given to the employees, such employees become more committed to the organization (Lockwood & Walton, 2008). According to Kirkland (2009) manners of

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administering excellent salary packages in an organization are highly concerned with either promoting the talent management process in an organization or discouraging it. He further stated that nowadays organizations are highly concerned in acquiring and selecting new talent and in retaining existing talent and focus more on the retention of competent talent.

In this way, excellent salary packages in an organization play a key role by retaining and managing the talented and valued staff (Chikumbi, 2011). When organizations give excellent salary packages for the management of their talented and valued staff, such packages bring positivity in the feelings, behaviors and in the satisfaction of such talented staff, which in turn influence their long term retention in the organization.

Similarly, it is true that when in an organization, deserving and talented staff are given rewards, such rewards will appreciate them to continue their desired behaviors in the organization (Locke, 1990). That's why it is essential for an organization to ensure that the compensations and rewards which are given to the talented staff should be valuable for the employees of the organization. Thus, for the purpose of having an effective salary structure organization should continuously monitor the structure of salary in the industry and devise such kind of salary structure which recognize the competent talent of the organization (Chikumbi, 2011).

About SWB McGillivray and Clarke (2006) specified that "SWB involves a multidimensional evaluation of life, including cognitive judgments of life satisfaction and affective evaluations of emotions and moods" (p. 4). In this way, SWB is the combination of positive and negative affection and life satisfaction (Shmotkin, 1998). Here positive affection means pleasant emotions or feeling like happiness or joy and negative affection means unpleasant emotions or feelings like sadness or anger. Moreover, prior studies on SWB mentioned that it has two parts such as, cognitive component and affective component (Westaway & Maluka, 2005). According to Ben-Zur (2003) cognitive components are the judgmental components which represent life satisfaction whereas; affective components are the emotional components which represent positive or negative affections or emotions. In this way positive effect represent positive emotions and negative effects represents dissatisfaction and distress. This show that positive effects are positive emotions or positive feelings or one can say happiness, however negative affect are negative emotions or negative feelings or one can say sadness, anxiety or distress. This indicates that SWB is a kind of cognitive and effective evaluation of the people which is made to know how with their life, they are happy and satisfied (Page, 2005).

It has been observed from prior studies that not much work has been found on the impact of salary packages upon SWB of the employees. For instance, the studies of (Chikumbi, 2011; Collings & Mellahi, 2009; Dhulla, 2013) focused only the impact of



employee empowerment upon employee's satisfaction or upon competitive advantage or covered only the effective components such as, positive emotions, feeling, moods and not covered cognitive components.

While, SWB covers both cognitive and effective parts of employees. Therefore, this study has addressed this gap by examining the impact of salary packages upon employee's SWB. Moreover, Prior studies have also shown that there is a lack of research in the field of salary packages and employee's SWB in SMEs. This leads to lack of knowledge about the phenomena in the context of SMEs. Similarly, there is lack of awareness regarding these phenomena particularly in the context of Baluchistan, Pakistan. Therefore, such problem statement gives rise the need to be resolved which has been done by this study.

Prior literature indicates that SMEs have become an important part of the economies of the industries (Eikebrokk & Olsen, 2007). In every country, SMEs have key roles in developing the economic conditions (Calice, Chando, & Sekioua, 2012). However, the spectrum of the definitions of SMEs is broad as different firms and different countries use different guidelines in defining SMEs, mostly based on the number of employees, revenues or assets (Bouri et al., 2011). For example, "Egypt defines SMEs as having more than 5 and fewer than 50 employees Vietnam considers SMEs to have between 10 and 300 employees the World Bank defines SMEs as those enterprises with a maximum of 300 employees \$15 million in annual revenue and \$15 million in assets and Inter-American Development Bank meanwhile describes SMEs as having a maximum of 100 employees and less than \$3 million in revenue" (Bouri et al., 2011).

Like other countries, different institutions in Pakistan use different definition of SMEs. For example, SMEDA defines SME based upon the number of employees (up to 250), paid up capital (up to Rs. 25) and annual sales (up to Rs. 250), the SME bank uses only total number of assets as the criterion, PBS takes into consideration only the number of employees, Whereas, SBP's definition of a SME is based on the nature of the business, number of employees, amount of capital employed and net sales value per annum (Raziq & Shaikh, 2015).

Moreover, much more work has been done on large organization regarding salary packages. However, studies regarding small and medium-sized organization with special focus on salary packages and employee's SWB are lacking. Therefore, this study has addressed the gap by examining the impact of salary packages upon employee's SWB in SMEs of Baluchistan, Pakistan.

The outcomes of this study will enhance the knowledge about the importance of excellent salary packages in SMEs and its impact upon the SWB of their employees. It is a fact that if the practice of excellent salary packages is successfully implemented,

then this will lead an organization towards competitive advantage, because successfully implementing this practice will enhanced the organizational productivity and enhance the overall motivation of the employees. Such motivated employees become innovative and effectively contribute to the firm (Chikumbi, 2011). Therefore, this study will give an addition to the literature by enhancing the knowledge and awareness about the importance of excellent salary packages and its impact upon employee's SWB particularly in the context of service based SMEs of Baluchistan, Pakistan.

## **2. Theory and Hypothesis**

According to Kirkland (2009) ways of administering salary packages in an organization are highly concerned with either promoting the talent management process in an organization or discouraging it. Lockwood and Walton (2008), further added that an attractive package of salary plays a very important role in managing the people of the organization because when attractive and competitive salary packages are given to employees, employees become more committed to the organization. In this way, an excellent and attractive salary package brings positivity in the feelings, behaviors and in the satisfaction of such talented staff (Chikumbi, 2011).

Kirkland (2009), further stated that nowadays organizations are highly concerned in acquiring and selecting new talent and in retaining existing talent and focus more on the retention of competent talent. Therefore, an organization become successful in shaping positive attitudes and behaviors in their talented employees by giving them attractive packages of salary system. This will result in the retention of talented people in the organization (Lockwood & Walton, 2008). It has also been observed that organization losing the talented staff are those who have unsatisfied employees with the salary structure of the organizations (Chikumbi, 2011). Therefore, an attractive salary package has the potential to increase the positive feelings and behaviors of the talented people of the organization (Kirkland, 2009).

Moreover, Coetsee (2011) suggested that top management of the organization should make struggle in order to motivates and encourage their talented people of the organization and then provide such recognition to the employees, which can appreciate the employees in order to perform well for the success of the organization. It is a fact that people give preference to only those organizations which have effective system for salary distribution (Chikumbi, 2011). It can also be said that an effective structure of salary package has the power to build up the behavioral aspects of the employees (Kirkland, 2009). Therefore, it seems to be very important for the organizations to set up such kind of salary structure which boosts the positive feelings, behaviors and satisfactions of the employees (Coetsee, 2011). He further explained the importance of the excellent salary packages that when these are given to the deserving talent, they are encouraged and satisfied, work hard and become motivated to their work. This

indicates that a valuable system of salary fosters the effective and cognitive aspects of employee's SWB.

Hence, SWB is the combination of positive and negative affection and life satisfaction (Shmotkin, 1998). Here positive affection means pleasant emotions or feeling like happiness or joy and negative affection means unpleasant emotions or feelings like sadness or anger. Similarly according to Diener (1994) SWB is "a broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgments of life satisfaction" (p. 277). In the same way, Diener (1994) mentioned that SWB has two important components such as, effective component which consists of the positive affection and cognitive component. Effective components measure the emotions and feelings of a person whereas, cognitive components measure that to what extent one's life is satisfied and goes according to his expectations (Van Hoorn, 2007).

This shows that SWB is a kind of cognitive and affective evaluation of the people which is made to know how with their life they are happy and satisfied (Page, 2005). It has been observed from the literature that salary packages have influence upon the multidimensional evaluation of life. While "SWB involves a multidimensional evaluation of life, including cognitive judgments of life satisfaction and effective evaluations of emotions and moods" (McGillivray & Clarke, 2006). This study examines the influence of salary packages upon the SWB of the employees. Therefore, following hypotheses have been developed by this study.

*H1: There is a significant positive relationship between salary packages and affective components of employee's subjective well-being.*

*H2: There is a significant positive relationship between salary packages and cognitive components of employee's subjective well-being.*

### **3. Methodology**

#### ***Sample***

To test the hypotheses of this study, questionnaire survey was conducted in Quetta city of Pakistan. In this study, target population consists of SMEs operating in the city of Quetta because Quetta is the capital and largest city of the province of Baluchistan. Moreover, in the province of Baluchistan, Quetta city is considered as "center of commercial activities" and having "central and strategic position" (DDPQ, 2011). Being a capital city, Quetta has a vast chain of businesses, industries, markets, resources etc. as compared to other cities of Baluchistan. Moreover, due to limited access, time constraint and inconvenience this study has not targeted SMEs of other cities of Baluchistan.

Sampling technique for this study was a non-probability sampling method due to the fact that there is not a single database in Quetta city that is specifically designed for SMEs. Even Quetta Chamber of Commerce and Industry (QCCI) does not provide reliable and updated sampling frame about SMEs operating in Quetta city. The use of such nonprobability sampling method is also supported by Raziq and Shaikh (2015) in their study that there is no SME database available in Pakistan.

Service sectors employees of SMEs of Quetta city were sampled. This study has not targeted manufacturing based SMEs of Quetta city because as compared to other cities of Pakistan, Quetta city has lack of resources and polices in order to develop proper arrangements for manufacturing based SMEs. In this way, as compared to service based SMEs, very few manufacturing based SMEs are working in Quetta city which were not enough to provide sufficient data for this study. Therefore, this was not feasible to collect data from the manufacturing based SMEs of Quetta city.

### ***Data Collection***

First, for collecting data, telephonic calls were made to the heads/managers of service based SMEs in order to know whether particular organization is SMEs or not. After getting appointments from the heads/managers, a meeting was conducted with them. During the meeting, a permission letter from the researcher's university was presented to the heads/managers. This letter mentioned the details of the researcher as well as about the purpose of study and asking permission for data collection.

After getting permission, through a "self-administered questionnaires" data was collected. Such questionnaires were distributed to the employees of the services based SMEs operating in Quetta city. Each questionnaire was attached with an introduction page mentioning the complete details of researcher and study. It also allows the participants to give their participation "voluntary and can refuse to participate or stop at any time without any prejudice". It was also agreed that "participant's identity will therefore be treated as strictly confidential".

This study has distributed about 486 questionnaires to the employees of SMEs and has received 380 questionnaires. However, out of 380 questionnaires 349 questionnaires were finally considered as useable and 31 questionnaires were discarded because of having errors during the completion of the questionnaires.

After getting questionnaires, they were stored in a safe place. Supervisor and researcher were the only persons who had access to the filled questionnaires. All the results were only discussed with the supervisors.

### ***Measures***

Questionnaire: The Questionnaire for this study was adopted from the research study of (Chikumbi, 2011). The validity and reliability issues were addressed through factor analysis and Cronbach alpha. Subjective Well-being (SWB) can be measured by

effective components such as, positive or negative emotions and by cognitive components such as, life satisfaction. These two components of SWB are measured separately by using two different scales. Therefore, this study has also used these scales by adopting the questionnaire from the research study of (Jansen, 2008).

Effective components such as positive or negative emotions are measured by "Positive and Negative Effect Scale (PANES)". This scale has a list of emotions or feelings and the participants are requested to mention that to what extent they feel these emotions or feelings. This scale comprised 20 items in which 10 items "measured positive effect" and 10 items measured negative effect at five point Likert scale such as, "strongly disagree, disagree, uncertain, agree, strongly agree". While, cognitive component such as, life satisfaction is measured by "Satisfaction with Life Scale (SWLS)". This scale comprised 5 items at five "point Likert scale" such as, "strongly disagree, disagree, uncertain, agree, and strongly agree".

The content validity and reliability of the questionnaire was also addressed (see Table 2 &3). For the purpose of determining the content validity of the questionnaire with respect to culture, norms and environment of the SMEs of Quetta city, we presented questionnaire to the SMEs experts and to the owners and managers of service based SMEs within Quetta city for getting their comments and feedbacks on the suitability of each item. After getting their comments and feedbacks, questionnaire was revised and redesigned in such a way that some irrelevant questions were removed. The language of some questions was also transformed in a way that it gave simple and easy meanings and understanding to the respondents. Reliability analysis indicated "Cronbach alpha coefficient" greater than 0.7 (see Table 3).

#### **4. Results**

##### ***Composition of the Data***

Table 1 displays age and gender analysis of the participants. In this study out of 349 respondents, only 124 (35%) were the females and 225 (65%) were males who participated in this study. Similarly, about 154 (44%) participants of the study were between 15-25 years of age, 123 (35%) participants were between 26-35 years of age, 54 (16%) participants were between 36-45 years of age, 11 (3%) participants were between 46-55 years of age and about 7 (2%) participants were between 56-above years of age.

Table 1: Composition of the Data (n = 349)

<b>Gender</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Male	225	64.5	64.5	64.5
Female	124	35.5	35.5	100.0
Total	349	100.0	100.0	

<b>Age</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
15-25	154	44.1	44.1	44.1
26-35	123	35.2	35.2	79.4
36-45	54	15.5	15.5	94.8
46-55	11	3.2	3.2	98.0
56-above	7	2.0	2.0	100.0
Total	349	100.0	100.0	

**Exploratory Factor Analysis**

Factor analysis test was applied to all the scales measured in the study. It has been observed that KMO values of all components used in the study are greater than 0.70. Furthermore, Bartlett's Test of Sphericity of all the components showing significant values at 0.05 level. Factor analysis also show "rotated component matrix" which is a matrix of the factor loadings for each variable onto each factor. In other words, "rotated component matrix shows which questions relates to which factor" (Crezee, 2009). Table 2 displays high loading of greater than 0.5 of all the items in their respective components (variables).

Table 2: Rotated Component Matrix

	SP	CC	AC (PA)	AC (NA)
"The salaries are package adequate for my level".	.981			
"The salary and other variable payments compare well with the rest of the market".	.984			
"The remuneration package is attractive".	.976			
"My remuneration matches my efforts in my job".	.970			
"The rewards the firm gives motivates one for better performance".	.963			
"There are incentives for good performance".	.965			
"I perceive the reward system to be equitable".	.613			
"Rewards given for good performance are valuable".	.988			
"In most ways my life is close to my ideal".		.760		
"The conditions of my life are excellent".		.832		

"I am satisfied with my life".	.844
"So far I have gotten the important things I want in life".	.682
I usually feel Interest in my life.	.983
I usually feel Excitement in my life.	.978
I usually feel Strong in my life.	.960
I usually feel Enthusiastic in my life.	.964
I usually feel Proud of my life.	.944
I usually feel Alert in my life.	.965
I usually feel Inspired in my life.	.578
I usually feel Determined in my life.	.983
I usually feel Attentive in my life.	.972
I usually feel Active in my life.	.609
I usually feel Distressed in my life.	.995
I usually feel Upset in my life.	.965
I usually feel Guilty in my life.	.958
I usually feel Scared in my life.	.961
I usually feel Hostile in my life.	.971
I usually feel Irritable in my life.	.979
I usually feel Ashamed in my life.	.942
I usually feel Nervous in my life.	.963
I usually feel Jittery in my life.	.955
I usually feel Afraid in my life.	.988

*Extracted Method: Principle Components Analysis.*

*Rotation Method: Varimax with Kaiser Normalization.*

- a. Kaiser-Meyer-Olkin Measure of Sampling Adequacy  $KMO > 0.5$
- b. Bartlett's Test of Sphericity =  $p < 0.05$
- c. Factor Loading Less than 0.5 is omitted.

*Notes: SP = Salary Packages; CC = Cognitive Components; AC (PA) = Affective Components (Positive Affects); AC (NA) = Affective Components (Negative Affects).*

### **Correlation**

Before performing regression analysis for testing the hypotheses, the correlation between variables should be examined. According to (Hair, Black, Babin, & Anderson, 2010), if variables are correlated with each other, it is suitable to proceed forward for testing the hypotheses to investigate the impact of salary packages upon employee's SWB through regression analysis. Table 3 indicates that there exist correlation between all the variables used in the study. Therefore, it is feasible to run regression analysis for testing the hypotheses. However, results also indicate that among all variables, negative affects variable of affective components of the employee's SWB is not showing significant correlation with other variables of the study. Thus, they are discarded in further analysis.

Table 3: Reliability Analysis and Correlations

	SP	AC(PA)	AC(NA)	CC
SP	(0.977)			
AC(PA)	.354**	(0.973)		
AC(NA)	-.061	-.033	(0.992)	
CC	.421**	.342**	-.008	(0.764)

\*\* Correlation is significant at the 0.05 level (2-tailed).

Cronbach Alpha Coefficients for multi item scales are listed on the diagonal in parentheses.

Notes: SP = Salary Packages; CC = Cognitive Components; AC (PA) = Affective Components (Positive Affects); AC (NA) = Affective Components (Negative Affects).

### Regression Analysis

Regression analysis was performed in order to test the hypotheses to study the impact of salary packages upon employee's SWB. Two Hypotheses developed by this study are being tested. Before testing the hypotheses, basic assumptions of regression analysis were addressed (see appendix A).

**H1:** *There is a significant positive relationship between salary packages and affective components of employee's subjective well-being.*

This study tests the hypotheses to study the relationship between salary packages (SP) and affective components of employee are SWB. Table 4 displays R square (0.126) and adjusted R square (0.123) values, indicating that about 12% variance is explained by salary packages (SP) in positive effects (PA) of affective components of employee's SWB. "Multiple correlation coefficient" of  $R=0.354$  is significant ( $F(349) = 49.874$ ;  $p < 0.05$ ). The p value is less than 0.05. Results postulated that salary packages (SP) show significant positive variance in positive affects (PA) of affective components of employee's SWB.

Table 4: Regression of salary packages upon affective components

R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig
.354 <sup>a</sup>	.126	.123	1.03993	49.874	.000
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.795	.099		28.222	.000
SP	.793	.112	.354	7.062	.000

a. Predictors: (Constant), SP = Salary Packages.

b. Dependent Variable: PA = Positive Effects of Affective Components of SWB



Table 4 indicates that  $\beta = 0.354$  is significant ( $t(349) = 7.062; p < 0.05$ ). Results represent the contribution of salary packages (SP) along with other variables, in determining the positive effects (PA) of affective components of employee's SWB. This shows that salary packages (SP) have a significant positive impact upon the positive emotions, feelings of the employees.

**H2:** *There is a significant positive relationship between salary packages and cognitive components of employee's subjective well-being.*

Moreover, the results of regression analysis of the study test the hypotheses to investigate the relationship between salary packages (SP) and cognitive components (CC) of employee's SWB. Table 5 displays R square (0.178) and adjusted R square (0.175) values, indicating that about 18% variance is explained by salary packages (SP) in cognitive components (CC) of employee's SWB. "Multiple correlation coefficient" of  $R = 0.421$  is significant ( $F(349) = 79.954; p < 0.05$ ). The p value is less than 0.05. Thus, the results of the study demonstrated that salary packages (SP) show significant positive variance in cognitive components (CC) of employee's SWB.

Table 5: Regression of salary packages upon Cognitive components

R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
.421 <sup>a</sup>	.178	.175	.61423	79.954	.000
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.997	.058		34.139	.000
SP	.574	.066	.421	8.658	.000

a. Predictors: (Constant), SP = Salary Packages.

b. Dependent Variable: CC = Cognitive Components of SWB

## 5. Discussion

This study has aimed to investigate the relationship between salary packages and employee's SWB. The analysis of results for this study indicated that salary packages is correlated with the affective and cognitive components of employee's SWB. Moreover, if the literature of the study is observed, it seems that employee's SWB has two parts (cognitive components and affective components). However, affective components are the combination of positive and negative affection (Shmotkin, 1998). Here positive affection means pleasant emotions or feeling like happiness or joy and negative affection means unpleasant emotions or feelings like sadness or anger and at one time. A person may have either pleasant emotions, feelings or he may have unpleasant emotions, feelings (Page, 2005).

It means that in case of affective components of employee's SWB, a person may have only positive affection of affective components or have only negative affections of affective components. Similarly, the results of correlations support the literatures by showing significant correlation with positive association salary packages with affective components and cognitive components of employee's SWB. However, results indicated insignificant correlation with negative effects of affective components of employee's SWB. Thus, negative effects of affective components of employee's SWB are discarded for further analysis. Therefore, the data of the study was suitable to proceed further to test the hypotheses by considering the positive effects of effective components and cognitive components of employee's SWB in order to investigate the impact of salary packages upon employee's SWB through regression analysis (Hair et al., 2010).

After testing the hypotheses it is revealed that significant positive contribution has been determined by salary packages in predicting the affective components as well as cognitive components of employee's SWB. In this way, results of the study postulated that there is a significant positive impact of salary packages upon affective components of employee's SWB as well as significant positive impact of salary packages upon cognitive components of employee's SWB.

In this way, our results support the literature that when attractive and competitive salary packages are given to employees then employees becomes more committed to the organization. Therefore, an attractive salary package has the potential to increase the positive feelings and behaviors of the talented people of the organization (Kirkland, 2009). It has also been observed that when attractive salary packages are given to the deserving talent, they are encouraged and satisfied to work hard and become motivated to their work (Coetsee, 2011). Therefore, it seems to be very important for the organizations to setup such kind of salary structure which boost the positive feelings, behaviors and satisfactions of the employees (Coetsee, 2011). Moreover, Coetsee (2011) suggested that top management of the organization should make struggle in order to motivate and encourage their talented people of the organization and then provide such recognition to the employees, which can appreciate the employees in order to perform well for the success of the organization. Therefore, such excellent and attractive salary packages bring positivity in the feelings, behaviors and in the satisfaction of the talented people in the organization. Hence, SWB is the combination of positive and negative affection and life satisfaction (Shmotkin, 1998). Similarly, "SWB involves a multidimensional evaluation of life, including cognitive judgments of life satisfaction and affective evaluations of emotions and moods" (McGillivray & Clarke, 2006). This indicates that a valuable system of salary fosters the affective and cognitive aspects of employee's SWB.

## 6. Conclusion

This study examine the relationship between salary packages and employee's SWB of service based SMEs in Pakistan. After testing the hypotheses, our study indicated that the practice of salary packages plays a vital role in shaping the SWB of employees. Hence, our study concluded that salary packages have significant positive impact upon affective and cognitive components of employee's SWB.

Our study indicates that when an organization implements practice of excellent and attractive salary packages, such practices develop a realization of trust among the employees which bring positivity in their feelings and behaviors and this will develop their belonging and satisfaction towards the organization supporting that there is a significant positive impact of salary packages upon SWB of the employees.

It is the responsibility of the top management of an organization to pay due care and due diligence while implementing the practice of excellent and attractive salary packages in the organization because the success or failure of an organization is dependent upon the strategies of managing the talent who are the most important assets and whose satisfaction and engagement determine the effectiveness of the organization.

Management of the organization should make struggle in order to search that by which ways, they can motivates and encourage their talented people of the organization and then provide such recognition to the employees, which can appreciate the employees in order to perform well for the success of the organization.

Our study has some limitations. This study could not collect the data from the manufacturing sector SMEs of Quetta, due to lack of large number of manufacturing units. Our study could not target the SMEs of other cities of Pakistan due to limited access, time constraint and inconvenience. Therefore, it is recommended that future researcher should emphasize their study by considering SMEs operating in other parts of the country.

The findings of this study will be fruitful for theoretical development, because very few studies have been conducted in SMEs regarding salary packages and SWB. Hence, in the literary studies, there is a huge gap with regard to SMEs. Therefore, this study will be an addition as a new knowledge in the literature of SMEs. This study will be beneficial for the HR practitioners of SMEs, as they become aware that how critical the management and development of the people for an organization. The study will also be helpful for other researchers, as they will get guidelines from the findings of this research and will be able to undergone more studies in this area.

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## Appendix A: Assumptions of Multiple Regression Analysis

### *Linearity*

It is argued in prior studies that the assumption of linearity is most important for regression analysis because all the results of the analysis based upon the linearity (Keith, 2006). Therefore, if there is no linear relationship between dependent and independent variables then the true relationship will be under or over estimated by the results of the regression analysis (Osborne & Waters, 2002). Figure 01 indicates linear relationship between dependent and independent variables. Therefore, the data used for this satisfied the assumption of linearity. Hence, assumption of linearity is not violated.

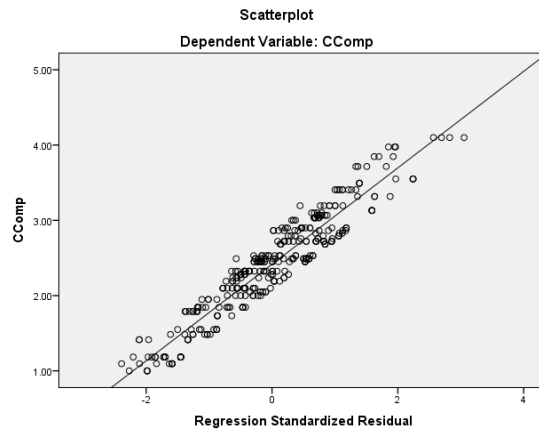


Figure 1: Linearity

### *Normality*

For regression analysis, data should be normally distributed (Hair et al. 2010). Normality can be checked through different methods such as, through skewness, kurtosis statistic table, histograms and P-plot (Osborne & Waters, 2002). Table 6 indicates normal distribution of the data used in the study through skewness and kurtosis statistic table. Figure 02 displays a histogram which is a bar graph showing a curve which is representing normal distribution of the data. Similarly, figure 03 displays P-plot which is also representing normal distribution of the data used in the study. All these show normal distribution of the errors, and the plot of the residuals values is a normal curve. Therefore, assumption of normality is not violated.

Table 6: Normality of the Data (n = 349)

	Mean	Std. Deviation	Skewness		Kurtosis	
			Statistic	Std. Error	Statistic	Std. Error
SP	0.7294	.49639	.254	.131	-1.317	.260
CC	2.4159	.67635	-.030	.131	-.183	.260
AC (PA)	3.3736	1.11056	-.159	.131	.159	.260
AC (NA)	23.6126	10.51699	.258	.131	-.982	.260

Notes: SP = Salary Packages; CC = Cognitive Components; AC (PA) = Affective Components (Positive Affects); AC (NA) = Affective Components (Negative Affects).

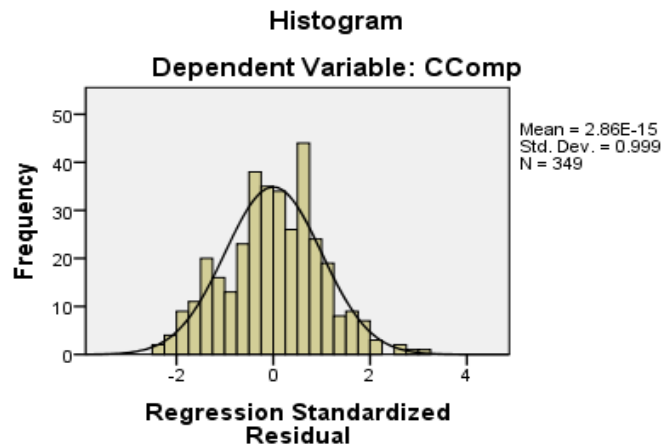


Figure 2: Histogram for Normality

Normal P-P Plot of Regression Standardized Residual

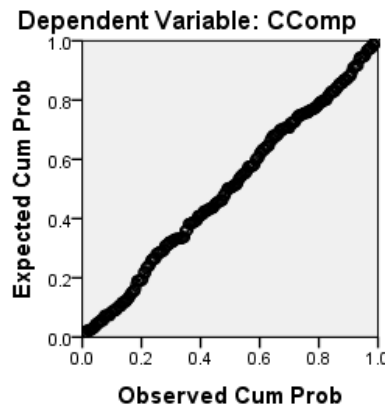
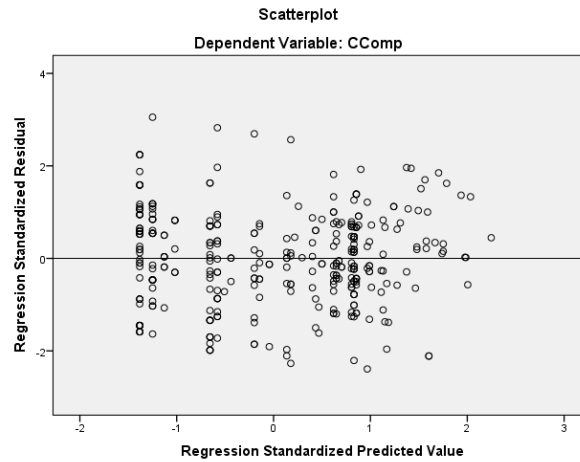


Figure 3: P-plot for Normality

***Homoscedasticity***

For regression analysis, the assumption of homoscedasticity should be satisfied. Homoscedasticity is showing “equal variance of errors across all levels of the independent variables” (Osborne & Waters, 2002). Therefore, “errors are spread out consistently between the variables” (Keith, 2006). Figure 04 support the literatures and indicates that “errors are spread out consistently between the variables”. Therefore, the assumption of homoscedasticity is not violated by the data used in this study.



*Figure 4: Homoscedasticity*



## Market Volatility and Momentum: Evidence from Pakistani Stock Exchange

Anila Rafique Khan<sup>1\*</sup>, Muhammad Waqas<sup>1</sup>, Arshad Hassan<sup>1</sup>

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### Abstract

This study explores the relationship between market volatility and momentum profitability. This study indicates that market state volatility has significant power to forecast momentum payoffs, especially in negative market states. The results are the context in the presence of market state and business cycle variables. Market premium is significant and negative. Market volatility is also found negatively influencing momentum profits. Volatility is divided into volatility in the positive market and volatility in the negative market. Both are significantly and negatively influencing momentum profits. Vol+ and Vol- both have negative signs; Vol- is dominant in terms of the magnitudes of the coefficient and the t-statistics. Business cycle effect measured by term and yield is not found significant. Non-linearity has not been observed regarding the term. Results are found robust for market adjusted momentum payoff. The study also explores the impact of market state, volatility and business cycles on the return of loser and winner portfolio. This study reports that returns of the loser portfolios are explained by market component, whereas volatility is found to be insignificant. The macroeconomic variables TERM, TERM2 and YLD show signs of statistical significance. Market factor is significantly and positively influencing winner portfolios. The results indicate that volatile markets forecast low returns on winner stocks. Return dispersion used to measure cross-sectional is also found significant. The study recommends that investors should devise investment and momentum strategies on the basis of the volatility of stocks and the business cycle. The tests of this study show that volatile down markets forecast low momentum payoffs. The time-series predictability of momentum is asymmetric, which arises from loser stocks.

**Keywords:** Market volatility, Momentum, Time-series predictability of momentum.

### 1. Introduction

Market volatility is the up and down movement measured by standard deviation from the expectation. When the stock market rises one day and down for the next three and then up again so this up and down movement is called stock market volatility. Volatility is frequently referred to as a risk indicator as high price fluctuations can

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signal uncertainty in the markets and the powers among buyers and sellers are regularly shifting.

Momentum is frequently referred to as trend power. Momentum strategy believes that stock which has performed well will be doing so also in the future. So it focuses on buying stocks with good historical performance and selling stock which has done worse. Market momentum is the expected market changes which are likely to occur in the near future. It is the change in price as well as volume.

Market momentum is the expected strength of the positive or negative change in the market price. How prices change during a specific period of time versus volume during that period remains a matter of debate. Traders who do not know how to exercise volatility and momentum information in their trading frequently find themselves in trades where risk cannot be controlled or enter the markets on the incorrect nodes. Momentums strategies can help out investors beat the market and keep away from losses.

Wang and Xu (2015), examine the momentum predictability. The study captures idea from the extreme 2008-2009 instance, and explore whether market volatility is related to momentum. The study discovers that volatility of marketplace has significant and powerful predictive influence on momentum earnings, particularly in negative market states. Momentum profitability is high for a firm that has high information ambiguity or high default risk. The study demonstrates that unstable losing markets predict low momentum payoffs. The time-series predictability of momentum is not smooth for loser stocks.

Wang and Xu (2015), investigate market volatility as a forecaster of momentum profits. The analyses show that the prognostic benefit of the volatility of the market for momentums proceeds is strong and significant. The study consists of two most important results. The first one is that the stock market volatility gives a strong empirical description of the time series predictability of momentum. The study finds out that high market volatility predicts low down momentum benefit, so this relation is more robust in downwards marketplaces. The negatively linked, market volatility and market condition harmonize all other in the foretelling of momentum payoffs. Momentum earnings are different clearly among positive market states of low down volatility and unstable downwards markets. Secondly, the time-variation in momentum profits has a remarkable characteristic. The study observes asymmetric predictability between loser and winner portfolio.

The study of Wang and Xu (2015), have broadened the results of Cooper, Gutierrez, and Hameed (2004) in two significant ways. First, Wang and Xu (2015), explore volatility as a predictor of momentum payoffs. Market volatility put in significant predictive influence in down marketplaces. Jointly, volatility of market and markets state control many other variables and with the most vigorous depiction of the time-

varying momentum earnings. Secondly, the study report loser-centered predictability. The loser stocks generally have comparatively high earnings following volatile down market. These recent results present a fascinating defy to a number of theories, both conduct, and risk-based, which may have recently been anticipated to describe the momentum effect. Daniel, Hirshleifer, and Subrahmanyam (1998), for instance, imagine many investors are too confident of their confidential selective information and react excessively to it.

Wang and Xu (2015), investigate the predictive benefits on the volatility of market intended for the profitability of momentum. Wang and Xu (2015), reveal that the volatility has a strong influence towards predict momentum payoff. Distinct business cycle along with variables of market state, report the significant influence of the market volatility on momentum sorted portfolio. Further, the forecasting role of the volatility of market continues along with market state and variables of the business cycle. Just market state persists in reporting forecasting force for momentum effectiveness.

## **2. Literature Review**

Just similar to various models, this behavioral model creates indirect suggestions that are symmetric among positive and negative information. Facts that market state and market volatility predict momentum income are supporting to the model if the performance of the winners and losers portfolio are symmetrically knowable. A further example is a behavioral theory developed by (Hong, Lim, & Stein, 2000; Hong & Stein, 1999). That provides that personal information spreads slowly but surely in the marketplace, which causes under-reaction. Hong et al. (2000), present verification that information spreading is slow pro unfortunate thing. Though Wang and Xu (2015), result that high volatility in downwards markets forecasts high earnings on lower stocks is consistent among investor overreaction, not under-reaction, towards negative information in the terrible period.

The result of momentum, formerly discovered by Jegadeesh and Titman (1993), has been widely examined. Results of, Cooper et al. (2004) and Avramov, Chordia, Jostova, and Philipov (2007) are strongly related to Wang and Xu (2015). Cooper et al. (2004), focus on time-series predictability. The study concludes that momentum profits rely upon market circumstances. It is deduced as helpful proof for overreaction models. Avramov et al. (2007), reveal a cross-sectional association among momentum and credit rating and discover that momentum earnings are extremely significant for low-quality firms, but an absent in high-grade firms. Wang and Xu (2015), provide that volatility of market has prognostic force intended for variation of time into momentum payoffs.

Chordia and Shivakumar (2002), concentrate on the function of the business cycle in elucidation momentums. Wang and Xu (2015), focus on the direction of the volatility of market used for the profitability of momentum. Their findings are not in line with

the studies of Chordia and Shivakumar (2002) and Cooper et al. (2004) that are supported by the business cycles risk justification and the behavioral theory. Wang and Xu (2015), results are impressing when evaluated with several Cross-Sectional findings. The findings of Jiang, Lee, and Zhang (2005) and Zhang and Li (2006) illustrate that payoffs of momentum are superior amongst organizations with high data ambiguity. On the other hand, Wang and Xu (2015) locate that high periods of volatility are followed by small momentum payoff. Though momentums have cross-sectional, but effect analysis demonstrates that time series aspect is essential in favor of designing a momentum convincing theory. Their results indicate contradiction to present work on momentum. The study also reports that volatilities to the link to returns forecasting. Past researchers have investigated the time series relationship among volatility of markets and the expected returns of the market. Their findings widen this distinctive line of research by evaluating the time-series association among market volatility and momentum profitability.

The cross-sectional testing of determinants of momentum profits by Avramov et al. (2007) appears to recommend that payoffs of momentums are high in down markets as default risk is a foremost concern. The time-series analysis of Cooper et al. (2004) conversely shows that payoffs of momentums are significant in positive market states. The dissimilarity among the Cross-Sectional as well as Time series results are puzzles that Avramov et al. (2007) highlight but Wang and Xu (2015) point to the subsequent justification of this puzzle. On the other hand, investors are anxious about default risk in downwards markets, mainly for loss stocks by low credit ratings. Investors sell the loser stocks to escape high default risk in unstable down marketplaces the following loser change providers grow to negative momentum payoffs. On the other side, investors are too confident in high-quality market settings with disregard to negative phases of loss stocks with mostly credit risk. Sometimes investors over-buy loser stocks in the excellent period, making significant momentum earnings. Constant to the opinion that losers stock are comparatively overbought in fine time, Wang and Xu (2015) discover that the lofty market states predicted small profits, comparative to the market return within the similar time, on loser stocks.

Latest studies have revealed the significance of momentums for assured subsets of stock and shares. Jiang et al. (2005) and Zhang and Li (2006), comprehend that payoff of momentum is high along with organizations by means of higher information ambiguity. The proxy server information vagueness by organization size, firm age, and specialist predict dispersion, volatility of cash flow, and volatility of stock returns. These cross-sectional conclusions seem to recommend that momentum payoffs are higher in the occurrence of high market ambiguity which is in contradiction to (Wang & Xu, 2015). The difference between cross-sectional and time series result is alike towards the puzzle highlighted by (Avramov et al., 2007). The empirical proof is steady with the above loser-centered description. In down markets, the journey to security arises such that investors over-sell loser stocks with high information ambiguity, giving

rise to low momentum payoffs. In superior market circumstances, investors are violent in looking for comparatively cheap stocks and shares such that they buy in excessive quantity insolvent stockpiles allied with higher information ambiguity, making high momentum payoffs. Wang and Xu (2015), results propose an easy approach to improve profits of momentum investing. In the case of the lagged 12 months, volatility is high than the annualized lagged 36 months volatility, they explain it as a month of high volatility.

Wang and Xu (2015), inspect the prognostic benefits of the volatility of the market in favor of momentums. They state with the purpose of (1) market volatility have important capability towards predicting momentum payoff, it is vigorous later than regulating on behalf of business cycle variables as well as market state; (2) the market volatility attracts largely of the prognostic influence of market state; (3) subsequent to managing meant for market state along with market volatility but other variables don't have progressive foretelling force; (4) time series forecasting profit of volatility of marketplace be devoted to failure stockpile; furthermore (5) the defaulting probability help to describe the forecasting strength of volatility of market pro momentum. All these results mutually show a substantial defy to present assumptions lying on momentum.

Several theoretical and empirical works on volatility on the basis of volatility weighting exist. (Hallerbach (2012), 2014)) use weighting strategy via their own volatility and for the same purpose of uses normalized returns. According to Barroso and Santa-Clara (2015), the process of weighting cross-sectional equity momentum through their volatility is extremely helpful to improve their risk-adjusted performance: the process of executing the volatility-weighting doubles the Sharpe ratio. The process of the categorization of stock according to their precedent residuary rather of overall return produces an additional constant edition of momentum (Blitz, Huij, & Martens, 2011).

Lee and Swaminathan (2000), shows that momentum is stronger for stocks with high trading volume. To the extent that both volume and forecast dispersion that measure the difference of opinion, momentum profits are related to both variable under the hypothesis that differences in beliefs intensify return persistence. Hou and Moskowitz (2005), find that the price of stocks with higher residual volatility reveals delay in the incorporation of information. In several pricing models, the risk is measured by market volatility, and change in market volatility is found to influence the future income on all assets. The role of changes in volatility is helpful in explaining the change in expected profit over time (Harvey & Whaley, 1992).

Makarov and Rytchkov (2012), demonstrate that heterogeneous information can lead to momentum. Conrad and Kaul (1998), examine prominent verification signifying that the profits of momentum are ascription to the cross-sectional difference in

expected returns relatively than to any time series reliance in return. The innovative result acknowledged by Jegadeesh and Titman (1993) have consequently been extensive in various findings. Like, Rouwenhorst (1998) discover related momentum profit in the European markets, Moskowitz and Grinblatt (1999) discover profit of momentum a cross-industry sorted portfolio, and Grundy and Martin (2001) investigate the strategy of momentum have been persistently painful in the United State ever since 1920.

Jegadeesh and Titman (1993), direct to the scope that higher past return might be partially due to higher expected return, the winners' portfolio could possibly include higher risk stock that would maintain to get a high expected return in the future. The study of Grundy and Martin (2001), demonstrate to momentums have significant minus beta subsequent to prices falls. The study argues that hedging this time-varying market disclosure produces stable momentum returns but Daniel et al. (1998) show that using betas in real time does not avoid the crashes. (Jegadeesh & Titman, 2001, 2002) document the significance of momentum profitability after the primary discovery of momentum. Rouwenhorst (1998), finds momentum payoffs to be considerably positive in twelve other countries examined in his study. The strength of momentum returns has created a variety of justifications, behavioral and risk-based as well.

Essential exceptions consist of Chordia and Shivakumar (2002) that discover that the change in momentum is based on the business cycle, Cooper et al. (2004), report the momentum live just into 'up' marketplace position. Stivers and Sun (2010), discover that Cross-Sectional Returns influence payoffs of momentum. For the resolution of an anomaly, this is essential to know about its origin. Various Authors, e.g., (Daniel et al. (1998); Hong and Stein (1999)) present a behavioral model that have foundation on the initiative that momentums profit occurs due to inherent biases that are why investor interpret information. On the other hand, it's early to eliminate the rational model and recommend that the profitability's of momentums strategy might be recompense for threat.

According to Lo and MacKinlay (1990) and others, note down that stock with the high (low) unrestricted future rate of return in nearby time periods are expected to contain high (low) apprehend rate of returns in the same periods. The positive average returns arise from momentum strategies although expected profits on stocks are stable overtime. Hodoshima, Garza-Gómez, and Kunimura (2000), document the association between risk and stocks return in Japanese equities market via using Cross Section regressions. It is evidenced that there is an insignificant relationship among return and risks as regressions apply on extra return. However, when regressions tests are applied individually on optimistic and pessimistic return subsequently short terms association among return and risk have been reported.

Strong positive average returns and the sharp ratio of momentum strategies are interposed by rare crashes. Brunnermeier, Nagel, and Pedersen (2008), state that negative returns are definite and determined. According to Cooper et al. (2004) and Stivers and Sun (2010), momentum premium falls when there is the situation of negativity state in previous three years and the market volatility is high when the momentum premium is high. Cooper et al. (2004), recommend behavioral justification for this evidence that reliable momentum performing unsuccessfully throughout market recovers when others are time as well if assets are mispriced.

### **3. Data and Methodology**

The current study aims to explore the impact of market volatility on momentum profits in Pakistan. This study uses monthly and daily prices of 80 companies listed on Karachi Stock Exchange for the period of 2003-2015. The reason for using 80 companies is that only a few companies are frequently traded in the market, so large sample leads to the selection of inactive companies. Wang and Xu (2015), examine the momentum predictability and investigate market volatility as a forecaster of momentum profits.

Wang and Xu (2015), explore volatility as a predictor of momentum payoffs. Market volatility put in significant predictive influence in down market. Market volatility and markets state control many other variables and endow with the most vigorous depiction of the time-varying momentum earnings. Secondly, the study reports loser-centered predictability. The loser stocks generally have comparatively high earnings following volatile down market.

Wang and Xu (2015), investigate the predictive benefits on the market volatility intended for the profitability of momentum. Wang and Xu (2015), reveal that the volatility has a strong influence towards predict momentum payoff. Distinct business cycle along with variables of market state, report the significant influence of the market volatility on momentum sorted portfolio. The forecasting role of the market volatility continues along with market state and variables of the business cycle. Just market state persists in reporting forecasting force for momentum effectiveness.

The sample consists of companies from Non-Financial Sector. The motive to study just Non-Financial Sector is that in the case of financial sector accounting year closes at December in Non-Financial Sector, accounting period closes down in June generally. Moreover, the capital structures of the financial and non-financial sector are different. Monthly and daily stock prices have been taken from Karachi Stock Exchange. T-bill and Government bonds are taken from International Financial Statistics of IMF.

The companies are listed in various sectors that include Automobile and Parts, Beverages, Chemicals, Construction and Materials, Electricity, Fixed Line Telecommunication, Food Producers, Gas Water and Multi-utilities, General Industrials, Health Care Equipment and Services, Household Goods, Industrial

Engineering, Industrial metals and Mining, Oil and Gas. This study uses time series regression based on OLS estimation technique.

This study is based on variables that include state of the market, volatility of market plus variables of the business cycle. Market volatility includes Vol+ and a Vol- and business cycle variable includes TERM, TERM2, and Yield. TERM is the difference of Treasury bill rate and Government bonds rates. Momentum is the difference between winner and loser. Momentum payoff is dependent variable and Market State, volatility of market and variables of the business cycle are independent variables. Secondly, this study regress Winner and Loser portfolios return on market state, market volatility and variables of the businesses cycle in perspective towards loser and winner (relative to the market) and loser and winner (adjusted by market). Then, dispersions of stock returns (RD1-3) is used to explore the impact of cross-sectional variation on momentum profit. RD1-3 is the three-month moving average of the cross-sectional standard deviation of return and it is taken as an independent variable. Finally, momentum payoffs are regressed on market state, market volatility and business cycle variables in UP and DOWN markets.

The various econometric models used in the study are explained as under:

### 3.1. Market State and Volatility

The role of market and volatility in explaining return is examined by using following equation:

$$\text{Eq. (1)} \\ \text{MOM}_t = \alpha_0 + \alpha_1 \text{MKT}_t + \alpha_2 \text{Vol}_t$$

Where,

MOM is the momentum payoffs of month's t. For calculating momentum, the stock is categorized in the portfolio on the base of past return. The time of ranking is as of whereas portfolios with lowest past returns are defined as loser portfolios. The portfolios with the top earlier period returns are defined as winner portfolios. Momentum payoffs are the difference of the return between the winner and loser portfolio.

It is further added that momentum portfolio returns are a difference of returns of winner and loser portfolio comprising 40 stocks, each separated by using median. The robustness of results has also been tested by findings momentum returns as the difference of extreme quartile.

$\text{MKT}_t$  = market return at month t.

$\text{Vol}_t$  = volatility of the market at time t captured by the standard deviation of returns last six months returns.



There is a possibility that response of the momentum return may be different in high and low return period. The same possibility is explained by using following equation:

$$\text{Eq. (2)} \\ \text{MOM}_t = \alpha_0 + \alpha_1 \text{MKT}_t + \alpha_2 \text{Vol}_t + \alpha_3 \text{Vol}_t^-$$

Where,

Vol<sub>+</sub> = volatility if lagged six-month market returns are positive otherwise zero.

Vol<sub>-</sub> = volatility of the lagged six market returns are negative otherwise zero.

### 3.2. Market state, market volatility, and business cycles

The study further adds the function of business's cycles in determining profits of momentum. The same has been investigated as following:

$$\text{Eq. (3)} \\ \text{MOM}_t = \beta_0 + \beta_1 \text{MKT}_t + \beta_2 \text{Volt}_t + \beta_3 \text{TERM}_t + \beta_4 \text{TERM}_{2t} + \beta_5 \text{YLD}_t$$

$$\text{Eq. (4)} \\ \text{MOM}_t = \beta_0 + \beta_1 \text{MKT}_t + \beta_2 \text{Volt}_t + \beta_3 \text{Volt}_t^- + \beta_4 \text{TERM}_t + \beta_5 \text{TERM}_{2t} + \beta_6 \text{YLD}_t$$

Where,

Term = difference of the yield between ten year Treasury bond and three-month Treasury bill.

Yield = yield on a Treasury-bill by three months towards maturity.

### 3.3. Discussion

The robustness of the model has also been tested by using market adjusted model. Hence examination of winner and loser has been calculated by subtracting market returns from the winners and losers portfolios:

$$\text{Eq. (5)} \\ \text{LoserMKT}_t = \beta_0 + \beta_1 \text{TERM}_t + \beta_2 \text{TERM}_{2t} + \beta_3 \text{YLD}_t + \beta_4 \text{MKT}_t + \beta_5 \text{Volt}_t$$

$$\text{Eq. (6)} \\ \text{WinnerMKT}_t = \beta_0 + \beta_1 \text{TERM}_t + \beta_2 \text{TERM}_{2t} + \beta_3 \text{YLD}_t + \beta_4 \text{MKT}_t + \beta_5 \text{Volt}_t$$

The basic model is also investigated in up and down markets as given below:

$$\text{Eq. (7)} \\ \text{Loser}_t = \beta_0 + \beta_1 \text{TERM}_t + \beta_2 \text{TERM}_{2t} + \beta_3 \text{YLD}_t + \beta_4 \text{MKT}_t + \beta_5 \text{Volt}_t + \beta_6$$

$$\text{Volt}_t^- \\ \text{Eq. (8)}$$

$$\text{Winner}_t = \beta_0 + \beta_1 \text{TERM}_t + \beta_2 \text{TERM}_{2t} + \beta_3 \text{YLD}_t + \beta_4 \text{MKT}_t + \beta_5 \text{Volt}_{++} + \beta_6 \text{Volt}_{--}$$

The behavior in up and down market is explained by using following model:

$$\text{Eq. (9)} \\ \text{LoserMKT}_t = \beta_0 + \beta_1 \text{TERM}_t + \beta_2 \text{TERM}_{2t} + \beta_3 \text{YLD}_t + \beta_4 \text{MKT}_t + \beta_5 \text{Volt}_{++} + \beta_6 \text{Volt}_{--}$$

$$\text{Eq. (10)} \\ \text{WinnerMKT}_t = \beta_0 + \beta_1 \text{TERM}_t + \beta_2 \text{TERM}_{2t} + \beta_3 \text{YLD}_t + \beta_4 \text{MKT}_t + \beta_5 \text{Volt}_{++} + \beta_6 \text{Volt}_{--}$$

It is further added that square of the term is added to see the possibility of non-linear behavior.

### 3.4. Potential explanations: Return dispersion

Literature provides that market's volatility measuring the time-series variant in the total marketplace and returns dispersal measuring the cross-sectional variant in stock return. So, the phenomenon is also explained by using:

$$\text{Eq. (11)} \\ \text{MOM}_t = \alpha_0 + \alpha_1 \text{RD1-3}$$

$$\text{Eq. (12)} \\ \text{MOM}_t = \alpha_0 + \alpha_1 \text{MKT} + \alpha_2 \text{Vol} + \alpha_3 \text{RD1-3}$$

The impact of the business cycle on momentum in the presence of time series variation and cross-sectional variation is examined by using following regression method:

$$\text{Eq. (13)} \\ \text{MOM}_t = \beta_0 + \beta_1 \text{TERM}_t + \beta_2 \text{TERM}_{2t} + \beta_3 \text{YLD}_t + \beta_4 \text{MKT}_t + \beta_5 \text{Volt}_{++} + \beta_6 \text{RD1-3}$$

$$\text{Eq. (14)} \\ \text{MOM}_t = \beta_0 + \beta_1 \text{TERM}_t + \beta_2 \text{TERM}_{2t} + \beta_3 \text{YLD}_t + \beta_4 \text{MKT}_t + \beta_5 \text{Volt}_{++} + \beta_6 \text{Volt}_{--} + \beta_7 \text{RD1-3}$$

Where,

RD1-3= three months moving an average of the cross-sectional standard deviation of the returns of the portfolio.

#### 4. Results and Discussion

##### *Impact of Market Return and Volatility on Momentum Profit*

Table 4.1.1 reports the results of regression analysis used to study the impact of volatility and market returns on momentum profits. Momentum payoff is taken as dependent variable and market state, market volatility (Vol, Vol+, and Vol-) are independent variables. This study uses the different structure of momentum portfolio for robustness checks. For each regression, intercepts, beta coefficients, t-statistics (in parentheses), adjusted R-squares and Prob(Wald F-statistic) are reported. Results of stepwise regressions are presented below:

*Table 4.1.1: Impact of Market Return and Volatility on Momentum Profit*

C	MKT	Vol	Vol+	Vol-	Adj-R <sup>2</sup>	P (Wald F-stat)
<i>I. Market state and volatility (50%)</i>						
0.065**	-0.127**	-0.154**			0.0216	0.0168
(8.122)	(-2.648)	(-1.826)				
0.073*	-0.110		-0.345*	-0.150*	0.0239	0.0017
(8.518)	(-2.155)		(-2.921)	(-2.036)		
<i>II. Market state and volatility (25%)</i>						
0.103*	-0.213*	-2.237*			0.0251	0.0061
(8.041)	(-3.059)	(-1.540)				
0.117*	-0.185*		-0.564*	-0.229*	0.0293	0.0006
(9.047)	(-2.481)		(-3.038)	(-1.765)		

In I phase momentum is calculated on the difference between 50% winners and 50% losers and momentum payoff is regressed on market return and volatility. Market premium is significant and negative whereas market volatility is found negatively influencing momentum profits. However, when volatility is divided into volatility in the positive market and volatility in the negative market both are significantly and negatively influencing momentum profits. The results are in line with earlier studies that high volatility is followed by low momentum profits.

The same process is repeated for II phase, momentum payoffs calculated by using the difference of 25% winners and 25% losers. Both MKT and Vol are significant, indicating that both variables have the capability to forecast momentum profits. Table 4.1.1 presents the results of regressions with market state and market volatility as the independent variable. Here, the momentum payoff is calculated at 50% and 25% to test the robustness of results. The model is found to be fit because F- Statistics are significant.

This study does not contradict the predictive power of the market state. This view is that market volatility and market state when combined together; provide a useful indicator of market conditions. The predictive power of market volatility is more evident in down markets. Although Vol+ and Vol- both have negative signs, Vol- is

dominant in terms of the magnitudes of the coefficient and the t-statistic. The explanatory power of the model remains low as all other factors that influence the returns have not been included in the model because the objective of the study is sole to explore the relationship between volatility and momentum. In both test, at 50% and 25%, results are same indicating the robustness of results.

#### ***Impact of Market State and Market Volatility, and Business Cycles on Momentum***

Table 4.1.2 reports the results of regression analysis conducted to explore the impact of market state, volatility and business cycle on market return. When momentum payoffs are taken as dependent variable and market state, market volatility and business cycle variables (TERM, TERM2, and YLD) are independent variables. This study uses alternative measures of momentum profitability for robustness checks. For each regression, intercepts, beta coefficients, and robust t-statistics (in parentheses), adjusted R-squares and Prob (Wald F-statistic) are reported. Results of regression are presented below:

*Table 4.1.2: Impact of Market State and Market Volatility, and Business Cycles on Momentum*

C	MKT	Vol	TERM	TERM <sup>2</sup>	YLD	Adj-R <sup>2</sup>	P(Wald F-stat)
<i>I. Regular momentum construction (50%)</i>							
0.059**	-	-	-		0.114	0.0107	0.0320
	0.121**	0.168**	0.171**				
	(3.986)	(-1.967)	(-0.406)		(0.711)		
0.058**	-	-	-	7.176**	0.128**	0.0036	0.0291
	0.121**	0.170**	0.202**				
	(2.824)	(-2.046)	(-0.543)	(0.159)	(0.620)		
<i>II. Regular momentum construction (25%)</i>							
0.097**	-	-	-		0.111	0.0119	0.0183
	0.207**	0.247**	0.051**				
	(4.128)	(-1.571)	(-0.086)		(0.410)		
0.089**	-	-	-	42.633	0.194	0.0059	0.0220
	0.207**	0.257**	0.234**				
	(2.823)	(-1.638)	(-0.499)	(0.622)	(0.579)		

The results in section I of table 4.1.2 indicate that market returns and market volatility have a significant influence on momentum payoffs. The signs of market state and market volatility are negative and significant indicating the momentum payoffs are inversely related to market returns and market volatility. It means when market returns increase or volatility increases, momentum payoff decrease. Business cycle effect measured by term and yield is not found significant. Similarly, non-linearity has not been observed regarding the term. The robustness of the model has also been tested by using momentum profits measured by using the difference of top 25% winners and top 25% losers. The market state is found to effect significantly whereas volatility has same sign but is now significant at approximately 90% level of significance.

Table 4.1.2 also presents the results of regressions analysis regarding the impact of business cycle variables, market volatility, and market state on momentum profitability. The robustness of the basic results has also been tested by using the return of momentum profit comprising of the difference of 50% stock or top 25% stocks of winners and losers portfolios. Table 4.1.2 examine the rate of the macroeconomic variables in explaining momentum. The explanatory power of the model is low as all other factors that influence the returns have not been included in the model because the objective of the study is exclusive to explore the relationship between volatility and momentum. In both conditions, at 50% and 25% results are same. The model is found to be fit.

The results indicate that market state is significant and negative which is consistent with results reported in table 4.1.1 and 4.1.2. Market volatility is negative but insignificant, however, volatility in the positive market has significant influence whereas volatility in the negative market has an insignificant impact on momentum payoffs. The yield has significant and positive effect whereas term and terms are found insignificantly influencing momentum payoffs. The results are found robust when momentum payoffs are calculated by using the difference of top 25% winners and top 25% losers. The model is found fit the explanatory power of the model is found low as model considers only volatility and the business cycle and ignores fundamentals. The results are to focus on the volatility and momentum dynamics. In sum, both Table 4.1.1 and Table 4.1.2 show that market volatility has robust predictive power in the presence of market state and macroeconomic variables. This study also notices that in all cases the predictive power of market volatility is more pronounced in down markets.

#### ***Impact of Market State and Market Volatility and Business Cycles on Market Adjusted Momentum Payoff***

Table 4.1.3 reports the results of regression analysis when market adjusted momentum payoff are taken as dependent variable and market state, market volatility and business cycle variables (TERM, TERM2, and YLD) are independent variables. This study uses alternative measures of momentum profitability for robustness test. Momentum adjusted portfolio is calculated by subtracting market returns from momentum returns. For each regression, intercepts, beta coefficients, robust t-statistics (in parentheses), adjusted R-squares and Prob (Wald F-statistic) are reported. Results of regression are presented below:

*Table 4.1.3: Impact of Market State and Market Volatility and Business Cycles on Market Adjusted Momentum Payoff*

C	TERM	TERM <sup>2</sup>	YLD	MKT	Vol	Vol+	Vol-	Adj-R <sup>2</sup>	P(Wald F-stat)
<i>I.MOM-Adjusted (50%)</i>									
0.038*				-0.139*	-0.018*			0.0147	0.0110
(3.705)				(-2.873)	(-0.143)				
0.053*				-0.108*		-0.371*	-0.010*	0.0369	0.0001
(5.450)				(-2.032)		(-2.783)	(-0.124)		
-0.006*	0.336*		0.688*	-0.105*	-0.064*			0.0602	0.0000
(-0.340)	(0.661)		(3.609)	(-2.026)	(-0.640)				
-0.001*	0.462*	-	0.631	-0.105*	-0.057*			0.0546	0.0000
(-0.028)	(1.067)	29.397*	(-0.601)	(-2.030)	(-0.593)				
<i>II.MOM-Adjusted (25%)</i>									
0.076*				-0.225*	-0.100*			0.0199	0.0069
(5.270)				(-3.190)	(-0.525)				
0.098*				-0.183*		-0.590*	-0.090*	0.0371	0.0003
(7.299)				(-2.373)		(-3.095)	(-0.661)		
0.032*	0.456*		0.686*	-0.191*	-0.143*			0.0306	0.0018
(1.262)	(0.725)		(2.362)	(-2.586)	(-0.843)				
0.031*	0.430*	6.060	0.697*	-0.191*	-0.144*			0.0236	0.0045
(0.922)	(0.817)	(0.086)	(1.954)	(-2.577)	(-0.860)				

Table 4.1.3 reports results of regressions analyses the same as Table 4.1.1 and Table 4.1.2 and further add some business cycle variables the same as Table 4.1.2. This table uses market, momentum profit and market volatility, market state, and the business cycle. The purpose is the same to establish the robustness of the basic results for profits constituted by using top 50% and 25% stocks from winners and losers. The phase I and II results indicate that market state and market volatility have a significant influence on adjusted momentum payoffs. The signs of market state and market volatility are negative and significant indicating the momentum payoffs are inversely related to market returns and market volatility. It means when market returns increase or volatility increases, momentum payoff decreases. Business cycle effect measured by term and yield is not found significant. Similarly, non-linearity has not been observed regarding the term. The model is found a fit.

#### ***Impact of Market State and Market Volatility, and Business Cycles on Market Adjusted Loser Portfolio***

Table 4.2.1 report the impact of market state, market volatility, and business cycle variables on market adjusted lower returns. The definition of these variables is the same as explained earlier. Portfolio returns are adjusted by the market. The sample period is from 2003-2015 and study report intercepts, regression coefficients, robust t-statistics

(in parentheses), adjusted R-squares and Prob(Wald F-statistic). Results are given below:

*Table 4.2.1: Impact of Market State and Market Volatility, and Business Cycles on Market Adjusted Loser Portfolio*

C	TERM	TERM <sup>2</sup>	YLD	MKT	Vol	Vol+	Vol-	Adj-R <sup>2</sup>	P(Wald F-stat)
<i>Loser (adjusted by market) 50%</i>									
-0.025*				-0.816*	-0.009*			0.3536	0
(-1.624)				(-10.129)	(-0.05)				
-0.023*				-0.813*		-	-0.008*	0.3491	0
(-1.334)				(-9.894)		0.046*	(-0.04)		
0.018*	-1.158*		-0.578*	-0.842*	0.006*			0.3609	0
(0.638)	(-0.945)		(-1.587)	(-10.235)	(0.039)				
-0.011*	-1.875*	166.474*	-0.257*	-0.842*	-0.032*			0.3713	0
(-0.359)	(-1.810)	(1.581)	(-0.623)	(-10.577)	(-0.19)				
<i>Loser (adjusted by market) 25%</i>									
-0.040*				-0.755*	-0.011*			0.2561	0
(-2.326)				(-8.238)	(-0.05)				
-0.0411*				-0.756*		0.004*	-0.011*	0.2508	0
(-2.112)				(-8.255)		(0.015)	(-0.05)		
0.001*	-1.105*		-0.562*	-0.780*	0.005*			0.2588	0
(0.022)	(-0.795)		(-1.422)	-8.312	(0.023)				
-0.011*	-1.875*	166.474*	-0.257*	-0.842*	-0.032*			0.3713	0
(-0.359)	(-1.810)	(1.581)	(-0.623)	(-10.577)	(-0.19)				

Table 4.2.1 present that market state has a significant negative relationship with market adjusted has loser portfolios. Market increase loser returns decrease. The results are robust for loser portfolios capturing of lower 50% stocks as well as lowest 25% stocks. Volatility significant in all cases but the behavior of volatility is same for positive and negative market state.

Moreover, its impact does not change with the change in the computation of loser portfolio. The term is found significant at  $\alpha = 0.1$ . As term spread increase, returns of loser portfolio decrease. The explanatory power of the model remains 25% to 37% and model is found correctly specified. The behavior of the variable is consistent for market adjusted loser portfolio irrespective of the fact that these are found by using 50% loser stocks or 25% loser stocks.

### ***Impact of Market State and Market Volatility, and Business Cycles on Market Adjusted Winner Portfolio***

The study regress market state, market volatility, and business cycle variables on market adjusted winner portfolio returns. Portfolio returns are adjusted for the market return. Results are given below in table 4.2.2.

*Table 4.2.2: Impact of Market State and Market Volatility, and Business Cycles on Market Adjusted Winner Portfolio*

C	TERM	TERM <sup>2</sup>	YLD	MKT	Vol	Vol+	Vol-	Adj-R <sup>2</sup>	P(Wald F-stat)
<i>Winner (adjusted by market) 50%</i>									
0.040*				-0.943*	-0.163*			0.4700	0
(3.154)				(-11.14)	(-1.173)				
0.050*				-0.923*		-0.391*	-0.158*	0.4707	0
(2.943)				(-10.61)		(-1.46)	(-0.99)		
0.077*	-1.330*		-0.464*	-0.963*	-0.162*			0.4756	0
(3.270)	(-1.229)		(-1.441)	(-11.54)	(-1.162)				
0.047*	-2.077*	173.650*	-0.129*	-0.963*	-0.202*			0.4877	0
(2.042)	(-2.261)	(1.768)	(-0.370)	(-11.77)	(-1.408)				
<i>Winner (adjusted by market) 25%</i>									
0.062*				-0.968*	-0.247*			0.3882	0
(4.238)				(-10.21)	(-1.705)				
0.0762*				-0.941*		-0.560*	-0.240*	0.3903	0
(3.837)				(-9.322)		(-1.81)	(-1.47)		
0.097*	-1.156*		-0.451*	-0.988*	-0.242*			0.3882	0
(3.497)	(-0.848)		(-1.186)	(-10.81)	(-1.579)				
0.061*	-2.063*	210.556*	-0.044*	-0.988*	-0.291*			0.4020	0
(2.046)	(-1.790)	(1.598)	(-0.102)	(-11.05)	(-1.778)				

Table 4.2.2 exhibits that market returns have a significant and negative impact on returns of the market adjusted portfolio. Volatility is significant and insignificant irrespective of the fact that the portfolio compares of 50% stocks or 25% stocks. In the positive state of the market impact of Vol+ is negative and lower on winner portfolio comprising top 25% stock and thus impact is increased and significant at 90% level of significance for a portfolio comprising top 25% stock. The same tendency is observed of Vol- but results remain insignificant. It leads to the idea that Vol may be influencing the extreme winners. From business cycles variables, yield exhibits an insignificant influence whereas yield is significant and negative for winner portfolio comprising top 25%, but this relationship weakens for 25% winners stocks. However, no non-linearity is observed in the behavior of the terms. The explanatory power of the model ranges from 38% to 49%. The results indicate that volatile markets forecast low returns on winners stocks.



**Impact of Cross Sectional Variation or Time Variation on Momentum Profits**

Table 4.3.1 reports the results of regression analysis. When momentum payoffs are taken as the dependent variable and market state, market volatility, business cycle variables (TERM, TERM2, and YLD) and return dispersion (RD1-3) are independent variables. This study examines whether stock return dispersion (RD1-3); can absorb the predictive power of market volatility on momentum profitability. The regressors MKT, Vol, Vol+, and Vol- are the same as explained earlier. Results for intercepts, regression coefficients, and robust t-statistics (in parentheses), adjusted R-squares and Prob (Wald F-statistic) are reported below:

*Table 4.3.1: Impact of Cross Sectional Variation or Time Variation on Momentum Profits*

C	TERM	TERM <sup>2</sup>	YLD	MKT	Vol	Vol+	Vol-	RD <sub>1-3</sub>	Adj-R <sup>2</sup>	P(Wald F-stat)
<i>Return dispersion 50%</i>										
0.121**								-	0.0537	0.0858
(2.929)								2.926**		
0.131**				-	-			(-1.73)	0.0733	0.0186
(3.204)				0.121**	0.149**			2.856**		
0.131**				(-2.58)	(-1.96)			(-1.76)	0.0605	0.0558
(2.577)	0.161**		0.017**	0.120**	0.155**			2.829**		
0.132**	(-0.486)		(0.086)	(-2.39)	(-1.957)			(-1.67)	0.0537	0.0560
(2.319)	-	-7.451**	0.002**	-	-			-		
0.139**	0.129**		(0.008)	0.120**	0.153**			2.838**		
(2.319)	(-0.468)	(-0.176)	(0.008)	(-2.38)	(-1.98)			(-1.65)	0.0463	0.0185
0.139**	-		-	-	-			-		
(2.713)	0.249**		0.022**			0.359**	0.157**	2.748**		
0.140*	(-0.70)		(-0.107)			(-2.54)	-2.034	(-1.58)	0.0393	0.0089
(2.415)	-0.239*	-2.251*	-0.026*			-0.358*	-0.157*	-2.751*		
(2.415)	(-0.74)	(-0.050)	(-0.103)			(-2.56)	(-2.083)	(-1.54)		
<i>Return dispersion 25%</i>										
0.183*								-4.220*	0.0445	0.1031
(2.903)								(-1.64)		
0.199*				-0.205*	-0.229*			-4.104*	0.0675	0.0104
(3.165)				(-2.985)	(-1.64)			(-1.664)		
0.201**				-	-			-	0.0540	0.0377
(2.575)	0.036**		0.030**	0.206**	0.228**			4.123**		
0.197**	(-0.065)		(-0.091)	(-2.902)	(-1.54)			(-1.607)	0.0474	0.0665
(2.231)	-	21.508**	0.012**	-	-			-		
0.218**	0.128**		(0.029)	0.206**	0.233**			4.098**		
(2.724)	(-0.316)	(0.286)	(0.029)	(-2.890)	(-1.577)			(-1.552)	0.0392	0.0151
0.212**	-		-	-	-			-3.968		
(2.724)	0.209**		0.116**			0.612**	0.230**	(-1.497)	0.0328	0.0188
0.212**	(-0.370)		(-0.327)			(-2.732)	(-1.765)	(-1.497)		
(2.340)	-	31.563**	-	-	-	-	-	-		
0.212**	0.349**		0.057**			0.625**	0.237**	3.929**		
(2.340)	(-0.690)	(0.400)	(-0.130)			(-2.818)	(-1.837)	(-1.430)		

Table 4.3.1; explores potential explanations for the predictive power of market volatility for momentum profitability. In this study, another variable the cross-sectional stock return dispersion proposed by (Stivers and Sun (2010)) is used. Stivers and Sun (2010) find that cross-sectional return dispersion negatively predicts momentum performance. Following them, in this study calculate the three-month moving average of the cross-sectional standard deviation of the returns, denoted by RD1-3. While the two variables are highly correlated, market volatility and return dispersion are conceptually different.

Market volatility measures time-series variation of the overall market return. Return dispersion measures the cross-sectional variation in stock returns is also found significant at 90% level of significance.

The results, reported in Table 4.8, confirm that RD1–3 has predictive power with the right sign. When used alone, it has a significant t-statistic of 90% level of significance. The adjusted R-square is 0.5%. However, when MKT and Vol are included, the t-statistic of RD1–3 rises to -1.761. Adding business cycle variables does not save the predictive power of RD1–3. Similarly, in the presence of Vol+ and Vol–, the significance of RD1–3 also decreases. Therefore, although market volatility is not correlated with return dispersion, some of the predictive power of market volatility is not derived from return dispersion. In this case, the explanatory power of the model remains generally low as all other factors that influence the returns have not been included in the model because the objective of the study is sole to explore the relationship between volatility and momentum. The results are found robust for different measures of return dispersion. The model is found to be fit because F-Statistics is significant.

## 5. Conclusion

The purpose of this study is to explore the relationship between market volatility and momentum profitability by using KSE data. For this purpose, 80 companies are taken from 14 on- financial sector of KSE. The range of data is from 2003-2015. Momentum portfolios have been created by using top 25% and lowest 25% as well as top 50% and lowest 50%. However, volatility is the dispersion, so it may be on the positive side or negative side. It may be different in positive market state and negative market state. The market does not work in isolation. The macroeconomic dynamics especially business cycle variables are influencing the market. All major variables explore in this study. According to Wang and Xu (2015), Volatility is a central indication in capital markets. The aim of this study is to check out the role of market volatility in characterizing time series variations in momentum payoffs and execute different tests and disclose a robust and significant relationship among market volatility and momentum. The tests create a broad summary of time varying momentum performance, exhibiting that the time series predictability of momentum is relatively changed from cumulative stock market predictability.

This study examines whether market volatility has explanatory power for momentum as well as this study executes different tests and the results show that there exists a robust relationship among market volatility and momentum. Market volatility and market state balance each other and both markets present a robust empirical description of the time variation in momentum payoffs. Their predictive power can be exploited to boost the momentum profitability. The challenge is how to realistically clarify why these variables predict momentum. The signs of market state and market volatility are negative and significant indicating the momentum payoffs are inversely related to

market returns and market volatility. It means when market returns increase or volatility increases, momentum payoff decrease. Business cycle effect measured by term and yield is not found significant. Non-linearity has not been observed regarding the term. The market state is found to affect significantly.

Investors can earn excess returns on the basis of past market returns. These returns give an indication of the future movement in the company's stock returns. Investors can earn higher returns by investing in small companies. The negative relationship indicates that there is high volatility in the market. Its mean momentum returns will decrease in future. Investors should be taking into account that volatility is a leading indicator that the momentum strategy will be beneficial in the future. Momentum strategies plan according to market conditions.

With the changing conditions of the market business cycle cannot be overlooked. During the period of the high rate of interest momentum profits will decrease. During the period of low-interest rate momentum profits will rise. When going to making a decision then consider that during on which side average yield rate of return is more. The market, business cycle, and volatility depend on investor's momentum strategies. The benefits of momentum strategy on that time will be purposeful when momentum profits will be increased. The things that decrease momentum profit, on that time momentum strategy should not adopt. If volatility increases then enter into winner portfolio strategies.

The study recommends that investors should devise investment and momentum strategies on the basis of the volatility of stocks and business cycle variables. As volatile and stable stock have different market returns, so efficient market hypothesis can be formed. In the absence of significant factors, market returns will be low that may lead to a sub-optimal decision while evaluating new projects. Existing study on the relationship between market volatility and momentum are mostly conducted in developed countries. This study provides insight into the momentum strategies, market volatility, and business cycle variables in emerging markets like Pakistan. The same model may be tested in other emerging markets so that consistency of the result is ensured.

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## A Research Framework for Antecedents to Interpersonal Trust Development from Organizational Perspective

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### Abstract

The researchers from a number of fields and disciplines have analyzed the role of trust as one of the most significant factors affecting the organizational performance. Trust facilitates and moderates the impact of other variables on employee-performance or organizational behavior; since it builds up the grounds over which the foundation of certain expected outcomes and results can be laid on. Due to increasing importance of trust, there has been a rigorous focus of researchers, academicians and practitioners to identify the antecedents to trust i.e. the factors that increase or decrease the extent of trust in organizational settings. This paper presents a research framework of the antecedents to interpersonal trust development from an organizational perspective, in the light of the existing literature and available empirical evidence to help the researchers, academicians and practitioners to identify the determinants of interpersonal trust development. We believe that the constructs identified in this paper will help the researchers to develop the models of trust building and provide guidelines for meaningful and valuable research in future in the domain of trust development.

**Keywords:** Trust, Commitment, Religiosity, Shared Values, Organizational justice.

### Introduction

Trust is one of the constructs that have achieved wide recognition from scholars and academicians from all over the world across fields and disciplines ranging from organizational behavior Zaheer, McEvily, and Perrone (1998); strategic management Barney and Hansen (1994); social psychology Lewicki and Bunker (1996) to economics Williamson (1993) and international business (Inkpen & Currall, 1997). This is perhaps because trust provides the foundation for any productive and successful interpersonal and professional relationship among individuals and organizations (Mayer, Davis, & Schoorman, 1995). Many scholars e.g. (Zak & Knack, 2001) believe that a nation's economic progress and global business growth is highly influenced by the extent of trust. Moreover, trust provides the basis for all human systems of ethics and morality Buchan, Croson, and Dawes (2002) and according to Putnam (2001), it is the very foundation of society and civilization and key to human progress in almost <https://doi.org/10.30537/sijmb.v4i1.106>

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every walk of life. This is why Arrow (1974) calls trust “important lubricant for human society”.

Researchers on trust have highlighted the importance of trust in numerous dimensions: for instance, it can increase the satisfaction level of employees, performance and problem-solving capability (Butler Jr (1999); Zand, 1972), can improve communication and enhance job commitment (Mayer & Gavin, 2005) and can create citizenship behavior (Akbar, 2010). It can also improve team performance Dirks (2000), knowledge sharing Levin and Cross (2004), manager subordinate working relationships and organizational ability to take on to complexity and volatility of the business environment (Kramer, 1999). To achieve competitive advantage, organizations need to have resources that are rare, valuable and inimitable. So is the case of trust, which is a very important source for organizations to achieve competitive advantage Bashyakar (2010). Since it is rare, valuable and cannot be imitated by other organizations, from an inter-organizational perspective, trust plays the role of cost reducing and value enhancing factor through more productive and effective collaboration and sharing of information within the organizations Madhok (2006) and paving way for expanding a number of potential business associates (Zaheer et al., 1998). From intra-organizational perspective, the extant literature posits a positive association between trust and collaborative working, within various organizational units, departments and divisions. While investigating the antecedents of organizational cooperation, Smith, Carroll, and Ashford (1995) found trust as a cardinal factor for ensuring cooperation within various units of organizations. Subsequently, Dirks and Ferrin (2002) after investigating the impact of trust on organizational functioning, in the light of existing literature, conceptualized trust as directly or indirectly influencing factor on a number of organizational performance and behavior oriented outcomes. They argue that trust facilitates and moderates the impact of other variables on employee-performance or organizational behavior; since it builds up the grounds over which the foundation of certain expected outcomes and results can be laid on. In another effort to analyze the influence of trust in organizational settings, McEvily, Perrone, and Zaheer (2003) portray trust as a fundamental element for ensuring coordination to perform various organizational activities.

### **Conceptualization of Trust**

In the view of Brewer and Brown (1998) trust is “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another”. In other words, it can be said that trust is the willingness of a person to be defenseless to others, with the assumption that other fellows are trustworthy (Schoorman, Mayer, & Davis, 2007). Reliance and risk tend to be interlinked with trust. Reliance shows one person’s willingness to let his fate be decided by the other. Risk involves that one party can potentially experience negative outcome, due to untrustworthy and unprincipled behavior of the second party. Trust is

irrelevant without risk, since there is no vulnerability without risk (Luo, 2002). Trust has two dimensions: calculative and relational (Inkpen & Currall, 1997). Calculative trust which is also named as cognitive trust tends to be short-run oriented trust, based on the hope or belief of one person that the other will act in a beneficial and positive way. On the contrary, relational or affective trust builds as a result of recurrent connections between two parties over a period of time. Affect-based or relational trust tends to be a long-run oriented trust, based on a feeling of emotional attachment, which develops after frequent interactions between the two parties; since repeated interactions lead to the cultivation of passionate bond based on reciprocal care and concern (McAllister, 1995).

Generally, individuals base their trust on others through their observations of certain features/qualities of the individuals. Researchers have identified a number of variables to be used for the evaluation of trustworthiness e.g. integrity, competence, openness, discreteness and receptivity etc. Butler Jr (1999), but, they can be precisely grouped into three categories: perceptions of the trustee in the “ability or competence”, “benevolence”, and “integrity” of the trustee (Mayer et al., 1995).

### **Antecedents to Interpersonal Trust Development**

Despite growing focus of researchers on the study of antecedents to trust development, a lot of work needs to be done Katinka and Paul (2003) in this field, keeping in view the increasing benefits of interpersonal and organizational trust. Because the study of trust in the existing literature is not free of problems and issues due to some inconsistencies and variations in the way trust has been defined and conceptualized by the researchers (Dirks & Ferrin, 2002). A notable criticism from some scholars in this connection refers to the absence of convergence on the nature and structure of trust, particularly with respect to the inability of the researchers and academicians to differentiate between the very constructs and antecedents of trust (Mayer et al., 1995). The researchers seem to overlap the basic constructs/facets or underlying assumptions of trust with antecedents to trust. For instance, according to Costa (2001) trust is a multi-dimensional construct consisting of three interrelated facets including perceived trustworthiness, propensity to trust and monitoring of behaviors, whereas propensity to trust, according to Gill, Boies, Finegan, and McNally (2005) more accurately, might be conceptualized as an antecedent to trust instead of a dimension of the same. On the other side, trustworthiness has also been discussed as an antecedent to trust development instead of a dimension (Lewicki & Bunker, 1996)

Moreover, most of the studies in the domain of antecedents to trust are focused on different dimensions of organizational trust. For example, antecedents to organizational trust Gulati (1995), antecedents of trust in managers Katinka and Paul (2003), antecedents to trust in virtual communities Ridings, Gefen, and Arinze (2002) antecedents to inter-organizational trust Gill et al. (2005); just to mention a few.



However, there is limited number of studies focusing on antecedents to interpersonal trust. Literature about the antecedents to interpersonal trust covers a big list of antecedents including for example: commitment (Butler Jr, 1999); loyalty (H. H. Tan & Chee, 2005); confidentiality (Butler Jr, 1999; H. H. Tan & Chee, 2005), dependability (Rempel, Holmes, & Zanna, 1985); reliability (H. H. Tan & Chee, 2005); responsibility (Butler Jr, 1999), affect (Lewicki & Bunker, 1996); group similarity (Brewer & Brown, 1998); propensity to trust (Rempel et al., 1985), reciprocity (Wasti, Tan, & Erdil, 2011) and shared values (Cazier, Shao, & Louis, 2006) etc. However, it is more appropriate to discuss the antecedents that are more relevant to the current study which focuses on the development of interpersonal trust within organizations among organizational members.

#### **a. Trustworthiness**

Trust development refers to individuals' experiential process of knowing about others' level of trustworthiness, based on the interaction with them over a period of time (Mayer et al., 1995). Numerous researchers have proposed trustworthiness as a strong factor influencing trust development (e.g. (Lewicki & Bunker, 1996); (McAllister, 1995)). Mayer et al. (1995), posit perceived trustworthiness as an important cognitive antecedent of trust. Researchers from multiple disciplines concur that people develop trust because of repeated social interactions, which help them in updating their information about the level of trustworthiness of others (e.g. (Zand, 1972); (Mayer et al., 1995)). Previous research on trust from organizational perspective, suggests competency and responsibility as fundamental elements for trustworthiness (Butler Jr, 1999). Dependability and reliability have also been included in the list of the antecedents of interpersonal trust (Rempel et al., 1985). Expectations of dependability and reliability need to be met for cultivating and prospering trust based relationships Zucker (1986) and lack of the same provides a rational ground for ending up trust-based relationship (Luhmann, 1979). Researchers have identified as many as ten facets of perceived trustworthiness; including dependability, reliability, responsibility and predictability etc. (Butler Jr, 1999; Mishra, 1996). However, three antecedents to trust development have received the attention of maximum number of scholars and researchers in the literature of trust development: "benevolence", "ability" and "integrity" (Hardin, 2002; Mayer et al., 1995; McAllister, 1995).

**Benevolence**, includes feelings of kindness, goodwill, magnanimity and compassion of trustor towards trustee (Mayer et al., 1995). According to Hardin (2002) and Das and Teng (1998), benevolence can be referred to as the product of goal congruence or common objectives, or the confidence achieved from the commonality of interests. Others have linked benevolence to the extent to which one party is sincere in safeguarding the welfare and well-being of the other party to achieve maximum collective benefits (Rempel et al., 1985). Benevolence is akin to McAllister (1995) conceptualization of affect-based trust, which results from the feelings of deep care and concern of one party toward the other.

**Ability** refers to the faith of trustor in the trustee that he or she has the capability and resources to undertake a particular duty or perform a certain task (Butler Jr, 1999). Regardless of the spirit and hardworking of a person, the possibility of success is little and trust is not guaranteed, if that person is not capable of accomplishing that task or duty. Ability is parallel to McAllister (1995) conceptualization of peer dependability and reliability, which refers to the capability of trustee to commit, deliver and perform as per the expectation and promise.

**Integrity** means the perceived honesty and moral strength of trustee. Trustees having integrity are perceived to be more likely to dispose in fair and honorable manner with respect to their fulfilment of commitments and promises without cheating or manipulating. Thus, individuals are likely to build trust on those who possess integrity and commitment (Zolin, Hinds, Fruchter, & Levitt, 2004).

#### **b. Propensity to Trust**

Propensity to trust indicates individuals' tendency of being optimistic or pessimistic towards people's actions and behaviors (DeNeve & Cooper, 1998). People with high propensity to trust, possess positive intentions about other fellow-beings and think that others are good, fair, sincere and trustworthy, whereas people keeping low propensity to trust possess negative feelings about others and feel that others are unfair, selfish and untrustworthy (Shaw, 2001). Mayer et al. (1995), note that the propensity to trust is a very important indicator of one's trustworthiness, since different people tend to exhibit different levels of propensity to trust due to various environmental and cultural influences on their personalities. Propensity to trust, beyond interpersonal relationship, has been a significant factor in a variety of collectively desirable social activities such as car-pooling, commuting and public transportation (Van Lange et al., 1997). Propensity to trust is also influenced by individuals' approach to trust someone or not. Knowing the characteristics of both trustor and trustee helps understand the relationship between the two and the underlying reasons or logic to trust.

#### **c. Affect**

Numerous researchers from the fields of organizational theory, psychology and sociology, have emphasized affect as one of the crucial factors influencing trust e.g. (Lewicki & Bunker, 1996). These scholars argue that affective connections take the shape of care, sincerity and benevolence that cultivate trust McAllister (1995), whereas emotional responses of individuals (e.g., happiness, fury, silence or frustration), gauge their feelings and levels of trust for others. Researchers, conceptualizing trust development as a "discrete process" composed of multiple stages, posit affect as a very powerful factor for cultivating higher and deeper levels of trust e.g. (Lewicki & Bunker, 1996). Usually, trust built on affect, tends to be stronger and unshakeable over time, across favorable or unfavorable situations and even after small misunderstandings and violations (McAllister, 1995). For example, Rempel et al. (1985), suggest that 'faith' which tends to be the deepest level of trust, needs a truthful relationship, emotional

attachment or affective investment of care and concern. Similarly, trust based on 'care and concern' tends to be deeper and long lasting and the one built on cognitive feelings of reliability, predictability and dependability (McAllister, 1995).

#### **d. Social Group Membership**

Social group affiliation is an important antecedent of trust development. People generally possess positive perceptions and feelings for the group. They tend to be associated with Brewer (1979), irrespective of their good or bad feelings, thoughts and beliefs about other groups. Two aspects affect trust-related views of individuals for other groups: first, people's own group memberships Turner, Hogg, Oakes, Reicher, and Wetherell (1987) and second, the interdependence that occurs between groups e.g. (Brewer & Brown, 1998). Group interdependence is suggested as an important factor of feelings and beliefs for other groups. Self-categorization and social categorization Turner et al. (1987) are the fundamental psychological processes, which influence trust development with respect to group membership. Social categorization denotes the process of grouping or ungrouping of individuals based on age, gender, profession, community or ethnicity (Turner et al., 1987). Trust development tends to be heavily influenced by social categorization through category-driven mechanism, a cognitive process that provides a shortcut to individuals to decide which group to trust and which not; which people to rely on and which not (Hilton & Von Hippel, 1996). Categorization or grouping is a kind of default mechanism that can help an individual to decide about building up trust when he or she feels confused whether to trust or not due to pressure of time or judgment issue. For example, "when an individual is distracted or attending to cues in the situation other than group membership, behaviors reflecting aversion or fear of out-group members are more likely to appear" (Brewer & Brown, 1998).

In-group and out-group phenomenon is important in the current discussion. The group to which people belong is called an in-group and the group which is viewed in comparison to that group is called out-group. Individuals making contrasts with and making judgments about other groups usually try to keep positive depiction of their group Tajfel and Turner (1986) which actually contributes toward upholding their self-esteem (Turner et al., 1987). Based on the social identity theory, extant literature suggests that individuals' positive feelings about their group or group members, influence trust building and cooperation (Kramer, 1999). For instance, a sense of assistance increases in social dilemma experiments when an employee for example, comes to know about common identity of a person he works with (Kramer & Brewer, 1984). Moreover, in-group and out-group phenomenon leads the individuals to prefer members belonging to their group and to think of them as relatively more cooperative, fair and trustworthy than those who are external to their group (Brewer, 1979). Moreover, group identity develops a sense of keeping group goals ahead of individual goals or aspirations and infuses a sense of similarity between individual and group goals (Kramer & Brewer, 1984). When group members feel commonality of goals and aspirations, they start believing that other members will be enthusiastic in pursuing the

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group goals and will act in accordance with group values to achieve the goals and this will pave foundation for the cultivation of trust (Williams, 2001).

**e. Reciprocity**

Reciprocity, which refers to trustee's interchange of trustor's trusting behaviors such as entrustment and reliance, is one of the major antecedents to trust (Wasti et al., 2011). Observation over the ages tells that reciprocity leads to higher extent of trust (Zand, 1972). Despite the presence of some noteworthy contributions in connection to trust and reciprocity, Schoorman et al. (2007) note that the impact of such reciprocity on trust building needs to be studied with more number of studies, since it has not been plainly examined previously. Among the existing studies, for example, (Brewer & Brown, 1998) noted that the level of trust in manager became higher when there was strong trust towards subordinates by the manager. Findings of Wasti et al. (2011) further strengthen the influence of reciprocity in building trust-based relations. Berg, Dickhaut, and McCabe (1995), in their study of trust and reciprocity in investment related decisions, found direct correlation of trust and reciprocity; suggesting reciprocity as one of the fundamental human attributes for building up trust. Based on their study, they further argued that the combination of trust and reciprocity for rational decision-making paradigm could allow better analysis of economic institutions, especially for framing and implementing joint decisions. The findings of Berg et al. (1995) concord with those of (Geanakoplos, Pearce, & Stacchetti, 1989). However, Schoorman et al. (2007) in their integrative model of trust, have not suggested a direct correlation of trust and reciprocity.

**f. Confidentiality**

Trust defines and regulates the nature of relationships among individuals and groups (Gefen, 2000). This is commonly observed that the level of trust increases with sharing of information and specially specified personal information, because by sharing sensitive personal information people make themselves more vulnerable Blau (1964) and this increased level of vulnerability can lead to increased level of confidence and trust towards them (Ridings et al., 2002). Additionally, as McAllister (1995) suggests trust decisions in many instances tend to be made based on sharing personal or codified information of individuals with others. By sharing personal confided information, people reduce the extent of strange feelings towards others and create an atmosphere of acquaintance or friendliness (Ridings et al., 2002). Likewise, confidentiality and keeping secrets help in understanding the level of integrity and benevolence and both integrity and benevolence are two of the three fundamental components of trustworthiness (Ridings et al., 2002). Knowing about others makes easy to decide whether to trust someone or not. Sharing of personal information and secrets helps in understanding and judgment process and that helps in trust building (Blau, 1964; Luhmann, 1979). Confidentiality from trustee is also reported by Butler Jr (1999) as a significant factor that facilitates the building of interpersonal trust. H. H. Tan and Chee

(2005), have also empirically found confidentiality as an important antecedent to trust development in a study conducted in Singapore.

#### **g. Commitment**

Commitment denotes dedication and devotion of trustee towards trustor in working relationship. H. H. Tan and Chee (2005), have found commitment as an important antecedent to trust building. Commitment gives the connotation of fulfilment of promise in Butler Jr (1999) work. Commitment promotes perseverance in interpersonal relationship (Drigotas & Rusbult, 1992). Literature suggests that commitment fosters a variety of maintenance behaviors including: willingness to sacrifice something for someone Van Lange et al. (1997); accommodating attitude, (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991) and disparagement of alternatives, i.e. tendencies that drive away or derogate tempting alternative partners (Miller, 1997). In the study of H. H. Tan and Chee (2005), respondents shared that a trusted person is not the one who only fulfils the promise but, it is one who shows a strong perseverance in honoring his or her words. In this context, a trusted person is expected to commit the words, despite unfavorable and hostile conditions. Built on this, strong sense of commitment is a critical factor in the building of trust among the two parties (H. H. Tan & Chee, 2005). Rusbult et al. (1991), have also empirically tested the positive relationship of trust building and commitment. Their findings from two longitudinal studies evidenced that commitment stimulated acts like willingness to sacrifice.

#### **h. Loyalty**

Butler Jr and Cantrell (1984), described loyalty as a feeling of compassion, kindness and altruism towards someone or an individual's willingness to support someone and safeguard his or her rights and interests. Jennings (1971), defines loyalty as an implied assurance from one party to remain faithful and not to cause harm to other party. Loyalty has also been discussed in trust literature Jennings (1971) as an antecedent to trust building. However, despite numerous researchers e.g. (Reichheld, Markey Jr, & Hopton, 2000; Reynolds, 2000) have recurrently highlighted the significance of trust and loyalty. Empirical evidence into this area still needs serious focus and attention of researchers e.g. (Stewart, 2003). (H. H. Tan & Chee, 2005), found loyalty as a very strong element of trust development in a study conducted in Singapore. In their study, a large number of respondents mentioned loyalty as a very important trustworthiness attribute, especially with respect to boss-subordinate relationship (H. H. Tan & Chee, 2005). From an organizational perspective, loyalty according to H. H. Tan and Chee (2005) as explained by their respondents in their research, is a single-minded faithfulness towards the organization and management. The influence of loyalty on trust has been extensively discussed in buyer-seller trust based relationship e.g. (Lau & Lee, 1999). Harris and Goode (2004), in their study regarding buyer and seller relationship have found a positive correlation between trust and loyalty.

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### **i. Time Spent**

Extant research provides evidence that the proper regularity of one-to-one interaction is an important factor for team effectiveness Maznevski and Chudoba (2000) and therefore, trust building between previously unacquainted members takes longer (Wilson, Straus, & McEvily, 2006). The importance of time factor is recognized in the discussion of trust building process of Mayer et al. (1995) “as the relationship develops, interactions with the trustee allow the trustor to gain insights about the trustee’s benevolence and the relative impact of benevolence on trust will grow”. Also integrity is assessed through the consistency of actions over time: “The extent to which the party’s actions are congruent with his or her words all affect the degree to which the party is judged to have integrity” (p. 722).

### **j. Religiosity**

Strong religiosity according to many scholars is also one of the antecedents to trust. Previous studies have proposed that religious beliefs are linked with trust in people (Bègue, 2002). Keeping in view the relationship between religiosity and interpersonal trust, Schoenfeld (1978) observed that attendance in churches fosters a more trusting stance to others. A study of Maddock and Kenny (1972) noted that intrinsically religious individuals generally score higher on the subscale of trustworthiness in connection with Wrightsman (1991) philosophies of human nature scale. Lupfer and Wald (1985), have also suggested that religiously committed people perceive others to be altruistic and truthful. In a study conducted in a French context, Bègue (2002) has empirically proved a positive relationship between religiosity and trustworthiness. In an experimental study by J. H. Tan and Vogel (2008) it is empirically tested that religious people generally tend to be more trustworthy and they generally trust others. In another study conducted by H. H. Tan and Chee (2005) among Japanese and Japanese Americans; religiosity, acculturation and autonomy preference, were strongly related to trust in one’s physician.

### **k. Shared Values**

Shared values are one of the important antecedents of trust building. Shared values can be described as common set of social principles, standards, norms and convictions that channelize behaviors and attitudes of a given society or group. Shared values unite dissociated people to a collective platform and allow them to communicate with each other and promote their feelings and ideas in a combined manner (Wu, Chen, & Chung, 2010). Indeed, shared values guide to the development of homogenous communication channels and behavioral manifestations that infuse a sense of attachment and belonging among the individuals (Morgan & Hunt, 1994). Formulation and reinforcement of shared goals is critical for gaining common understanding and discouraging opportunism which is very important for building trust. Numerous research studies have identified shared values being important antecedent of social trust (Cazier et al., 2006). Morgan and Hunt (1994), for instance, found that shared values foster mutual trust through simplifying communication and cooperation among group members. Cazier et

al. (2006), also established that shared goals considerably influence individuals' degree of trust towards their colleagues.

### **1. Organizational Justice**

Perceived impartiality of organizational reward systems, simply, the organizational justice, may facilitate trust building among employees of an organization (Bartol & Srivastava, 2002). Organizational justice is a term used to delineate the presence and influence of fairness at work place Greenberg (2005) and it includes both procedural and distributive dimensions. Procedural justice relates to the perception of employees regarding the application of fairness in their job duties and other aspects of their work; like work-place tools and work environment Yusof and Shamsuri (2006) and distributive justice according to Price (1997), addresses the issues of fairness in compensation and rewarding of employees in return to their performance and contribution. Bartol and Srivastava (2002), suggest that both types of justice will affect the degree of trust among workers and at workplaces. Many research studies empirically evidenced positive relationship between organizational justice and trust at workplaces (Lance Frazier, Johnson, Gavin, Gooty, & Bradley Snow, 2010). This is natural that employees always compare their workload and compensation with their colleagues and if they feel any unfairness, it disturbs their relationship, creating personal grudges and conflicts which are detrimental for trust building. That is why, Leventhal (1976) emphasized that managers while allocating organizational incentives and rewards need to be fair and trustworthy and ensure impartiality, because it will be a critical element of building trusting atmosphere within organizations.

### **Discussion and Implications for Managers**

The objective of this paper was to suggest a research agenda for the analysis of antecedents to interpersonal trust development from organizational perspective. The study found that trustworthiness, propensity to trust, affect, social group membership, confidentiality, commitment, loyalty all are important for the development of interpersonal trust. Additionally, shared values, organizational justice, religiosity, confidentiality and time orientation are also significant for the cultivation of interpersonal trust. Keeping in view the importance of trust, managers should try to develop appropriate mechanisms that may improve the quality of interpersonal relationships among members characterized by mutual trust and cooperation. This means that the HR managers should try to ensure and increase the level of interpersonal trust among organizational members and make efforts to create a culture of mutual trustworthiness within the organizations, founded on social interaction ties and a vision for collaborative effort for superior organizational functioning. For achieving this goal, they need to understand the perceptions of their employees regarding the factors, which increase or decrease the level of interpersonal trust and then try to promote traits and behaviors that lead towards building and enhancing the level of trust and discourage those trends and traits that deter interpersonal trust. Additionally, managers can create better trust-based relations among employees through facilitating the norms of

confidentiality, commitment, loyalty, confidentiality. Moreover, the managers need to promote an environment of cooperation, shared vision and open communication among the employees backed by organizational justice and fairness with regard to distribution of organizational resources, awarding of organizational rewards and assigning of duties, since feelings of unfairness and injustice create conflicts and shatter the confidence and trust. Prior literature maintains that structural ties could be strengthened through frequent social interactions, which may cultivate a shared vision through hands-on experience over time (Wasko & Faraj, 2005). Despite a plethora of research being conducted in the discipline of trust in the past two decades, every new research study only indicates that a lot more needs to be conducted to investigate and analyses some new very promising dimensions and avenues of this extremely important construct.

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