



Sukkur IBA JOURNAL OF Management and BUSINESS

Volume 5 | No. 1 | January - June 2018 | P-ISSN: 2313-1217 | E-ISSN: 2410-1065



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

Prof. Nisar Ahmed Siddiqui

Sitara-e-Imtiaz

Vice Chancellor, Sukkur IBA University

Editorial

Dear Readers,

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

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 The journal has been archived by world's renowned scientific repositories.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

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

Dr. Khalid Ahmed

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Contents

Effect of Transformational Leadership, Job Design, and Human Resource Practices on Job Satisfaction of Banking Staff in Pakistan <i>Amira Nasreen, Khawaja Khalid Mehmood</i>	1-15
Authentic Leadership and Organization Citizenship Behavior: A Case of Pakistani Electronic News Media Industry <i>Syed Sohaib Zubair, Mukaram Ali Khan</i>	16-32
Organizational Culture and Knowledge Sharing Behavior: Examining Serial Mechanisms <i>Saliha Gul Abbasi, Ghulam Dastgeer</i>	33-51
Are gold markets weak form efficient? Evidence from China, India and Russia <i>Bisharat Chang, Pervaiz Ahmed, Niaz Ghumro, Mujeeb-U-Rehman Bhayo</i>	52-65
Trade Liberalization-Trade Revenue Nexus: An Empirical Enquiry of Trade Laffer Curve of Pakistan <i>Khalil Ahmad, Safdar Ali</i>	66-84
The Role of Visual Merchandising in Impulse Buying Behavior: An exploration from the lens of young adult consumers <i>Hafsa Waseem, Sobia Sultana</i>	85-99
Paper Submission & Formatting Guidelines	100

Effect of Transformational Leadership, Job Design, and Human Resource Practices on Job Satisfaction of Banking Staff in Pakistan

Amira Nasreen¹, Khawaja Khalid Mehmood¹

Abstract

Employee job satisfaction has been one of the crucial factors behind an organization's success. Review of literature in the field of management, leadership, and organization behavior regarding antecedents of job satisfaction indicates that job design, transformational leadership, and human resource practices are essential antecedents of job satisfaction as accounted for a variety of researches. However, there have been limited researches that study impact of job design, transformational leadership, and human resource practices on job satisfaction in one research outline. Further, literature review indicates that such research is warranted in Pakistan because there is extremely limited research on this topic in the context of Pakistan. To fulfil this research gap, this study took data from banking sector as this sector is considered to be essential one contributing to Pakistan economy; and job satisfaction among bank staff has always been an important concern. The study utilized final response of 170 questionnaires from various private banks in Southern Punjab, and relied on SmartPLS3.0 for analyses of data. The study suggests that job satisfaction is affected positively by human resource practices and transformational leadership, whereas job design does not affect job satisfaction in the banking context. This study makes invaluable contribution to transformational leadership theory, organization behavior, and dynamic capabilities perspective through its hypotheses testing. The study recommends banks' management to improve quality of human resource practices as well as concentrate on promoting transformational leadership style in their banks.

Keywords: Human Resource Practices, Job Design, Job Satisfaction, Transformational Leadership.

JEL Classification: J28, M12, M51, M52.

1. Introduction

The success of any organization depends directly or indirectly on the effort, capability, and contribution of its employees and leaders. Traditionally, among many factors contributing to organization's success, job satisfaction has been considered as one crucial factor (Conley, 1989; Hoy & Miskel, 1987). Job satisfaction is about positive feelings regarding the job, or is whether an employee likes various facets or aspects of his job. For instance, the type of work and kind of supervision (Spector, 1997). As job satisfaction is an outcome, therefore, several factors such as task characteristics, dual-

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attachment approaches, social information processing, and dispositional variables might determine job satisfaction (Baker, 2004; Savickas & Savickas, 2016). This study investigated and identified important factors (transformational leadership, job design, and HR practices) with reference to organization behavior theory, transformational leadership theory, and dynamic capabilities perspective, considered crucial for job satisfaction and tested them in one research framework. Further, these variables have been considered relevant and important in context of Pakistan-based organizations as well (Abid, Sarwar, Imran, Jabbar, & Hannan, 2013; Bushra, Ahmad, & Naveed, 2011; Iqbal, Malik, & Ghafoor, 2013; Islam, Bangish, Muhammad, & Jehan, 2016). The study identifies that a gap lies in the previous research that under the theories mentioned above, the effects of transformational leadership, job design, and human resource practices have although been examined already, not in a single research framework, whereas this research accomplishes the purposes of testing these antecedents in the same research framework. Another gap lies in the form of context, that in the context of Pakistan, this kind of research has not been conducted before which actually could provide useful suggestions to bank managers in Pakistan regarding how they could manage job satisfaction of the banking staff in Pakistan.

Leadership is a connection that makes workers do their work collectively. According to scholars (Iliescu, Beldean, & Sintion, 2007; Khan et al., 2014), leadership exerts powerful control on the behavior of people and their attitude towards their profession. Transformational leadership is a contemporary concept in leadership theory. Historically, Burns (1978) proposed that transformational leader cares for his followers, shows high concern for them, and possesses capability to define mission and conceptualize vision. Bass (1985) included *individualized consideration, idealized/charisma influence, intellectual stimulation, and inspirational motivation* into the concept of transformational leadership. Empirical research has largely reported that transformational leaders are successful in increasing job satisfaction of their followers (al-Dumur & al-Awamilah, 2002; Bushra et al., 2011).

Furthermore, satisfaction could be obtained by designing jobs better. Theories in organization behavior have proposed various methods of designing jobs to improve motivation and job satisfaction, such as job enlargement, job enrichment, and job rotation (Herzberg, 1966; Onimole, 2015). Herzberg (1966) suggested that jobs must be designed so that they could enable employees to improve their capability, clarify accountability, and provide sense of recognition and achievement. Researchers largely claim that job design affects job satisfaction (Fahr, 2011; Onimole, 2015; Sageer, Rafat, & Agarwal, 2012). Moreover, researchers and experts acknowledge that higher degree of worker satisfaction could be obtained through HR practices that could eventually improve managerial and organizational performance (Appelbaum, Bailey, Berg, & Kalleberg, 2000). Various scholars in different contexts have worked on various HR practices in the past. In Chinese context, Syed and Yan (2012) examined the effect of various HR practices on job satisfaction and reported that performance based salary,

employee participation, merit based promotion, empowerment, job rotation, and complaint handling procedure had positive impact on job satisfaction. Petrescu and Simmons (2008) studied impact of pay and incentive systems on job satisfaction in British context. Nabi, Syduzzaman, and Munir (2016) examined impact of performance appraisal, training and development, teamwork, compensation, and employee participation on job satisfaction in context of Bangladesh. Empirical research largely concludes that HR practices have a significant positive effect on job satisfaction (Frye, 2004; Humborstad & Perry, 2011; Kampkötter, 2017; Kosteas). In line with Mumtaz, Khan, Aslam, and Ahmad (2012), this research examines effect of four HR practices (compensation practices, promotion practices, empowerment practices, and performance appraisal practices) on job satisfaction.

This research is carried out in banking sector of Pakistan. This sector marked improvements that started since early 1990's and have now transformed banking sector into a comprehensive, sustainable, and well-organized structure. Banking system in Pakistan has been enhanced by high technology revolution and globalization. There are around 31 banks in Pakistan from which five are public sector banks. Concerning performance, the previous decade has been better for banking sector with the figures being favorable regarding balance-sheet growth for banks. As Michaels (2017) quotes, since 2009 to September, 2016, total assets increased to PKR 15,134 billion from PKR 6,516 billion; investments exponentially increased from PKR 1,737 billion to PKR 7,625 billion; total deposits increased to PKR 11,092 billion from PKR 4,786 billion; and lending rose to PKR 5,025 billion from PKR 3,240 billion. The industry structure indicates that a vast network of banks' branches is maintaining strong competition among the banks. Empirical research in organization behavior and human resource practices conducted in banking sector all over the world indicates this sector's importance and also points towards relevancy of this research's variables to the nature of banking jobs. Therefore, this research adds to relevant theories as well as provides recommendations for banks' management for improving job satisfaction of banking staff, particularly in Pakistan.

2. Literature Review

As argued earlier, job satisfaction is about feeling positive about the job, or is whether an employee likes various facets or aspects of his job such as the type of work and kind of supervision (Spector, 1997). Research has been focusing on job satisfaction since 1935 (Vroom, 1964). A number of factors could affect job satisfaction, and different researchers have identified various antecedents of job satisfaction as well. Herzberg (1966) suggested that recognition, development, responsibility, accomplishment, and job itself were five significant aspects responsible for job satisfaction, out of which at least three factors must be met. Researchers argue that employees feel more satisfied in conditions like when they feel they possess relevant skills, when they like organizational procedures, and they feel their requirements are being fulfilled. This

research, however, focuses on the side of leadership, HR practices, and job design based on the theories already mentioned.

2.1. Transformational leadership and job satisfaction

Leadership has been crucial to organizations. Effective leaders definitely enhance company's productivity and employee satisfaction. Different managers have different leadership styles that might be related differently with people's satisfaction and organizational performance. Relationship between leader and followers has had a drastic impact on satisfaction and confidence of followers (Brockner, 1988; De Cremer, 2003). Sosik, Potosky, and Jung (2002) noted that transformational leadership style was one of the contemporary styles of leadership exercised by leaders who captured their employees' thoughts and opinions into deliberation. Transformational leaders understand their followers' interests, develop consciousness and generate commitment of employees for the benefit of the organization, and allow employees to go beyond their very own self-hobbies for organizational benefits (Seltzer, Numerof, & Bass, 1989). Transformational leaders act as role models and make their subordinates develop an inspiration; they allow subordinates to convey new ideas and solutions to problems that could make the organization evolve competitively and adjust according to environmental demands. Yang (2009) deliberated on transformational leadership style and suggested that transformational leaders frequently focus on their subordinates' motivation and job performance, suggesting that under these leaders, followers could most likely feel highly satisfied with their jobs.

A number of past studies suggested positive impact of transformational leadership on job satisfaction (al-Dumur & al-Awamilah, 2002; Bushra et al., 2011; Geyer & Steyrer, 1994). al-Dumur and al-Awamilah (2002) suggested positive influence of transformational leadership on job satisfaction of bank staff in Jordan. Bushra et al. (2011) suggested similar relationship in context of banking sector staff in Pakistan. Khan et al. (2014) revealed that transformational leadership positively affected employee commitment in service sector of Pakistan. Hanaysha et al. (2012) suggested that intellectual stimulation dimension of transformational leadership positively affected job satisfaction in Malaysian context. In German context, study of Geyer and Steyrer (1994) revealed that core elements of transformational leadership were more strongly connected to bank workers' long term performance. The findings of these studies are largely in line with transformational leadership theory, which suggests that transformational leadership is about acting as role model, developing close productive relations with works, stimulating their creative potential and encouragement that would eventually increase worker satisfaction and motivation. Thus, the discussion leads towards following hypothesis.

H1: Transformational leadership positively influences job satisfaction.

2.2. Job Design and job satisfaction

Job design is about identifying and arranging the tasks, duties, and responsibilities of the job (Opatha, 2002), and so managers must never underestimate the effects of designing jobs on people (Oghojafor & Adebakin, 2012). As argued earlier, theories in organization behavior have proposed various methods of designing jobs to improve motivation and job satisfaction, such as job enlargement, job enrichment, and job rotation (Herzberg, 1966; Onimole, 2015). Job characteristics model (JCM) suggests that employees feel more motivated and satisfied when their jobs include the characteristics of skill variety, task identity, task significance, autonomy, and feedback (Hackman & Oldham, 1976). Generally, employees who are happy with their jobs tend to be more satisfied and motivated and this leads them towards high levels of performance as well. Scholars largely claim that job design affects job satisfaction (Fahr, 2011; Onimole, 2015; Sageer et al., 2012). For instance, based on large data set in Germany, Fahr (2011) examined the impact of enriched job based on high autonomy and multitasking features on job satisfaction and found that the evidence supported that hypothesis. Hence, this leads towards following hypothesis.

H2: Job design positively influences job satisfaction.

2.3. HR practices and job satisfaction

HRM is about systems, practices, and policies that persuade behavior, actions, and performance of employees for the betterment of an organization (Gerhart, 2007). A number of past studies empirically examined the effect of HR practices on job satisfaction and other outcomes and majorly revealed that effective use of HR practices would lead towards accomplishing short term and long term goals (Edgar & Geare, 2005; Syed & Yan, 2012). Syed and Yan (2012) examined impact of high performance HR practices on job satisfaction in China and found that performance based salary, employee participation, merit based promotion, empowerment, job rotation, and complaint handling procedure had positive link with job satisfaction. Edgar and Geare (2005) studied impact of HR practices on job satisfaction, managerial objectivity, and commitment; and found the impact positive. Petrescu and Simmons (2008) also affirmed positive relation between certain HR practices and job satisfaction. However, Iqbal et al. (2013) reported that manager role had significant impact on job satisfaction, but compensation policy and participation in decision making were insignificant in predicting satisfaction. But, overall, a number of studies argue about positive impact of different HR practices on job satisfaction. This research considers four HR practices for its purpose (compensation practices, promotion practices, empowerment practices, and performance appraisal practices) in line with Mumtaz et al. (2012) as well as based on the assumption that in the context of Pakistan, these practices might be more important to study.

Compensation includes direct as well as indirect rewards; it is a reason for employees to work; and could well determine an employee's living status in society, his satisfaction, loyalty, and other outcomes. Promotion basically refers to one's movement

towards a higher or better level job. Well-managed organizations develop sound promotion policies for their staff motivation. Researches so far largely argue that good compensation and promotion policies improve job satisfaction (Frye, 2004; Kosteas, 2009). Similarly, employee empowerment is an HR practice, which affects job satisfaction as every individual may not be motivated through financial rewards. Yazdani, Yaghoubi, and Giri (2011) suggested that empowerment was helpful for various businesses in terms of developing satisfaction and belongingness among workers. Humborstad and Perry (2011) conducted research in hospitality industry of China and suggested that employee empowerment leads to better job attitudes including job satisfaction and organizational commitment. Last, performance appraisal is necessary component of HRM, which serves as a base for variety of HR decisions. For this reason, it must be fair, complete, and provide timely feedback. Many scholars have argued that an effective performance appraisal system ensures better organizational output and job satisfaction among workers (Humborstad & Perry, 2011; Kampkötter, 2017). Importantly, how an organization develops, performs, and updates these HR practices and activities could indicate its intention to develop organizational capabilities in the area of HRM. Therefore, this study also reinforces dynamic capabilities perspective by testing its hypothesis 3.

H3: HR practices positively influence job satisfaction.

3. Research Methodology

The target population for this research included bank managers and senior staff. To maintain homogeneity, only private banks were included in the study. Primary data was composed for this research because the information regarding the constructs is normally not available through secondary data sources. From the private banks contacted, six consented to participate in the study that included Habib Bank Ltd., Askari Bank Ltd., Muslim Commercial Bank Ltd., Bank Alfalah Ltd., Allied Bank Ltd., and Habib Metropolitan Bank Ltd. The questionnaires were sent to all the branches of these banks in cities including Faisalabad, Kot Addu, Multan, Sadiq abad, and Shah Kot. From 200 questionnaires sent, 170 were returned (85% response rate). This response rate was obtained because questionnaires were delivered personally to respondents and then personal visits and telephone calls were made several times. Past studies where several follow-ups were done also obtained 85% response rate (Bachrack & Scoble, 1967; Garcia, Portugal, Chu, & Kawatkar, 2014).

Questionnaire was constructed by adapting 8 items from the study of Alnaqbi (2011) for measuring job satisfaction which are originally based on Minnesota Satisfaction Questionnaire (Weiss, Dawis, & England, 1967). For measuring job design, 6 items were selected from the Work Design Questionnaire (Morgeson & Humphrey, 2006). Transformational leadership was measured by adapting items from previously developed scales such as Transformational Leadership Behavior Inventory (TLI) developed by (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). HR practices

consisted of 24 items, out of which 11 items were adapted from the questionnaire developed by Nyaberi (2009) for measuring empowerment practices. For appraisal practices and promotion practices, comprising 5 and 3 items respectively items were adapted using scale of Rathnaweera (2010); 5 items were adopted from the research of Iqbal, Arif, and Abbas (2011) for measuring compensation practices (whose reliability was ensured by previous scholars). The questionnaire included 57 target questions along with 9 questions for classifying respondents into different types. A five point Likert type scale was used to assess the extent of agreement or disagreement for different items.

4. Data Analyses & Findings

4.1. Measurement model and hypotheses testing

Data analyses consisted of two models: the measurement model and the structural model. Measurement model was constructed to examine reliability, validity, and other important statistics; whereas, the structural model was constructed for testing the study's hypotheses. The hypotheses were studied using PLS algorithm initially, and later by bootstrapping (with 1000 subsamples). For testing data reliability and validity, guidelines provided by (Garson, 2016) were followed. First, the output of final factor analysis run using measurement model is shown in table 1. All the factor loadings for final items retained in the model (for reflective constructs) were greater than 0.70 which indicated convergent validity (Henseler, Ringle, & Sarstedt, 2012). HR practices consisted of certain dimensions and therefore, they were treated as second order formative variable. According to Daskalakis and Mantas (2008), if composite reliability is greater than 0.7, it also shows convergent validity; and this was also accomplished in the model. Cronbach's alpha is one of the frequently used indicators for assessing reliability. Its value has to be greater than 0.6 for ensuring reliability of scale (Cronbach, 1951). Thus, Cronbach's alpha values as well as composite reliability values presented in table 1 show reliability of scales.

Table 1: Measurement Model Analysis

Construct	Items	Loadings	Composite Reliability	Cronbach's alpha	AVE
Job Satisfaction	JS1	0.763	0.841	0.748	0.569
	JS2	0.783			
	JS7	0.734			
	JS8	0.736			
Job Design	JD1	0.829	0.807	0.641	0.583
	JD2	0.726			
	JD5	0.731			
Transformational Leadership	TL1	0.738	0.831	0.729	0.552
	TL2	0.794			
	TL3	0.712			
	TL12	0.724			

Table 1 also shows that the Average Variance Extracted was higher than 0.50 for all variables which shows divergent and convergent validity (Chin, 1998; Garson, 2016). For assessing discriminant validity, Fornell and Larcker (1981) method was used; and the correlation examination of AVEs revealed acceptable results. Additionally, all HTMT (Heterotrait Monotrait) ratios were also less than 0.85 (<1.0) that showed discriminant validity. Next, the structural model was studied which is shown in figure 1. The model shows three independent variables: transformational leadership, job design, and HR practices; and one dependent variable: job satisfaction. Statistics for test of structural model are given in table 2.

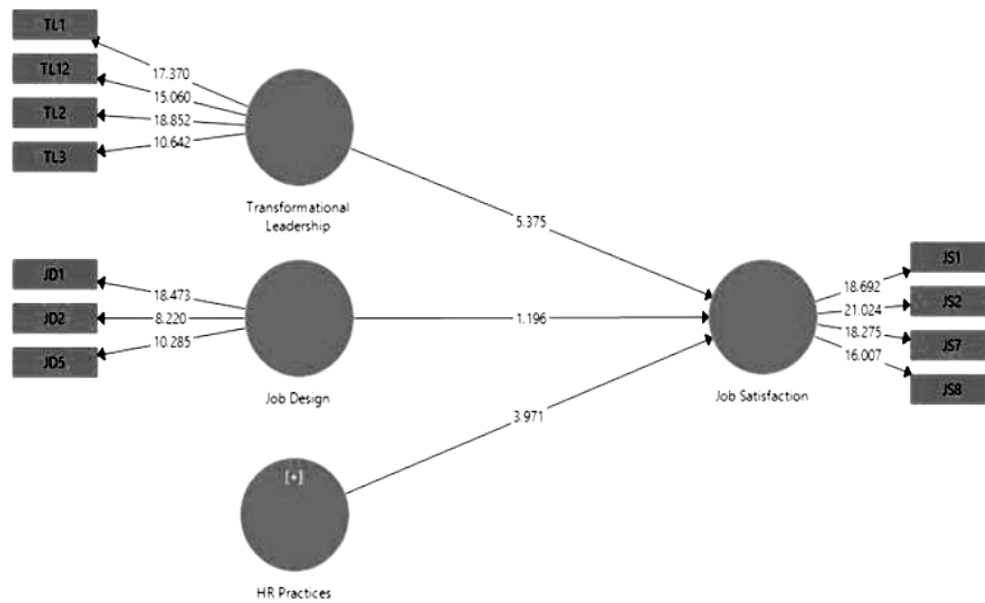


Figure 1: Structural model.

Table 2: Structural Model Analysis

Relation	Nature/Significance of effect			Confidence Interval	
	coefficient	t-values	p-values	25%	97.5%
<i>transformational leadership</i> → <i>job satisfaction</i>	0.436	5.459	0.000	0.281	0.609
<i>job design</i> → <i>job satisfaction</i>	0.086	1.166	0.244	-0.052	0.233
<i>HR practices</i> → <i>job satisfaction</i>	0.266	3.820	0.000	0.121	0.392

Table 2 indicates that transformational leadership has significant effect on job satisfaction (t-value: 5.459, p-value: 0.000); hence H1 is accepted. HR practices also

has significant effect on job satisfaction (t-value: 3.820, p-value: 0.000) that leads to accepting H3 also; whereas job design does not have significant effect (t-value: 1.166, p-value: 0.244); hence rejecting H2. R^2 of 0.446 indicates around 45% variance caused in job satisfaction. Additionally, positive coefficients for effect of transformational leadership and HR practices show that job satisfaction could be increased by better exercising transformational leadership and by improving HR practices.

4.2. Group differences

Further analysis was conducted for any significant differences among the opinions of different groups of respondents with respect to gender, age, experience, and qualification. This was accomplished through t-tests and ANOVA. First, t-tests for comparisons among male (115) and female (55) respondents' opinions for the four constructs revealed no significant differences among the two groups for job satisfaction (p-value: 0.911), transformational leadership (p-value: 0.702), job design (p-value: 0.315), and HR practices (p-value: 0.496). Second, ANOVA tests for differences in opinions about transformational leadership showed that there were significant differences among employees belonging to different ages only (p-value: 0.000). ANOVA tests for differences in opinions about job design revealed that there were significant differences among employees belonging to different ages (p-value: 0.000), qualifications (p-value: 0.006), and experience (p-value: 0.000). Next, ANOVA tests for differences in opinions about HR practices also revealed that there were significant differences among employees belonging to different ages (p-value: 0.000), qualifications (p-value: 0.000), and experience (p-value: 0.000). Last, ANOVA tests for differences in opinions regarding job satisfaction also revealed that there were significant differences among employees belonging to different ages (p-value: 0.000), qualifications (p-value: 0.006), and experience (p-value: 0.004). This information carries important implications regarding views of different types of respondents about variables and future researches might therefore, consider including these variables as possible control variables as well.

5. Conclusion, Discussion, and Implications

This study tested the effect of transformational leadership, job design, and HR practices on job satisfaction and discovered that transformational leadership and HR practices positively affect job satisfaction of banking staff in Pakistan. The conclusions have support from numerous previous studies. First, the effect of transformational leadership on job satisfaction is supported by many researchers, for instance, by al-Dumur and al-Awamilah (2002); and Geyer and Steyrer (1994). This study is particularly in line with that of Bushra et al. (2011) who also reported positive impact of transformational leadership on job satisfaction of bank employees in Pakistan. In other way, this study also supports the conclusions of Riaz, Akram, and Ijaz (2011) and Khan et al. (2014) who reported that positive outcomes like high employee commitment among employees working in Pakistan could be achieved through transformational leadership. Importantly, the results support transformational leadership theory which asserts that

transformational leaders could enhance employee creativity, motivation, and satisfaction through their charismatic personality, individualized consideration, and by stimulating workers to generate ideas and solve problems.

Secondly, there are many researches that support positive impact of HR practices on job satisfaction (Islam et al., 2016; KoC, Cavus, & Saraçoglu, 2014; Petrescu & Simmons, 2008; Syed & Yan, 2012). HR practices, programs, and activities relate to human resource management in an organization. How an organization performs its various activities concerning performance management, compensation and promotion management, and employee empowerment might serve as its important capabilities to create value within the organization. This value could eventually create value for the buyers and hence, provide competitive advantage to the organization. Therefore, the findings of this study also support and reinforce dynamic capabilities perspective (Tece, Pisano, & Shuen, 1997).

This study did not find a significant link between job design and job satisfaction. This result came as a surprise given majority research that has already suggested positive impact of job design on job satisfaction. But, Baker (2004), using meta-analysis, also found partial support of job design's impact on job satisfaction. Further, there might be certain reasons behind this finding. First, the design of jobs may not be as important in banking sector as in other sectors. In banks, staff might place more value on factors like type of leadership and HR practices compared to how their jobs are designed. For instance, in banks, staff members may not be able to clearly see the impact of their jobs on the lives of customers, and all the staff members may not be doing a complete module of work or they might be working on a piece of work that could eventually be accomplished with the help of other members in the bank branch. Second, measuring job design through some other method or set of items might produce a different finding. Last, importance and impact of job design in banks might need in depth interviewing and discussion with job incumbents.

This research intends to make important theoretical and practical contribution. First, the theoretical contribution of the study is through its framework. This research tests effects of transformational leadership, job design, and human resource practices on job satisfaction, all in one research framework; and the hypotheses of the model are based on and make contribution to theories of transformational leadership, organization behavior, and dynamic capabilities perspective. Secondly, the study informs Pakistan's banking sector managers on the role of transformational leadership and HR practices for effectively managing job satisfaction of their bank staff. Specifically, it suggests that job satisfaction could be increased if supervisors adopt transformational leadership style wherein they act as role models and construct healthy relations with subordinates, articulate proper vision and communicate it to followers, encourage development of group level goals, instill creativity among subordinates, encourage their initiatives, and provide timely feedback about performance. This study developed HR practices

construct using four dimensions including compensation practices, promotion practices, performance appraisal practices, and empowerment practices. Therefore, it concludes that job satisfaction is higher when compensation system maintains internal and external equity and offers competitive rewards and incentives. Similarly, it suggests banks' management to design fair performance appraisal system, provide feedback to staff about performance, communicate with staff about methods to appraise performance, and maintain proper record of performance appraisal. The study suggests that promotional policies need also to be formal, fair, and equitable. Last, the findings suggest that banks must ensure participation of staff in decision making and ideas should be taken from all employees for solving problems; practice empowerment and delegation; exercise visionary and effective leadership to create a culture where employees feel encouraged to speak about problems and take initiatives to solve them. It suggests that effective HR practices would help banks satisfy their staff that might ultimately contribute positively to banks' performance.

6. Limitations and Future Research

This research has certain limitations which must be acknowledged. First, this study only included private banks in the analyses, and the future research could increase its scope by comparing private banks with public banks on the variables studied herein. Future studies could further increase their scope by including private or public sector banks from all over Pakistan for better generalization. Similar studies in other sectors in Pakistan as well as other parts of the world would surely add to the knowledge on the area. Future researches might think about any intervening variables playing their role in the relationships or any possible moderators for enhanced analyses. Further, the study borrowed items from previous studies for measuring its constructs. Certain other set of items for measuring same constructs could alter the findings; particularly for HR practices, as this study included limited HR practices in the analyses. Future studies could increase the dimensions of HR practices based on their own research designs.

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Authentic Leadership and Organization Citizenship Behavior: A Case of Pakistani Electronic News Media Industry

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Abstract

The role of leadership in an organizational system has remained of central concern in organization studies. Over the time, the emergence of various theories has unfolded the unique influential roles of leadership embedded in organizational management. Among various leadership styles and theories, a relatively new concept of Authentic Leadership (AL) is worthy of attention with respected to the changing demands of the media industry. The origin of the concept of authenticity is found in ancient Greek philosophy and it is defined in history as “being true to oneself”. Trust is the basic constituent based on which people can count on one another and work together in a conducive environment. AL is an idea to leadership that focuses on developing leader’s legitimacy via “honest relationships with followers”. In this study, AL is measured through four dimensions that include Self-awareness, Balanced Processing, Moral Perspective and Relational Transparency. Media is expected to be a watchdog on affairs of the state and government, therefore, public requires media industry to be responsive, transparent and unbiased based on principles of ethics and true reporting. In order to achieve a positive environment and culture in the organization, this study focuses on the idea of Organization Citizenship Behavior (OCB) in connection with AL. This paper investigates the relationship between the said variables and tries to find out the impact of AL on OCB, for that matter, a quantitative research strategy has been followed. Respondents for this study were conveniently selected from bureau offices of six news channels making the sample size to be 220. The analysis led to the conclusion that all the dimensions of AL were positively related with OCB. Moreover, the regression analysis aided in concluding that the four dimensions of AL under consideration contributed approximately 61.3% in predicting the dependent variable i.e. OCB.

Keywords: *Authentic Leadership, Organization Citizenship Behavior, Organization Environment, Media.*

JEL Classification: M00, M54.

1. Introduction

The role of authentic leadership has an impact on the performance, behavior and extra role behavior of employees which can be termed as organizational citizenship behavior (OCB). Being the fundamental and vital part of any system, leaders can be

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referred to as the backbone of any organizational system. They act as strong stimulators for the forces on which the system has an impact. According to Gardner (1993), leadership skills can either be evolving or can be evolved. Probing the impact of leadership and its strong influence on the organizational system, extensive research has been carried out on leadership in recent years. Based on literature transformational, task-and relationship-oriented, charismatic leadership, democratic, spiritual leadership, impoverished, authoritarian, transactional, servant leadership, country club management, self-leadership, autocratic, team management and consultative are the commonly used and researched styles of leadership (Ofori, 2008).

However, on the basis of organizational theories that have been developed during pre-modernism, modernism and post-modernism periods, one cannot assume that all the leadership styles worked best in all the circumstances and epochs. Some of these were a complete failure as the uniqueness and sensitivity of every situation cannot be tarred with the same brush. According to Nikolic (2014), an authentic and successful leadership is composed of four elements which are self-awareness, balanced processing, authentic behavior and internalized moral perspective. Authenticity in leadership cannot be ensured without the presence of these four characteristics.

The increasing exposure regarding the topic of AL and attention and contemplation of the practitioners and scholars which it has caught can be well attributed to the fact that authentic and lifelike leaders are not only the cause of elemental, structural and essential success; their influence is rooted well beyond that. As a result, these leaders have to play a greater role in society by dealing different problems and issues. Whether it is any public policy issue or any social, environmental or structural concern, an authentic leader should be capable enough to confront and nip these issues. As Avolio, Gardner, Walumbwa, Luthans, and May (2004) noted, “the unique stressors facing organizations throughout society today call for a new leadership approach aimed at restoring basic confidence, hope, optimism, resiliency, and meaningfulness”.

As per Harter (2002), the ancient Greek philosophers have used the terms of “Know thyself” and “To thine own self be true” in order to envisage and understand the paradigm of authenticity. These maxims indicate that the crux of authenticity is ‘genuineness’, i.e. a person should have the courage to distinguish himself or herself from others and should accept the way one should remain true and loyal to himself/herself. Moreover, authenticity can be understood if it is seen as construction that exists on a scale, and in this way, maximum people stay loyal to their core values, characteristics, beliefs, emotions, personality, preferences, and feelings (Erickson, 1995).

In order to qualify as authentic leaders, it is normally perceived that the person should have gained high levels of authenticity in every matter. Leaders should clearly know

who they are, what are their beliefs and concerns and what things are important for them. Further, they should have the courage and determination to implement those values and beliefs while socializing and networking with people around them Avolio et al. (2004) defined authentic leaders as “those individuals who are deeply aware of how they think and behave and are perceived by others as being aware of their own and others’ values/moral perspective, knowledge, and strengths; aware of the context in which they operate; and who are confident, hopeful, optimistic, resilient, and high on moral character”.

Moving on to the second variable of this study, Organ (1990) termed extra role behavior at the workplace “the good soldier syndrome” (a metaphor indicating accountability, obedience and loyalty on the part of employees){as cited in (Mohammad, Habib, & Alias, 2010)}, eventually Bateman and Organ (1983) called it organizational citizenship behavior. Some believe this behavior is the key factor for achieving organizational effectiveness.

In 1988, Dennis Organ (Organ, 1988), who is generally considered the father of organizational citizenship behavior (OCB), gave a definition of OCB that is most widely used today. According to Organ (1988) OCB can be defined as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization”. According to him, organizational citizenship behavior is neither a binding on an employee nor a mandatory behavior required by him or her. It is in fact an elective and voluntary behavior exercised by the employees of an organization that leads to increased organizational performance and effectiveness. In spite of the well-known formal reward system, this behavior is completely discretionary. In order to evaluate the two main variables included in this study, following section lays out the research objectives.

1.1. Research Objectives

The main aim of this research is to find out the relationship between AL and OCB in the context of Pakistani Electronic News Media Industry, therefore, precisely the objectives include:

- To find out the relationship between Self-Awareness and OCB (if any)
- To identify the relationship between Balanced Processing and OCB (if any)
- To explore relation between Relational Transparency and OCB (if any)
- To investigate the relationship between Internalized Moral Perspective and OCB (if any)

1.2. Significance of the Study

Media industry since the last decade in Pakistan is being considered as the fourth pillar of the state. Its importance in shaping public opinion on various social, political and other issues cannot be undermined. Accountability, openness and transparency are

some of the principles on which media claims to stand and on the same principles it intends to emulate the incumbent governments. The authenticity and authentic leadership in this industry is of significance. On the other hand the concept of Organization Citizenship Behavior within the media industry also contributes towards a healthy organizational environment and relations among workers and leaders. An authentic leader can prove to be a valuable asset for the organization and can lead to the true success of an organization if reflects the idea of Self Awareness, Balanced Processing, Relational Transparency and Internalized Moral Perspective

By emphasizing on the progress and development of their subordinates, authentic leaders are actually ensuring the progress and development of the organization. They develop a learning environment and an open culture in the organization where the leaders and followers hold a relationship based on trust between them. They help their followers to recognize their mistake with an intention to overcome the gaps (Mazutis & Slawinski, 2008). So it can be said that the prime motive of authentic leaders is the betterment and best interest of their employees.

The rationale for selecting these two variables for this study is that these two concepts are based on the principles of ethics and morality, the study therefore, intends to explore the relationship between the said variables within the media industry, as to how do these professionals see authenticity and pro-peer behavior.

2. Literature Review

The concept of leadership is widely under research in recent years and its scope is quite vast and complex (Antonakis, Cianciolo, & Sternberg, 2004). A lot of research is involved in creating the theoretical bases of leadership. According to Hernez-Broome and Hughes (2004), the scope of leadership is far beyond than just developing individual leaders. It should include meticulous contemplation and proper guidance about using the leadership competencies in best ways and the work and life balances. The field of leadership is a very vast field and its further aspects are still emerging. A lot of research is being done on different dimensions of leadership but the topic that has gained increasing popularity and remarkable interest of researchers is ‘authentic leadership’.

An employee needs proper dexterity and competency, capability and motivation to perform a job in best manners. A successful manager or leader is someone who knows how to get maximum output from the employees. One should be capable enough to ensure an open and outgoing environment for the employees. A leader must have the expertise and proficiency to influence employees and to create or enhance their willingness and determination to perform their jobs (Hackman & Oldham, 1975).

The origin of the concept of authenticity is found in ancient Greek philosophy and it is defined in history as “being true to oneself” (Harter, 2002). The basics of authenticity

have been brushed up by Harter (2002) and Erickson (1995) from a psychological and philosophical methodology. Authenticity has been viewed by many positive psychologists as a paradigm that not only includes having ones' own personal experiences, opinions, sentiments, and principles but also enacting according to the true self, this implies that people should work by remaining loyal to their own selves and present what they actually think and believe.

2.1. Authentic Leadership

The initial writings on transformational leadership by Bass and Steidlmeier (1999) can be attributed as the primer of authentic leadership development. In these writings, Bass and Steidlmeier (1999) propose there are two types of transformational leaders; pseudo or quasi versus authentic. They catered to the criticism by resorting that charismatic factor in a leader does not ensure that one is a transformational leader because there are chances that intentions are conceited and sanctimonious. Therefore, these leaders are known as 'pseudo-transformational'. To assuage this glitch, awareness was created regarding the importance and significance of authenticity in a leader's behavior.

Several definitions were developed for AL but conflict among scholars was high, with these arguments and discussions, a theoretical model was put forwarded by Avolio et al. (2004) on AL in 2004. Some of the factors that have been depicted in the model comprise of positive organizational behavior, hope, and recent work on leadership, sentiments and individuality theories. All these factors help in illustrating how the authentic leaders inspire the attitude of their followers such as job satisfaction and commitment. A number of other dimensions of authentic leadership have been researched further which include internalized parameter, interpersonal transparency and managing the information in a stable and composed manner (Avolio et al., 2004) .

The growth and development process of authentic leadership and followership has been illustrated in a self-based model presented by Avolio and Gardner (2005). In this model, it is argued that vigilance and self-awareness is an important element in developing authentic leadership. By self-awareness they refer to ethics, sentiments, principles and individuality of the leaders. Leaders should be true to themselves and be well aware of what they actually believe they are as well as what are their core values and emotions. In this way they can be held accountable for their own development and progress within the organization.

Authentic leadership has been summarized in terms of the significance of leader and follower as well as positive psychosomatic and interpersonal relationships between leader and the follower (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Luthans and Avolio (2003) stated AL as "a process that draws from both positive psychological capacities and a highly developed organizational context. This results in

both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, fostering positive self-development”.

After studying the model of AL, Luthans and Avolio (2003) are of the view that this kind of leadership is different from the traditional psychology and it relinquishes the unconstructive overtones of conventional psychology. The primary focus of authentic leadership is on healthy and positive sensations and constructive ethical environment so as to ensure the true spirit of leadership development which is based on moral outlook of leadership.

Similarly, the positive features and characteristics of an individual’s behavior should have a significant and quantifiable influence because they can directly affect the performance and behavior of the individual (Luthans & Youssef, 2007). Organizational citizenship behavior is generally considered to be an element of positive eccentricity as a demonstrative of positive behavior (Luthans & Youssef, 2007).

2.2. Constructing Authentic Leadership

Luthans and Avolio (2003) studied the topic of authenticity and derived four dimensions that reflect the variable of authentic leadership. All of these dimensions are discussed in detail below:

2.2.1. Self-awareness

Self-awareness basically involves identifying one’s own beliefs, values, sentiments, emotions, strengths, targets, ambitions, goals and limitations. It further includes becoming aware of the impression these traits have on others and responding to people accordingly (Walumbwa et al., 2008).

For a leader it is important to be self-aware because it plays a vital and significant role in exhibiting a transparent behavior when they socialize and interact with those whom they lead. So an authentic leader should be open to constructive criticism from individuals to whom they are leading. Self-awareness helps a leader to behave in an ethical and moral manner as well as persistently in those confronting situations that demand stern and thoughtful interference(Walumbwa et al., 2008).

2.2.2. Balanced Processing

Leaders who scrutinize the facts and figures in an empirical manner both internally (doing self-analysis of oneself) and externally (taking into account constructive criticism from cohorts and leaders) are basically involved in balanced processing. The leader takes into account all the information and does not overlook any fact. An authentic leader does not declare any decision solely on his or her findings. One rather takes into consideration the standpoint of the followers before finalizing a decision (Avolio & Gardner, 2005). This helps to eradicate biases in the decisions. Balanced processing is known to be the core construct of personal veracity (Kernis, 2003).

2.2.3. Moral Perspective

Moving on to the third dimension of AL i.e. Moral Perspective, it helps the individuals or leaders to acquire an approach in which they exhibit a behavior guided by their morals, values, principles and attitudes when they face situations which pressurize them or when they confront challenges in their internal and external environment (Tapara, 2011).

Ethical and moral standards lay the base of the behavior that is depicted by authentic leaders. Authentic leaders are well aware of the expectations that people hold from them with regards to their roles and responsibilities. This makes them behave in a way that is in the best interests of others (May, Chan, Hodges, & Avolio, 2003).

2.2.4. Relational Transparency

The fourth dimension explaining AL is that of Relational transparency, which means how authentic a leader is when he/she interacts with others. The leader should be true and authentic while socializing with others which mean that the leader may not have a biased or misleading personality (Walumbwa et al., 2008). One should behave in a way that reflects true thinking and openness. An authentic leader should not hide or conceal anything from followers. Authenticity, truthfulness and honesty should be the foundation of the relationship between the leader and his followers.

Similarly, trust and sincerity should be present in the relationship between the leader and the followers for ensuring relational transparency. It can be seen as an effective means of self-disclosure. Therefore, the trust and authenticity serve as the foundation of relational transparency (Goldman & Kernis, 2002).

2.3. Organizational Citizenship Behavior (OCB)

Referring to the dependent variable in this study, in 1930's, Chester Barnard indirectly presented the phenomenon of Organizational Citizenship Behavior (OCB), he termed it as an 'extra role behavior' (Barnard, 1938). The extra-role behavior exhibited by the employees in an organization was explained using the terms of 'citizenship' by Katz (1964) a few years later. According to Katz (1964) , the employees who exhibit citizenship behavior find their jobs easier and more convenient. As a result, they are much more valued and appreciated by their employers. The efficiency and effectiveness of the organization will be increased if some extra time is allotted to managers to perform managerial tasks.

Although OCB had been gaining attention of the practitioners for years, thorough and extensive research on Organizational Citizenship Behavior started in 1980's. In 1988, Dennis Organ (Organ, 1988), who is generally considered the father of organizational citizenship behavior (OCB), defined it as a behavior that is not a part of the official and recognized organizational reward system, yet it is related to work. According to Organ (1988), such kind of behavior plays an important role in developing the organization's efficiency and effectiveness.

OCB call for a behavior that includes much more than the performance indicators that constitute the formal job description and the requirements of the organization. Under Organizational Citizenship Behavior, the employees are involved in such actions and arrangements that are not the part of their job description and surpass the minimum job requirements. This directly becomes a cause of the well-being of peers and co-workers and is in the best interests of work groups. OCB can prove to be a critical factor for the survival of an organization (Organ, 1988). Consequently, understanding the favorable impacts and outcomes of this behavior within the organization is very much important. According to a research, there are a lot of factors that can influence and affect OCB in an organization such as employee satisfaction, age, tenure, motivation and leadership. Organizational citizenship behavior has a constructive influence on employee performance and wellbeing which ultimately has an effect on an organization (Zhang & Liao, 2009).

Employees exhibiting the characteristics of organizational citizenship behavior have better performance than those who do not have these characteristics. Employees who engage in OCB are more encouraged and appreciated by their managers (N. P. Podsakoff, Whiting, Podsakoff, & Blume, 2009).

Another positive feature of OCB is that the well-being and comfort of employees is increased when they attempt to assist those who need help (Spitzmuller, Van Dyne, & Ilies, 2008). Moreover, employees exhibiting Organizational Citizenship Behavior tend to have a positive attitude. According to P. M. Podsakoff and MacKenzie (1995) as cited in Zellars, Tepper, and Duffy (2002), OCB not only creates a healthy environment within the organization but also enhances the sales, performance quality and operational efficiency of the organization. Managers also give importance to OCB because it creates an open and cooperative culture in the organization (Buentello, Jung, & Sun, 2008).

2.4. Relationship between AL and OCB

Research on AL and other organizational and individual factors in a current topic, referring to one such factor, Khan, Afridi, and Sarwar (2017) found out that Authentic Leadership has a significant and strong impact on job satisfaction and employee engagement. Researches indicate that there is a positive correlation between authentic leadership behaviors and employees' organizational citizenship behaviors. Avolio and Gardner (2005) state, behavior of authentic leaders makes possible the development of a rational and open work environment. This open and fair culture also affects the attitudes and behavior of employees directly in a positive manner and consequently inspires them to achieve higher levels of contentment, dedication, responsibility, trust and hope. Ilies, Morgeson, and Nahrgang (2005) also supports Luthans and Avolio (2003) and Avolio and Gardner (2005) by arguing that authentic leaders can use positive modeling as a medium to encourage the employees to increase their trust in the leaders and support self-determination..

Walumbwa et al. (2008) in their study concluded that a positive relationship exists between authentic leadership and the employees' organizational citizenship behaviors. The studies indicate that a positive relationship exists between the two variables both at an individual and group level. Leaders playing a critical role in developing a good and helping culture among his/her followers are considered more authentic by making them understand the importance and benefits of assisting and facilitating each other.

According to Amunkete and Rothmann (2015) , authentic leadership and factors related to individual employees are very much related personal factors of employees. Leaders help their followers in developing and shaping their beliefs, trust, principles and attitudes which ultimately enable them to make best choices about their development and improvement (Luthans & Avolio, 2003). When group members have a feeling of belonging to the organization and they can access all the information, they feel much more determined and satisfied. As a result, they are more likely to make best use of the cognitive resources and assets available within a team and perform their tasks without any interruption (Argote, 1999). He further states that this ultimately has a direct influence on the effectiveness of the team.

Based on the literature and objectives of this study, following research hypotheses have been developed:

H₁: Higher the authenticity of a leader, higher the OCB of the followers in Electronic News Media Industry.

H_{1(a)}: Higher the self-awareness of the leader, higher the OCB of the followers in Electronic News Media Industry.

H_{1(b)}: Higher the moral perspective of the leader, higher the OCB of the followers in Electronic News Media Industry.

H_{1(c)}: Higher the balanced processing of the leader, higher the OCB of the followers in Electronic News Media Industry.

H_{1(d)}: Higher the relational transparency of the leader, higher the OCB of the followers in Electronic News Media Industry.

3. Research Methodology

In order to meet the objectives of this research, a quantitative research strategy has been developed. Research uses a cross sectional approach collecting data from respondents at one point in time. With reference to the population the population comprised of employees working at the news channels having their bureau offices in Lahore, Pakistan. For data collection, a convenient sampling strategy was followed and a total of 250 questionnaires were distributed among the respondents from six channels. The category of employees include: Cameraman, IT/ Technical, NLE (Non-

Linear Editors), News Anchor, Producer and Reporter. All the respondents were told to respond to the questionnaire by keeping immediate leader in mind. The standard questionnaire adopted for the study was divided into three sections; the first section was about demographic information of the respondents, whereas the second and third sections were allocated to measurement of the two variables i.e. AL (Walumbwa et al., 2008) and OCB (Smith, Organ, & Near, 1983). The measurement instrument developed by Walumbwa et al. (2008) is the most widely used tool for measuring AL and consists of 16 items for measuring the construct, out of which 4 belong to self-awareness, 5 measure relational transparency, 4 refer to internalized moral perspective, and 3 reflect balanced processing. Whereas, the measure adapted from Smith et al. (1983) also consisted of 16 items.

4. Data Analyses and Findings

The idea of this study is to look at the relationship between AL and OCB. Questionnaires were distributed among 250 employees of 6 different organizations/channels including Cameraman, IT/ Technical, NLE, News Anchor, Production and Reporter. Participants were asked to answer according to their immediate supervisors.

To begin with, the sample characteristics have been explained followed by reliability analysis, normality testing, and correlation and regression tests in order to check the relationships between variables under study. Out of 250 respondents only 220 questionnaires were received in usable manner. Following tables show the sample composition w.r.t gender and designation of the respondents:

Table 1: Gender Wise Sample Composition

Gender	Frequency	Percentage
Male	147	66.8
Female	73	33.2
Total	220	100

Table 2: Designation of the Respondent

Designation	Frequency	Percentage
Cameraman	30	14
IT/ Technical	28	13
NLE	18	08
News Anchor	30	14
Producer	65	30
Reporter	49	22
Total	220	100

4.1. Reliability Analysis

In this section, reliability of the instrument is discussed. Cronbach's Alpha is considered as the indicator of reliability. According to (Sekaran (2003)), if the coefficient is above 0.80 it can be concluded that instrument used is a reliable. In this study, the cronbach' alpha for AL is closer to 0.80 and for OCB is above 0.8 as shown in Table 3:

Table 3: Reliability Statistics

Variable	Cronbach's Alpha	No. of Items
AL	0.824	16
OCB	0.813	16

4.2. Tests of Normality

A test which is used to identify that the sample data is from a normally distributed population or not is known as Normality test. It is very important to know about the normality of the data because you have to apply suitable tests to the data.

Table 4: Shapiro-Wilk Test of Normality

Variable	Statistic	Df	Sig.
Self-Awareness	0.965	220	0.062
Moral Perspective	0.970	220	0.055
Balanced Processing	0.962	220	0.211
Relational Transparency	0.960	220	0.081
OCB	0.983	220	0.112

Referring the statistical data above, it can be concluded that the data for all the dimensions being covered is normally distributed.

4.3. Hypothesis Testing

4.3.1. Correlation Analysis

Pearson Correlation has been used to test the hypotheses. The results have been presented from Table No. 5 to Table No. 8.

Correlation between OCB and Self-Awareness is calculated to be 0.502 at significance level of 0.05. The P-Value is 0.000 which is less than the Significance level, hence a statistically significance but moderate relationship exists between the two items in Electronic News Media Industry.

Table 5: OCB and Self-Awareness

			OCB	Self Awareness
Pearson Correlation	OCB	Correlation Coefficient	1.000	0.502
		Sig. (1-tailed)	.	0.000
		N	220	220
	Self Awareness	Correlation Coefficient	0.502	1.000
		Sig. (1-tailed)	0.000	.
		N	220	220

Table 6: OCB and Moral Perspective

			OCB	Moral Perspective
Pearson Correlation	OCB	Correlation Coefficient	1.000	0.409
		Sig. (1-tailed)	.	0.000
		N	220	220
	Moral Perspective	Correlation Coefficient	0.409	1.000
		Sig. (1-tailed)	0.000	.
		N	220	220

Moving on to the second hypothesis, from the above table, it can be concluded that the correlation between OCB and Moral Perspective is statistically significant, but moderate ($r=0.409$, $P=0.000$) as far as this industry is concerned.

Referring to table no. 7, Correlation between OCB and Balanced Processing is calculated to be 0.400 at significance level of 0.05. The P-Value is 0.000 which is less than the Significance level, hence a statistically significant but moderate relationship exists between these two items as well.

Referring to table no. 8, Correlation between OCB and Relational Transparency is calculated to be 0.317 at significance level of 0.05. The P-Value is 0.001 which is less

than the Significance level, hence a statistically significance but weak relationship exists between these two variables

Table 7: OCB and Balanced Processing

			OCB	Balanced Processing
Pearson Correlation	OCB	Correlation Coefficient	1.000	0.400
		Sig. (1-tailed)	.	0.000
		N	220	220
	Balanced Processing	Correlation Coefficient	0.400	1.000
		Sig. (1-tailed)	0.000	.
		N	220	220

Table 8: OCB and Relational Transparency

			OCB	Relational Transparency
Pearson Correlation	OCB	Correlation Coefficient	1.000	0.317
		Sig. (1-tailed)	.	0.001
		N	220	220
	Relational Transparency	Correlation Coefficient	0.317	1.000
		Sig. (1-tailed)	0.001	.
		N	220	220

4.3.2. Regression Analysis

Correlational analysis concludes that all the four dimensions of Authentic Leadership are related with the concept of Organization Citizenship Behavior as far as the data from the industry under lens is considered. Furthermore, now regression has been used to identify the factor that is likely to contribute more towards OCB. As a result of regression, a prediction model/equation has been given.

Table 9: Linear Regression Analysis

Criterion Variable: Organization Citizenship Behavior (Y)			
Predictors	R ²	B	P-Value
Constant (B ₀)		70.17	
Self-Awareness (X ₁)		47.12	0.002
Moral Perspective (X ₂)	0.613	39.04	0.192
Balanced Processing (X ₃)		34.57	0.007
Relational Transparency (X ₄)		29.19	0.282

As shown in the table above, R² value of the Full Model regression is 0.613 which implies that the independent variables are predicting the dependent variable up to 61.3%. The equation of the full model developed is shown below:

$$\text{Full Model: } Y = 70.17 + 47.12 X_1 + 39.04 X_2 + 34.57 X_3 + 29.19 X_4$$

5. Conclusion, Discussions, and Implications

The study was conducted to find out the relation between the constructs of Authentic Leadership (AL) and Organizational Citizenship Behavior (OCB) with particular reference to the Electronic News Media Industry. The analysis led to the conclusion that all the dimensions of AL were positively related with OCB. Moreover, the regression analysis aided in concluding that the four dimensions of AL under consideration contributed approximately 61.3% in predicting the dependent variable i.e. OCB. Among these four dimensions, Self-Awareness was found to be relatively more correlated with OCB, which implies that if the leader is perceived to be more self-aware then the followers are likely to exhibit more organization citizenship behavior. Furthermore, the regression model also shows the same pattern. As far as the Electronic News Media is concerned, authenticity, transparency are key factors that should be part of the overall culture in this industry because of the importance and sensitivity of the impact of news media/channels on the general public.

6. Recommendations

On the basis of findings discussed in the earlier sections of this paper, following are some of the recommendations proposed by authors:

- A leader must exhibit characteristics of an Authentic Leader like integrity, accountability, consistency, fairness and honesty that might result in an increase in the trust level of the followers.

- Leader must show justice in his/her behaviors, justice creates an encouraging environment which is essential for benevolence.
- Leaders should create an environment and culture that is conducive for learning and encourages teamwork.
- Organizational leaders should promote a culture that enables the workforce to go an extra mile for achievement of organizational goals.
- Current study findings suggest that the leadership should pay more attention to promote OCB because this will help organizations to work effectively and efficiently which at the end will add to the organizational success and growth.

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Organizational Culture and Knowledge Sharing Behavior: Examining Serial Mechanisms

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Abstract

This study aims to examine how hierarchy organizational culture affects the knowledge sharing behavior of teachers in higher education institutions and universities and its mediated link through formal knowledge governance mechanism and knowledge sharing opportunity. A sample of 269 teachers was drawn from university teachers in Pakistan and structural equation modeling is used to test the hypotheses. The results of this study suggest that first, hierarchy organizational culture is positively associated with knowledge sharing behavior of teachers. Second, formal knowledge governance mechanism fully mediated the relationship between hierarchy organizational culture and knowledge sharing behavior. Third, knowledge sharing opportunity fully mediated the relationship between hierarchy organizational culture and knowledge sharing behavior. Finally, the relationship between hierarchy organizational culture and knowledge sharing behavior is sequentially and fully mediated by formal knowledge governance mechanism and knowledge sharing opportunity. Theoretical and managerial implications are discussed followed by limitations of the study along with suggestions for future research.

Keywords: Formal Knowledge Governance Mechanism, Hierarchy Organizational Culture, Knowledge Sharing Behavior, Knowledge Sharing Opportunity.

JEL Classification: M140, M150.

1. Introduction

Knowledge sharing, one of the core processes of knowledge management, is recognized as a source of competitive advantage in the market where competitiveness and dynamic economy are the driving factors to achieve an edge (Wang & Noe, 2010). Nonaka (1994) suggested that efficient information handling and decision making are important for an organization's survival in a changing, complex and uncertain environment. Study of the processes and mechanisms through which an organization creates and transfers knowledge would help to understand the operations of an organization under uncertain conditions and its interactions with environment (Nonaka, Byosiere, Borucki, & Konno, 1994).

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Knowledge sharing is hard to achieve without involving people Yang (2010), Amayah (2013), Akhavan, Hosseini, Abbasi, and Manteghi (2015). Opportunities provided for transferring knowledge are also important as social exchange perspective suggests the vitality of opportunities in an organization for exchange of knowledge (Argote, McEvily, & Reagans, 2003; Huang, Chiu, & Lu, 2013). Few studies have been done in public sector examining knowledge sharing behavior (Singh Sandhu, Kishore Jain, and Ahmad (2011); Amayah (2013); Yusof, Ismail, Ahmad, and Yusof (2012)). Knowledge sharing is influenced by the mode of transmission of knowledge from the source and the motivational disposition (Cabrera & Cabrera, 2005; Huang et al., 2013; Lopez-Nicolas & Meroño-Cerdán, 2009).

The importance of KS has been acknowledged at several KM platforms and in special issues on KS in the top ranking journals in the field of KM. Personal benefits, normative and community related considerations provide opportunities associated with knowledge sharing willingness (Ardichvili, 2008; Amayah (2013)). Employees will not engage in voluntary behaviors like knowledge sharing, if the organizational environment is not encouraging (Yang, 2007). An environment that encourages knowledge sharing facilitates interaction among employees (Amayah, 2013).

Availability of knowledge to others in the organizations is knowledge sharing (Ipe, 2003) and implementing governance mechanisms to capture, store, create and use knowledge is knowledge governance (Foss, Mahoney, & De Pablos, 2010; Huang et al., 2013). Knowledge governance has a pivotal role in knowledge sharing (Husted, Michailova, Minbaeva, & Pedersen, 2012). Extent literature on the area established that KGMs encourage knowledge sharing (Anne Crowne (2009); Liu and Liu (2011)) but other studies report the contrary findings (Huang et al., 2013). Due to inconsistent findings, the area focusing on how knowledge governance processes influence knowledge sharing behavior is underexplored. Organizational culture is a major contributing factor to transfer knowledge and to shape knowledge sharing behavior among individuals (Huang et al., 2013). This study utilizes social exchange perspective along with social identity theory to explain the mechanisms and motivations that facilitate knowledge sharing among organizations.

Knowledge sharing influences the performance of organizations in both public and private sector (Silvi & Cuganesan, 2006). Despite the fact that volume of research is increasing, knowledge sharing remains a challenge for two obvious reasons. First, due to being tacit in nature, knowledge is not easy to transfer and second, knowledge sharing depends on the will of the holder as it is a voluntary behavior (Lin, Lyau, Tsai, Chen, & Chiu, 2010). Organizations can deal with this challenge if they could effectively manage the sources of critical knowledge, i.e., their employees. In the past, samples from the population were drawn from a single sector, either public or private, whereas, in contrast, this study has drawn random samples from both the sectors to broaden the scope of the study. Objective of this study is not only to examine the direct effect

between organizational culture and knowledge sharing behavior but to identify the underlying processes that affect the direct relationship between hierarchy organizational culture and knowledge sharing behavior of teachers in higher education institutions and universities in Pakistan.

2. Theory and Hypothesis

2.1. Organizational Culture and Knowledge Sharing

Organizational culture comprises beliefs, values, norms, rituals and language shared by members of an organization. Attitudes and behaviors of employees are shaped by organizational culture (Durmusoglu, Jacobs, Zamantili Nayir, Khilji, & Wang, 2014). The current study utilizes the Cameron and Quinn's (1999) Competing Values Framework (CVF) dimension of hierarchy culture to measure its influence on knowledge sharing behavior of organizational members.

Four dimensions of organizational culture described by K. Cameron and Quinn (1999) typology are hierarchy, adhocracy, clan and market. CVF differentiates organizational culture on two dimensions. Flexibility-control continuum is the first dimension and internal-external orientation is the second dimension. Controlled organizations are marked by predictable, unchanged and stable, whereas flexible organizations are adaptive and entrepreneurial in nature. Internal orientation means that organization focuses on achieving unity and integration, and on the other hand, an organization which is competitive and inclined to interact with external environment, is said to have an external orientation.

Knowledge sharing has been defined by Jasimuddin and Hasan (2015) as a purposive act that results in exchange of knowledge among organizational members. Jasimuddin and Hasan (2015) suggest that identifying a specific type of organizational culture that supports knowledge sharing is much important as the actual practice of knowledge transfer (Durmusoglu et al., 2014; Lopez-Nicolas & Meroño-Cerdán, 2009). Thus, if one wants to predict the kind of behavior that would be followed by organizational members when it comes to transfer of knowledge, the type of organizational culture adopted by an organization would determine it.

Hierarchy culture supports the mechanistic governance approach through formal rules, norms, policies and procedures (Lopez-Nicolas & Meroño-Cerdán, 2009). Paro and Gerolamo (2017) found that hierarchy culture characterized as formal and structured governs the behavior of people through rules and procedures. According to social exchange theory, knowledge sharing involves reciprocity and hierarchical relations in a work setting encompass the relational aspect of exchange process, making the later unnecessary (Serenko & Bontis, 2016). To put it differently, advice part of a relation between a boss and a subordinate is unsuitable outside the hierarchical subordination context (Caimo & Lomi, 2015). Employees are involved in knowledge sharing behaviors at three levels of hierarchy, i.e., immediate supervisor, group and business

units. Coordination among different hierarchical levels improves knowledge sharing behavior (Sveiby & Simons, 2002; Yang, 2007). These mechanisms reward accomplishments and greatest motivation is the job security. Effectiveness means permanence and achievement of goals. Public sector organizations are typical examples of hierarchy culture (Lopez-Nicolas & Meroño-Cerdán, 2009). A recent study on Ghanaian culture found that public sector workers in Ghana share knowledge because they want to see their organization successful, whereas Ghanaian organizations are typical examples of hierarchy culture (Boateng, Dzandu, & Tang, 2016). Another characteristic of hierarchy culture is its internal orientation where security, conformity and predictability are used to manage employees. These organizations emphasize success, permanence and stability through control and tall structures. Dependability, efficiency and low cost measure the success of an organization (Cameron & Quinn, 1999). Hence, this study hypothesizes that,

H₁: *Hierarchy organizational culture will positively influence the knowledge sharing behavior.*

2.2. Formal Knowledge Governance Mechanism as a Mediator

Extant literature has prompted academic research on a number of factors that facilitate or hinder knowledge sharing, but the underlying mechanisms and processes through which these factors influence knowledge sharing have not been fully addresses stimulating further scientific inquiry (Jeung, Yoon, & Choi, 2017). Objective of this study is not only to examine the direct effect between organizational culture and knowledge sharing behavior but to identify the underlying processes that affect the direct relationship between hierarchy organizational culture and knowledge sharing behavior of employees.

Amayah (2013) examined the impact of organizational culture on knowledge sharing. Friesl, Sackmann, and Kremser (2011) studied how hierarchy effects knowledge sharing. Jasimuddin and Hasan (2015) examined the moderating effect of technology infrastructure on the relationship between formalization and sharing of knowledge. These are a few of the examples of mediating mechanisms from the literature. There could be other potential intervening variables that could affect the direct link between organizational culture and knowledge sharing behavior.

Few studies have examined the direct and/or indirect effects of organizational culture on knowledge sharing (Friesl et al., 2011; Jasimuddin & Hasan, 2015; Amayah, 2013). There could be potential intervening variables that affect the direct link between organizational culture and knowledge sharing behavior. This study has explored a few of them.

Micro level knowledge sharing research has relied on theory of planned behavior and the social exchange theory to explain the phenomenon associated with knowledge sharing (Akhavan et al., 2015; Huang et al., 2013). Social exchange describes that

employees wish to maintain long term relationships on reciprocal basis. Reciprocal relationships encourage employees to involve in knowledge transfer (Huang et al., 2013).

In case, organizational culture is not supportive for knowledge sharing, barriers would be recognized in successful knowledge transfer and knowledge sharing would thus become a chore rather than a desirable behavior an individual exhibits willingly (Aquilani, Abbate, & Codini, 2017). Some support mechanism is recommended under these circumstances for employees to engage in KSB as organizational culture is among one of the challenges identified for successful knowledge transfer (Perrigot, Herrbach, Cliquet, & Basset, 2017). Formal knowledge governance mechanism consists of reward and incentive systems, performance management, trainings, promotions, bonuses, and performance-based pay. All these tools are used to encourage employees to share knowledge (Huang et al., 2013; Rathi & Given, 2017; Wang & Noe, 2010). Extant literature has discussed the impact of knowledge governance mechanism, organizational culture and structure on knowledge sharing behavior (Huang et al., 2013; Jasimuddin & Hasan, 2015).

The current study has introduced formal knowledge governance mechanism as a process that mediates the positive relationship between hierarchy organizational culture and knowledge sharing behavior which would help to establish that organizational culture that is usually considered a barrier in sharing knowledge would facilitate the knowledge sharing process when proper mechanisms are introduced in an organizational setup. Thus, it is proposed that,

H₂: *Formal knowledge governance mechanism mediates the relationship between hierarchy organizational culture and knowledge sharing behavior.*

2.3. Knowledge Sharing Opportunity as a Mediator

Opportunity is the extent of conduciveness of situational context to accomplish an activity MacInnis and Jaworski (1989), and it also incorporates the enablers and barriers towards a desired behavior (Gruen, Osmonbekov, & Czapslewski, 2006; Kettinger, Li, Davis, & Kettinger, 2015). An important antecedent to knowledge sharing is knowledge sharing opportunity in the form of interaction between knowledge source and recipient which facilitates transfer of knowledge (Huang et al., 2013; Kang & Kim, 2017). Workplace characteristics that facilitate or constrain certain behaviors are molded by organizational culture (Schneider, Smith, & Sipe, 2000). Kettinger et al. (2015) considered organizational support for information technology as a form of knowledge sharing opportunity. Relational opportunities to share knowledge through interaction among members develop an environment of trust and friendship that influence the knowledge sharing behavior of organizational members (Huang et al., 2013; Ipe, 2003). Thus, when organizational members have relational opportunities to share knowledge, interpersonal relationships are improved among individuals in the organization that improve their knowledge sharing behavior (Huang et al., 2013).

Hierarchy organizational culture adopts formal mechanisms (Turner & Pennington, 2015). Opportunity to engage in knowledge sharing activities is thus influenced by structural factors including managerial support; organizational culture and design (Foss et al., 2010; Turner & Pennington, 2015). Studies have examined conducive organizational environment facilitates employee's creativity; they are encouraged to take risks, and are allowed to exchange information openly, more likely behaviors would be examined among them (Gilson & Shalley, 2004). Hence, we deduce that when organizational culture and support systems provide employees with the opportunities to share knowledge with other members in the organization, they will be more likely to exhibit desirable behavior, i.e., knowledge sharing behavior. Thus, it can be deduced that hierarchy organizational culture enables knowledge sharing opportunities that are important for actual knowledge sharing to occur. Therefore, it is proposed that,

H₃: *Knowledge sharing opportunity mediates the relationship between hierarchy organizational culture and knowledge sharing behavior.*

2.4. Serial Multiple Mediation Effect of Formal Knowledge Governance Mechanism and Knowledge Sharing Opportunity

Knowledge holder should be motivated by some rewards to share knowledge and the recipient should also be motivated enough to gain knowledge (Kang & Kim, 2017). Type of reward system adopted by an organization has close association with the organizational structure, which in turn affects the pattern of desirable practices like knowledge sharing (Durmusoglu et al., 2014). Similarly, formal rules and policies are distinguishing features of mechanistic governance system that have to be strictly abided by everyone involved in an organization (Rathi & Given, 2017). Formal support mechanisms serve as the backbone in a hierarchical setting for effective knowledge sharing among members (Perrigot et al., 2017).

Prior research has shown that employees' opportunity is one of the key mediating mechanisms between formal knowledge governance mechanism and knowledge sharing behavior (Huang et al., 2013). Few studies have examined the direct relationship between organizational culture and outcomes (Reis, Trullen, & Story, 2016). Others have studied opportunity as a mediator between knowledge governance mechanism and knowledge sharing behavior (Huang et al. (2013)). There are inconsistent results with regard to opportunity when explaining knowledge sharing behavior. Therefore, Huang et al. (2013) have recommended that in future, studies may be undertaken that develop and test multiple level frameworks to examine knowledge sharing behavior with a diverse set of predictors. Therefore, this study has examined two intervening variables that operate sequentially between the direct relationship between hierarchy organizational culture and knowledge sharing behavior. The two mediators in the study are formal knowledge governance mechanism. Building upon social exchange theory, this study examined the mediation effects of formal knowledge governance mechanism and knowledge sharing opportunity in a sequential manner.

Thus, on basis of literature review, formal knowledge governance mechanism and knowledge sharing opportunity are being introduced as two mediators in this study. Therefore, it is hypothesized that,

H₄: *The relationship between hierarchy organizational culture and knowledge sharing behavior is sequentially and fully mediated by formal knowledge governance mechanism and knowledge sharing opportunity.*

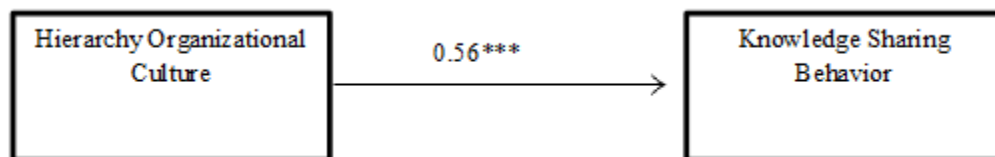


Figure 1: Relationship between independent and depended variable.

H₁: *Hierarchy Organizational Culture → Knowledge Sharing Behavior: 0.56****

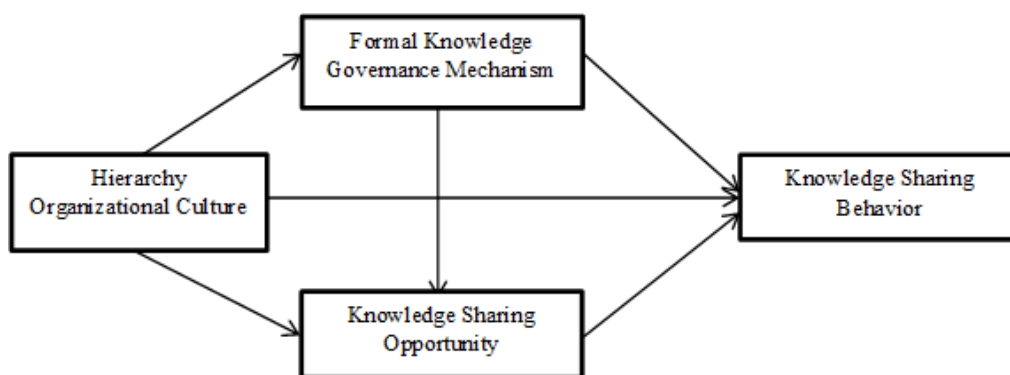


Figure 2: Theoretical Framework with two sequential mediators.

H₂: *Hierarchy Organizational Culture → Formal Knowledge Governance Mechanism → Knowledge Sharing Behavior*

H₃: *Hierarchy Organizational Culture → Knowledge Sharing Opportunity → Knowledge Sharing Behavior*

H₄: *Hierarchy Organizational Culture → Formal Knowledge Governance Mechanism → Knowledge Sharing Opportunity → Knowledge Sharing Behavior*

3. Research Methodology

3.1. Data Collection and Sample Characteristics

Data for the current study was collected from Higher Education sector of Pakistan. Social identity theory has been deemed successful in explaining individual attitudes and behaviors when sample is drawn from a collectivistic culture. According to Hofstede

(1984), Pakistan represents a collectivistic society. It means employees share strong identity with their organization making the impact of typical hierarchical culture on knowledge sharing behavior of employees more expressive. Pakistani employees are the most suitable population to choose subjects from because it provides a distinct setting with significant scope for the study.

The collectivistic approach is manifested in relationships among individuals in different roles. An undesirable behavior may put the person in an awkward situation leading to embarrassment and shame. So, individuals are expected to take responsibility on behalf of fellow members. Management works on the principle that management is for groups not for individuals, hence, in-group and out-group approaches may be practised in the recruitment, selection and hiring practices that indirectly affect the behaviors exhibited by employees (Khilji, 2004).

Higher education is an example of open system that absorbs the general environment trends from outside and creates and transfers knowledge to the outside (Amayah, 2013). Thus, the nature of this sector makes it a potential area to be explored in the context of knowledge sharing behavior.

Population for the study consisted of all faculty members/teachers in public and private sector universities and Higher Education Institutions in the cities of Rawalpindi and Islamabad. Survey was administered personally to all the respondents in the sample. Universities were randomly chosen from both the sectors using stratified random sampling. Survey was distributed to all the four levels of faculty members, i.e., lecturers, assistant professors, associate professors and professors. 400 questionnaires were administered among 12 universities/HEIs. 290 were returned and the size of the useable survey was 269 making a return rate of 67.25%. along with other measures to ensure the quality of data. Those having less than one year of experience with their current organization were not included in the sample as they might not be knowledgeable about the culture, structure and policies of their organization so well.

Among the demographic variables, age, gender, sector, designation, qualification and experience were measured. Most of the respondents were male constituting 67.3% of the sample, 64.7% of the total sample were in the age bracket of 26-35 years, public sector respondents were 67.3% of the sample and majority of the respondents, i.e., 76.6% were either lecturers or assistant professors. Minimum experience was at least one year with the current organization and minimum qualification was Masters/MS degree or equivalent.

3.2. Definitions of Terms and Concepts and Measurement Scales Utilized

3.2.1. *Hierarchy organizational culture*

This is a type of organizational culture that is based on structures and controls ad focus on efficiency, stability and doing things right (Cameron & Quinn, 2011). Organizational Culture Assessment Instrument (OCAI) developed by (Cameron &

Quinn, 2011) was used to measure hierarchy organizational culture consisting of six items.

3.2.2. *Formal Knowledge Governance Mechanism*

It refers to the performance evaluations, incentives and other reward systems, promotion bonuses, performance based pay, trainings developed by organization to support knowledge sharing (Huang et al. (2013); Wang and Noe (2010)). This study used the scale adopted by Huang et al. (2013) and developed by Björkman, Barner-Rasmussen, and Li (2004) to measure formal knowledge governance mechanism with three items.

3.2.3. *Knowledge Sharing Opportunity*

It denotes an environmental situation that demonstrates a favorable juncture of circumstances for enabling action (Siemsen, Roth, & Balasubramanian, 2008). Three item scale was used to measure knowledge sharing opportunity.

3.2.4. *Knowledge Sharing Behavior*

Knowledge sharing behaviors represent a set of behaviors in which information is exchanged and support is provided to others as explained by (Collins & Smith, 2006). Knowledge sharing behavior was used measuring three item scale adopted from (Bock, Zmud, Kim, & Lee, 2005). The scale items include e.g., organizational employees share business manuals, models, and methodologies with each other. The survey was floated in the original language, i.e., English and minimum qualification of the respondents was Master/MS degree. Constructs were measured using 7-point Likert type scale as the original scales were developed to measure responses on 7-point interval scale. Three HRD and HRM scholars reviewed the questionnaire before administering that confirmed the face validity of the scales used in the study.

4. Data Analysis and Results

Table 1: Mean, Standard Deviation and Correlations

		1	2	3	4
1	Hierarchy organizational culture	0.71			
2	Formal knowledge governance mechanism	0.64**	0.59		
3	Knowledge sharing opportunity	0.70**	0.73**	0.85	
4	Knowledge sharing behavior	0.59**	0.67**	0.67**	0.63
	Mean	4.99	4.97	4.71	4.89
	SD	1.29	1.42	1.69	1.28
	Min	1	1	1	1.71
	Max	7	7	7	7
	AVE	0.94	0.81	0.94	0.92
	CR	0.94	0.81	0.94	0.92

CR is the composite reliability; AVE (average variance extracted) values are given on the diagonal; ** $p < 0.01$.

Table 1 shows the mean, standard deviation, minimum, maximum, average variance extracted and composite reliability for the study variables. Common validation process was used to assess the unidimensionality, reliability and validity of the measures involved. Chronbach alpha coefficient gave the reliability values for all latent constructs. All the values were fairly above the threshold value of 0.7. To further confirm the unidimensionality, EFA was done. Convergent validity and discriminant validity was assessed through CFA. Measurement model fitted the data well in CFA. t-values corresponding to factor loadings were greater than 1.96 and factor loadings exceeded 0.7. It reveals the existence of convergent validity. There exists high composite reliability as ranging from 0.81 to 0.94 in Table 1. Discriminant validity was confirmed as Average Variance Extracted (AVE) was more than the correlation between any given construct and the other.

Podsakoff, MacKenzie, and Podsakoff (2012) recommended various measures to deal with the issue of common method bias (CMB) for studies that involve self-report measures. Anonymity of sample respondents, improved item phrasing and evaluation apprehension reduction are a few of the procedural measures taken to deal with CMB. Harman's one factor analytic test ensured that CMB was not involved. Total variance explained in the test was below 47% and variance below 50%, an indicator that CMB was not an issue in this study. Assumptions of Structural Equation Modeling (SEM) were checked and tested before running the structural model. Assumptions are normality and linearity of data, no multicollinearity among variables and homoscedasticity.

4.1. Hypothesis Testing

The model hypothesized, thus explained 53.1% variance in formal knowledge governance mechanism, 72.8% of knowledge sharing opportunity, and 60.6% in knowledge sharing behavior. As a first step towards testing the hypothesis that formal knowledge governance mechanism and knowledge sharing opportunity would fully and sequentially mediate the relationship between independent variable and dependent variable, direct relationship between hierarchy organizational culture and knowledge sharing behavior was estimated. Hierarchy organizational culture was found to be positively related with knowledge sharing behavior, ($b = 0.56$, $p < 0.001$) and hence, Hypothesis 1 was accepted.

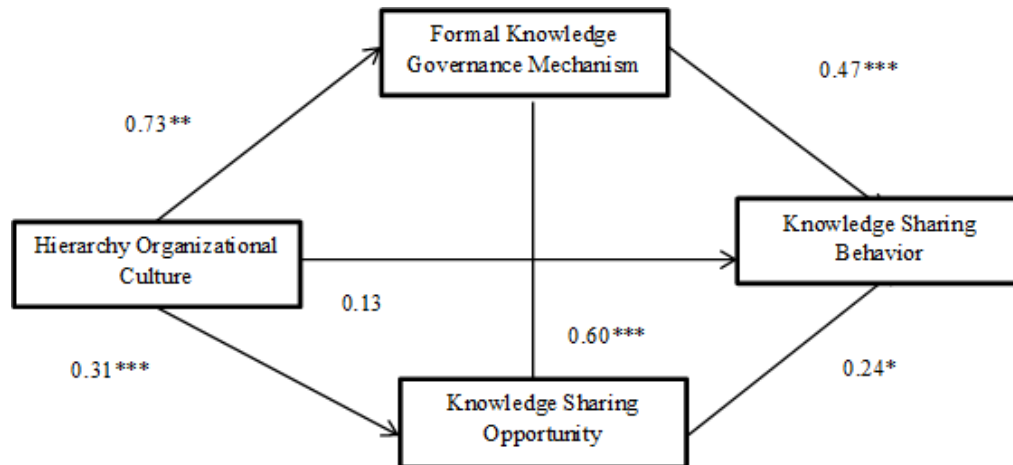


Figure 3: Path coefficients, ***p<0.001, **p<0.01, *p<0.05.

H₂: Hierarchy Organizational Culture → Formal Knowledge Governance Mechanism → Knowledge Sharing Behavior: 0.35*

H₃: Hierarchy Organizational Culture → Knowledge Sharing Opportunity → Knowledge Sharing Behavior: 0.27*

H₄: Hierarchy Organizational Culture → Formal Knowledge Governance Mechanism → Knowledge Sharing Opportunity → Knowledge Sharing Behavior: 0.13

Table 2: Path Coefficients, Direct and Indirect Effects for Mediation Models

From → to (b)	1	2	3	4
Hierarchy Organizational Culture (1)		0.73***	0.31***	0.13
Formal Knowledge Governance Mechanism (2)			0.60***	0.47***
Knowledge Sharing Opportunity (3)				0.24*
Knowledge Sharing Behavior (4)				
Indirect effect		b	CI _{low}	CI _{high}
Hierarchy Organizational Culture → Formal Knowledge Governance Mechanism → Knowledge Sharing Behavior		0.35	0.32	0.71
Hierarchy Organizational Culture → Knowledge Sharing Opportunity → Knowledge Sharing Behavior		0.27	0.24	0.56
Hierarchy Organizational Culture → Formal Knowledge Governance Mechanism → Knowledge Sharing Opportunity → Knowledge Sharing Behavior		0.13	0.52	0.75
Direct effect				

Hierarchy organizational culture→knowledge sharing behavior	0.11	-0.10	0.34
Total effect			
Hierarchy organizational culture→knowledge sharing behavior	0.86	0.52	0.75
R²			
Formal knowledge governance mechanism			53.1%
Knowledge sharing opportunity			72.8%
Knowledge sharing behavior			60.6%

Two-tailed tests for path coefficients with 95% confidence level, *** p<0.001
 $\chi^2_{(139)} = 273.356$, $p < 0.001$, CMIN/DF = 1.97, TLI = 0.97, IFI = 0.97, RFI = 0.93, NFI = 0.94, CFI = 0.97, RMSEA = 0.06.

Table 2 gives the coefficients of structural model coefficients and three path-mediated model. By utilizing this approach, indirect effects of both the mediators can be separated. Hypothesized model offered the acceptable fit to the model. $\chi^2_{(139)} = 273.356$, $p < 0.001$, CMIN/DF = 1.97, TLI = 0.97, IFI = 0.97, RFI = 0.93, NFI = 0.94, CFI = 0.97, RMSEA = 0.06.

Six paths model was investigated as in the Figure 3 to find out the mediation effects. Indirect effects were estimated with bootstrapping, 95% confidence interval, and bias-corrected (N=5000). Hypothesis 2 proposed that formal knowledge governance mechanism mediates the relationship between hierarchy organizational culture and knowledge sharing behavior. The indirect effect of hierarchy organizational culture on knowledge sharing behavior through formal knowledge governance mechanism was moderate (b=0.35), with 95% CI [0.32 0.71], a bootstrap estimate, and it was statistically significant. Thus, confirming indirect effect, and hypothesis 2 was accepted. Hypothesis 3 proposed that knowledge sharing opportunity mediates the path between hierarchy organizational culture and knowledge sharing behavior and it was supported (b=0.27, 95% CI [0.24 0.56]). Serial multiple mediation effect through formal knowledge governance mechanism and knowledge sharing opportunity was measured to test Hypothesis 4. The indirect effect of hierarchy organizational culture on knowledge sharing behavior through formal knowledge governance mechanism and knowledge sharing opportunity was found to be statistically insignificant (b=0.13, 95% CI [-.1 0.34]). Thus, we can say that the positive relationship between hierarchy organizational culture and knowledge sharing behavior was fully and sequentially mediated by formal knowledge governance mechanism and knowledge sharing opportunity.

5. Conclusion

Drawing upon social exchange theory, purpose of the study was to examine how hierarchy organizational culture impact knowledge sharing behavior through formal knowledge governance mechanism and knowledge sharing opportunity respectively,

and also examined the influence of hierarchy organizational culture on knowledge sharing behavior through formal knowledge governance mechanism and knowledge sharing opportunity.

The study showed that there is a positive relationship between hierarchy organizational culture knowledge sharing behavior of employees, providing support to the idea that hierarchy organizational culture has a positive influence on knowledge sharing behavior leading to Hypothesis 1 being accepted. When there is full mediation, the direct effect of independent variable on dependent variable becomes insignificant. It means that in presence of mediating mechanism, independent variable will no longer affect dependent variable and all the change in dependent variable would be due to intervening or mediating variable. If the effect of independent variable still remains significant after a mediating mechanism is introduced, we conclude that there is partial mediation. Partial mediation signifies that independent variable still has some effect on dependent variable when a mediating process is introduced between independent and dependent variable (Baron and Kenny (1986); Preacher and Hayes (2008)). There was full mediation when the two mediators were introduced in the model of this study as shown by the results of hypothesis 2, 3 and 4. To further elaborate the findings, we can say that the positive relationship between hierarchy organizational culture and knowledge sharing behavior is fully and serially multiple mediated by formal knowledge governance mechanism and knowledge sharing opportunity, which supports Hypothesis 4. It is a major finding and contribution of this study that formal knowledge governance mechanism and knowledge sharing opportunity play an important and significant role as sequential mediators between hierarchy organizational culture and knowledge sharing behavior, respectively. It means that in presence of either formal knowledge governance mechanism or knowledge sharing opportunity, there would be no effect of hierarchy organizational culture on knowledge sharing behavior of employees when these mechanisms are introduced separately as supported by hypotheses 2 and 3. Furthermore, when both mediators are simultaneously introduced in the model in a sequential manner, there is no effect of hierarchy culture on knowledge sharing behavior. It signifies that the only change in knowledge sharing behavior is due to governance mechanism utilized by an organization and the knowledge sharing opportunity it provides to them. When these mechanisms are present, the impact of culture is minimized and there is no considerable change in knowledge sharing behavior of employees due to organizational culture. This is in support to hypothesis 4.

5.1. Theoretical Implications

This study has a contribution to several streams of research. First, it introduced two new mediating mechanisms between the direct relationship of hierarchy organizational culture and knowledge sharing behavior, enriching the organizational culture and knowledge sharing behavior literature. An important implication follows that the only driving force to share knowledge in the organizations is not the cultural norms and

values, but equally important are the knowledge sharing mechanisms and opportunities provided that employees can avail in context of knowledge sharing.

Secondly, in extant literature, the most common theory employed to explain knowledge sharing and its predictors is theory of planned behavior. But this study contributed to the literature by building theory on social identity and social exchange streams.

Third, this study protracted the Huang et al. (2013) model by introducing hierarchy organizational culture as a predictor of formal knowledge governance. Introduction of two mediators further extended the Huang et al. (2013) model.

Fourth, relationships among knowledge governance mechanisms, opportunities to share knowledge and knowledge sharing behavior are not established in a single direction and results are inconsistent in previous studies. This study is a significant contribution to confirm the positive associations between knowledge sharing behavior and its predictors.

Finally, this study contributed to organizational behavior literature by examining the relationship between knowledge sharing behavior and its predictors. The findings imply that organizational culture improves knowledge sharing behavior of employees but formal knowledge governance mechanism combined with knowledge sharing opportunity is important to enhance knowledge sharing behavior of employees.

5.2. Managerial Implications

This study has significant contributions for practitioners. This study kindles the practitioners and managers to re-consider the role formal knowledge governance mechanism can play for creating synergy to upsurge knowledge sharing opportunities that contribute to improvement in knowledge sharing behavior.

Second, if managers are aware of the fact that existing organizational culture is not aligned with the knowledge governance mechanisms, employees would have lesser opportunities to share knowledge, and as a consequence, they may not display knowledge sharing behavior.

Third, in previous studies, it has been found that organizational climate, knowledge governance mechanisms and knowledge sharing opportunity shape the knowledge sharing behavior (Huang et al., 2013; Titi Amayah, 2013). Therefore, managers should design and develop organizational cultures that exploit the full advantages of knowledge governance mechanisms to provide opportunities to share knowledge that consequently would be observed as knowledge sharing behavior among organizational members.

Fourth, Pakistani organizations are representative of long hierarchies and structures are more pronounced in Higher Education institutions and universities in both public and

private sectors. Contrary to the common understanding that centralization, and formalized structures are a barrier to effective knowledge sharing Amayah (2013), others have found that culture also facilitates knowledge sharing (Durmusoglu et al., 2014). This study also found that hierarchy organizational culture and formal knowledge governance mechanism facilitate employees in providing opportunities to share their knowledge, expertise, skills, etc. so that they exhibit knowledge sharing behavior.

Finally, as a result of recent reforms, higher education sector has been revived by the establishment of Higher Education Commission (HEC), Medium Term Development Framework and establishment of Quality Enhancement Cell. Financial, procurement and administrative procedures have been streamlined. Practitioners and managers in higher education sector can develop knowledge governance mechanisms in their hierarchy cultures that would create more knowledge sharing opportunities for employees and contribute towards better knowledge sharing among organizational members.

5.3. Limitations and Future Research

Contributions of this study should be acknowledged while allowing the limitations to be realized that lead towards future directions. The first limitation of the study is its self-report measures and cross-sectional nature of data collected. Although common method bias has been treated by taking steps as recommended by Podsakoff et al. (2012), in future, it could be avoided by collecting longitudinal data at two points in time.

Second limitation is the factor of social desirability bias that may have contaminated the data. It is a major cause of shared method variance (Hur, Moon, & Ko, 2016; Podsakoff et al., 2012). This issue can be overcome by measuring social desirability bias directly in future studies.

Third, as the target population was faculty members in higher education sector of Pakistan, it has low external validity. Samples may be drawn from other industries like manufacturing, services, IT, medical to test the external validity of the findings. Fourth, although individual behavior is manifested in organizational behavior, this study did not adopt any controls for organizational effects that might be involved in individual effects. A remedy that might be suggested for future studies is to employ a multi-level approach such as hierarchical linear modeling. In-depth interviews may be conducted a part of qualitative research in future studies.

Fifth, the study may be replicated with the same latent constructs but the unit of analysis could be teams or groups to examine how this mechanism operates when individuals have to perform collectively and when joint opportunities are provided to share knowledge by organizational culture through employing knowledge governance mechanisms.

Finally, to retain parsimony, no boundary conditions are specified in this study, and they may have potential positive or negative effect on the relationship between organizational culture and knowledge sharing behavior. Boundary conditions may be specified by contextual variables like leader-member-exchange, loyalty, trust, leadership style, and/or different fit measures.

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Are gold markets weak form efficient? Evidence from China, India and Russia

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Abstract:

The main purpose of this study is to determine the weak form efficiency of the emerging gold markets such as China, India and Russia with the special focus on testing random walks (RWS) and martingale difference sequence (MDS) hypotheses during different periods of time. This study uses bias free statistical techniques such as runs test, parametric variance ratio tests and recent modified non-parametric variance ratio tests based on ranks and signs by using daily spot gold prices from January 12, 1993 to October 28, 2016. Findings of the study suggest that Russian gold market is weak form efficient throughout the period whereas other two markets are found weak form efficient during second sub period only that is, January 2000 to December 2005.

Keywords: *variance ratios, Ranks and signs, emerging gold markets, Random walks, Martingale.*

JEL classification: G1, G14, G17.

1. Introduction

Gold is considered as one of the most important and precious metals (Blose, 1996; Blose and Shieh, 1995; Dubey et al., 2003). It serves the different purposes for agents in the market. First, it is used as raw material for producing technological and electronic goods (Rockerbie, 1999; Solt and Swanson, 1981). Second, it is used as an ornaments such as jewelry (Batchelor and Gulley, 1995; Baur and McDermott, 2010). Third, it is used as security for hedging risk and portfolio diversification (Davidson et al., 2003; Wang et al., 2011). Fourth, it is used as store of value and safe haven for investors and central bankers (Baur and Lucey, 2010; Baur and McDermott, 2010). Fifth, it is used as currency such as coins and medium of exchange (Chang et al., 2013; Sjaastad, 2008). Keeping in view these facts the study of gold price behavior has been a topic of interest for researchers. Because of various uses of gold (e.g technology, monetary, jewelry, investment and central banking) understanding the behavior of gold returns in weak form efficient market context is very important for researchers, regulators, policy makers and investors. Belaire-Franch and Opong (2010) mention that researchers usually try to understand how the security prices behave over time, whereas the practitioners and investors (such as speculators, hedgers and arbitrageurs) try to exploit

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the behavior of market inefficiencies. On the other hand, regulators and policy makers try to increase the pricing efficiency of financial assets, and in order to increase this pricing efficiency they increase the speed of information flow in gold markets. The behavior of gold price returns is, therefore, very important to understand for participants and key actors in financial markets.

A vast literature is available that has focused on gold prices and markets and those various studies have analyzed the gold in different strands. First strand of literature has determined the cointegration and/or causality relationship between macroeconomic variables and gold prices/markets by using different ARCH models (Sjaastad and Scacciavillani, 1996; Tully and Lucey, 2007; Zhang and Wei, 2010). Second strand of literature has examined the spillovers, linkages, interdependencies and efficiencies amongst the gold markets (such as US, UK and Japan) and between gold and other markets (such as other precious metals, bonds and stocks) (Caminschi and Heaney, 2014; Chang et al., 2013; Ewing and Malik, 2013; Xu and Fung, 2005). Third strand of literature has examined the role of gold as security for risk and portfolio diversification, derivative and hedging instrument, store of value and safe haven (Baur and Lucey, 2010; Baur and McDermott, 2010; Davidson et al., 2003; Wang et al., 2011). The final strand of literature, which is directly related to the purpose of this study, has analyzed the predictability of gold market returns (Baur, 2013; Blose and Gondhalekar, 2013; Mills, 2004; Monroe and Cohn, 1986; Pierdzioch et al., 2014; Tschoegl, 1980; Wang et al., 2011; Yu and Shih, 2011).

Literature available on the weak form efficiency of gold markets is, however, not free from limitation. Results of most of those studies are mixed even within the same study, such as some of the studies provide evidence for the existence of weak form efficiency in gold markets (Beckers, 1984; Ho, 1985; Pierdzioch et al., 2014; Tschoegl, 1978), whereas other studies indicate that the gold markets are not weak form efficient (Basu and Clouse, 1993; Baur, 2013; Blose and Gondhalekar, 2013; Narayan et al., 2010; Shafiee and Topal, 2010) whilst other studies show the mixed results (Parisi et al., 2008; Wang et al., 2011).

Possible reasons for inconsistent results about gold markets efficiencies are that most of the previous studies have used the techniques such as serial correlation tests, autoregressive and Autoregressive integrated moving average (ARIMA) models which may not be successful due to presence of different econometric issues in the data such as heteroscedasticity and non-normality. Moreover, Lim and Brooks (2011) suggest that there is new paradigm which plays its role in the efficient markets, that is, adaptive market hypothesis (AMH). This new hypothesis states that efficient market hypothesis and behavioral finance may logically and consistently be persistent with each other and market efficiency does not remain fixed over time but changes with the passage of time (Lim and Brooks, 2011).

Keeping in view the limitations in the existing literature, this study extends previous literature in two directions. First, it uses robust statistical techniques such as variance ratio tests proposed by Lo and MacKinlay (1989) and Wright (2000) Lim and Brooks, 2011 for testing strict random walks (RWS) and relaxed martingale difference sequence (MDS) hypothesis. Second, this study divides data into different periods to

determine whether the efficiencies of the gold markets change with the passage of time. Rest of the paper is organized as follows. Section 2 describes data sample, descriptive statistics of the data, runs test, and various parametric and non-parametric variance ratio tests; section 3 provides discussion and analysis of results and section 4 concludes the paper.

2. Data and Methodology

2.1. Data and Sample

Daily data for spot gold prices is taken from world gold council (WGC) website for Russia, India, and China, that covers the period from January 12, 1993 to October 28, 2016. This study focuses on these three emerging countries only out of four BRIC countries since the data for Brazil is not available at WGC website. Returns are then calculated by taking the log difference of daily spot gold prices:

$$r_t = \ln\left(\frac{p_t}{p_{t-1}}\right)$$

Where \ln is the natural logarithm and p_t and p_{t-1} indicate daily spot gold prices at time t and $t - 1$ respectively.

Following Mobarek and Fiorante (2014), who tested the weak form efficiency of BRIC (Brazil, Russia, India and China) equity markets, this study further extends analysis by dividing the data into three sub groups². Like equity markets as suggested by Mobarek and Fiorante (2014), there is possibility that the changes in market environments as well as changes in reasonable structural breaks may have changed the market efficiency of gold markets as well. Data for first subgroup, which covers period from January 1993 to December 1999, is mainly due to the Asian crisis started in 1997 which directly affected the Asian countries. Russia also faced serious crisis in 1998 caused by Asian crisis. Second subgroup, which covers period from January 2000 to December 2005, focuses “dotcom bubble,” which had also great impact on major industrialized countries. Last period that is from, January 2006 to October 2016 covers 2008 global financial crises.

Table 1 provides descriptive statistics of gold returns for whole sample as well as three subsamples. On average mean returns and standard deviation for Russian gold market are higher than Indian and Chinese gold markets specially for whole sample as well as for sub_period 1 (1993-1999) and sub_period 3 (2006-2016), High returns and standard deviation for Russia indicate that gold market in Russia is relatively riskier. Hence returns are higher for Russia as well to compensate the extra risk. Minimum and

²Mobarek and Fiorante (2014) tested weak form efficiency of BRIC equity markets by covering the period from September 1995 to March 2010. They further divided the data into three sub periods i.e sub period 1: 1995:09-1999:12, sub period 2: 2000:01-2005:12, sub period 3:2006:01-2010:03, in order to confirm whether efficiency of equity markets may have evolved over time.

maximum values also indicate the higher volatility for Russia that is around 47% to -36% for whole sample period as well as for first sub_sample period (1993-1999). However, for second sub_sample period all three markets become equally volatile having maximum and minimum values around 6.5% to -5.4% respectively. Hence it can be concluded that in period two all three markets provide almost equal mean returns and are equally risky as well. Jarque Berra statistics indicate that returns are not normally distributed for all countries for whole sample as well as for all sub samples, as the null hypothesis of normal distribution is rejected in all cases.

Table 01: Descriptive Statistics of daily gold returns

Market	Mean	Max	Min	Std. Dev.	JarqueBera	No of Obs.
Full Period : 1993:01–2016:10						
China	0.001	0.408	-0.096	0.01	16198659***	6209
India	0.001	0.071	-0.094	0.01	10871.7***	6209
Russia	0.002	0.465	-0.364	0.03	5804470***	6209
Sub period 1: 1993:01–1999:12						
China	0.001	0.408	-0.054	0.01	2743566***	1825
India	0.001	0.059	-0.036	0.01	1963.838***	1825
Russia	0.002	0.465	-0.364	0.02	498324.3***	1825
Sub period 2: 2000:01–2005:12						
China	0.001	0.064	-0.054	0.01	2532.227***	1565
India	0.001	0.065	-0.053	0.01	2622.658***	1565
Russia	0.001	0.065	-0.053	0.01	2082.024***	1565
Sub period 3: 2006:01–2016:10						
China	0.001	0.067	-0.096	0.01	2583.76***	2825
India	0.001	0.071	-0.094	0.01	2479.221***	2825
Russia	0.002	0.137	-0.160	0.02	17518.16***	2825

*** indicate that the null hypothesis of normality is rejected for all countries and all sample periods studied at 1% significance level.

2.2. Methodology

This study focuses on runs test as well as parametric variance ratio tests proposed by Lo and MacKinlay (1988), and Lo and MacKinlay (1989); and modified non parametric variance ratio tests using ranks and signs proposed by Wright (2000) for testing the strict random walks (RWS) and relaxed martingales difference sequence (MDS) hypothesis of weak form market efficiency. Different variance ratio tests have been

proved as robust tests since they provide more accurate results for testing the random walk properties as compared to other tests such as serial correlation tests, autoregressive and ARIMA models (Liu and He, 1991; Lo and MacKinlay, 1989). Following the process of Mobarek and Fiorante (2014), this study provides only detail discussion of various variance ratio tests. Therefore, runs test is quite commonly discussed in the existing literature.

2.2.1. Variance Ratio Test

Existing literature provides number of variance ratio tests to test the strict random walks (RWS) and relaxed martingale difference sequence (MDS) hypothesis. RWS hypothesis assumes that increments are homoscedastic, whereas MDS assumes that increments are caused by heteroscedasticity.

Lo and MacKinlay (1988) proposed single variance ratio test which suggests that increments are supposed to be serially uncorrelated if prices follow a random walk and variance in increments should increase linearly in the interval of sampling.

$$p_t = p_{t-1} + \mu + \varepsilon_t, \quad \varepsilon_t \sim IID \quad N(0, \sigma^2) \quad (1)$$

The variance of $(p_t - p_{t-2})$ should be twice the variance of $(p_t - p_{t-1})$. In the same way the weekly time series should have five times more variance than the daily series (Karemera et al., 1999). Similarly if gold prices follow a random walk than the variance of $(p_t - p_{t-k})$ should be k times the variance of $(p_t - p_{t-1})$ i.e

$$\text{Var}(p_t - p_{t-k}) = k\text{Var}(p_t - p_{t-1}) \quad (2)$$

Therefore, Lo and MacKinlay (1988) proposed variance ratio as follows:

$$VR(k) = \frac{\left(\frac{1}{k}\right)(\text{Var}(p_t - p_{t-k}))}{\text{Var}(p_t - p_{t-1})} = \frac{\sigma^2(k)}{\sigma^2(1)} \quad (3)$$

Where the null hypothesis for single variance ratio test is:

$$H_0: VR(k) = 1 \quad (4)$$

Lo and MacKinlay (1988) also proposed two test statistics for the null hypothesis of random walk. First test statistic assumes homoscedastic increments, is used to test strict random walks (RWS) hypothesis and defined as follows:

$$z_1(k) = \frac{VR(k)-1}{\phi(k)} \sim N(0, 1) \quad (5)$$

$$\text{Where } \phi(k) = \sqrt{\frac{2(2k-1)(k-1)}{3kT}} \quad (6)$$

The second test statistics that prefers to follow the assumption of heteroscedastic increments and is used to test the relaxed martingale difference sequence (MDS) hypothesis in this study as follows:

$$z_2(k) = \frac{VR(k)-1}{\phi^*(k)} \sim N(0, 1) \quad (7)$$

Where $\phi^*(k) = \sqrt{\left[4 \sum_{t=1}^{k-1} \left(1 - \frac{t}{k}\right) \delta_t\right]}$ and

$$\delta_t = \frac{\sum_{i=t+1}^{Tq} (p_i - p_{i-1} - \hat{u})^2 ((p_{i-1} - p_{i-t-1} - \hat{u})^2)}{[\sum_{i=1}^{Tq} (p_i - p_{i-1} - \hat{u})^2]^2}$$

Luger (2003) suggested that non parametric tests provide robust results even the data are not normally distributed. Further, Wright (2000) modified parametric variance ratio test proposed by Lo and MacKinlay (1988) to a non-parametric variance ratio test. The main difference between the two tests is that Wright (2000) uses return ranks and signs instead of return differences used by Lo and MacKinlay (1988). Given T observations of asset returns i.e (y_1, \dots, y_T) Wright (2000) defined R1 and R2 variance ratios as follows:

$$R_1(k) = \left(\frac{(TK)^{-1} \sum_{t=k}^T (r_{1t} + \dots + r_{1t-k+1})^2}{T^{-1} \sum_{t=1}^T r_{1t}^2} - 1 \right) \left(\frac{2(2k-1)(k-1)}{3kt} \right)^{-1/2} \quad (8)$$

$$R_2(k) = \left(\frac{(TK)^{-1} \sum_{t=k}^T (r_{2t} + \dots + r_{2t-k+1})^2}{T^{-1} \sum_{t=1}^T r_{2t}^2} - 1 \right) \left(\frac{2(2k-1)(k-1)}{3kt} \right)^{-1/2} \quad (9)$$

Where

$$r_{1t} = \frac{r\left(y_t - \frac{T+1}{2}\right)}{\sqrt{\frac{(T-1)(T+1)}{12}}} \quad \text{and} \quad r_{2t} = \phi^{-1}\left(\frac{r(y_t)}{T+1}\right)$$

$r(y_t)$ denote rank of y_t among y_1, \dots, y_T and ϕ^{-1} is the inverse of standard normal cumulative distribution function.

On the other hand, Wright (2000) proposed non parametric test based on the signs of returns, instead of ranks and defined S_1 and S_2 by the following equations:

$$S_1 = \left(\frac{(TK)^{-1} \sum_{t=k}^T (s_t + \dots + s_{t-k+1})^2}{T^{-1} \sum_{t=1}^T s_t^2} - 1 \right) \times \left(\frac{2(2k-1)(k-1)}{3kt} \right)^{\frac{-1}{2}} \text{ and} \quad (10)$$

$$S_2 = \left(\frac{(TK)^{-1} \sum_{t=k}^T (s_t(\bar{\mu}) + \dots + s_{t-k+1}(\bar{\mu}))^2}{T^{-1} \sum_{t=1}^T s_t(\bar{\mu})^2} - 1 \right) \times \left(\frac{2(2k-1)(k-1)}{3kt} \right)^{\frac{-1}{2}} \quad (11)$$

Where $s_t = 2u(y_t, 0)$, $s_t(\bar{\mu}) = 2u(y_t, \bar{\mu})$, and

$$\mu(x_t, q) = \begin{cases} 0.5 & \text{if } x_t > q, \\ -0.5 & \text{otherwise} \end{cases}$$

By performing various simulations Wright (2000) proposed that under homoscedasticity conditions Rank tests such as R_1 and R_2 provide more robust results (RWS hypothesis), whereas signs tests such as S_1 and S_2 provide better results when there are heteroscedastic conditions. In This study, ranks tests are used to test the random walks (RWS) hypothesis, whereas signs tests to test the martingale difference sequence (MDS) hypothesis.

3. Results Analysis and Discussion

This section provides a discussion and analysis of runs test and various variance ratio tests to test the strict RWS and relaxed MDS hypothesis. Moreover, the results are further divided into three subgroups to test whether efficiency of gold markets in emerging countries such as in Russia, India and China has changed with the passage of time.

3.1. Runs Test

Table 2 provides results for runs test to test whether the successive price changes are invariant of time so they do not follow trend. In our case, runs test is used to test the RWS hypothesis for the whole period as well as for three sub periods. For whole the period, results indicate that gold market in Russia follows a random walk. In other words, Russian gold market is weak form efficient in terms of strict RWS. On other hand, two markets such as China and India are not weak form efficient as the null hypothesis is rejected for both the gold markets. Results for first sub period are consistent with whole period, since Russia is only found weak form efficient. Results for the second sub period are quite interesting since all markets are found weak form efficient, which indicates that emerging gold markets have evolved in terms of weak form efficiency as results reveal that all emerging countries show independent price changes. Results for third sub period are consistent with the results of first sub period and with whole sample. It indicates that Russia is found weak form efficient in terms of strict RWS, whereas China and India are found inefficient.

3.2. Variance Ratio Test

Variance ratio test results for gold returns of the emerging markets are given in Table 3. Column 1 provides the number of days intervals that is lag k, where k=2, 5, 10 and

Table 02: Runs Test

Market	Test Value	Cases < test Value	Cases >= test Value	Total Cases	Number of runs	Z-Statistics	P value
Full Period : 1993:01–2016:10							
China	0.00024	3261	2948	6209	3195	2.47	0.01*
India	0.00035	3146	3063	6209	3217	2.89	0.00*
Russia	0.00103	3120	3089	6209	3115	0.99	0.32
Sub period 1: 1993:01–1999:12							
China	0.00014	1006	813	1819	952	2.22	0.02*
India	0.00016	965	854	1819	952	2.05	0.04*
Russia	0.00022	898	921	1819	848	0.52	0.60
Sub period 2: 2000:01–2005:12							
China	0.00034	815	750	1565	785	0.16	0.87
India	0.00038	773	792	1565	787	0.18	0.85
Russia	0.00039	799	766	1565	803	1.05	0.29
Sub period 3: 2006:01–2016:10							
China	0.00026	1440	1385	2825	1462	1.85	0.06*
India	0.00046	1408	1417	2825	1486	2.74	0.00*
Russia	0.00059	1423	1402	2825	1416	0.17	0.86

Runs test is used to test the null hypothesis that is gold prices follow a random walks (RWS). *P value below 0.1 indicates that null hypothesis of weak form gold market efficiency is rejected at 10% significance level.

30 as proposed by Wright (2000). Column 2 and 3 show the results of the parametric test statistics proposed by Lo and MacKinlay (1988). M_1 is used under the assumption of homoscedasticity which in our case is used to test the random walks (RWS) hypothesis. On other hand, M_2 is used under the null hypothesis of heteroscedasticity which in our case is used to test the martingale difference sequence (MDS) hypothesis. The results in columns four through seven are based on non-parametric test statistics proposed by Wright (2000). In these columns, the ranks (R1 and R2) test the strict RWS hypothesis whereas signs (S1 and S2) test the relaxed MDS hypothesis.

3.3. Variance Ratio Test

Variance ratio test results for gold returns of the emerging markets are given in Table

3. Column 1 provides the number of days intervals that is lag k , where $k=2, 5, 10$ and 30 as proposed by Wright (2000). Column 2 and 3 show the results of the parametric test statistics proposed by Lo and MacKinlay (1988). M_1 is used under the assumption of homoscedasticity which in our case is used to test the random walks (RWS) hypothesis. On other hand, M_2 is used under the null hypothesis of heteroscedasticity which in our case is used to test the martingale difference sequence (MDS) hypothesis. The results in columns four through seven are based on non-parametric test statistics proposed by Wright (2000). In these columns, the ranks (R1 and R2) test the strict RWS hypothesis whereas signs (S1 and S2) test the relaxed MDS hypothesis.

The results in Table 3 are given for the subsamples and the whole sample in the gold markets of the China, Russia, and India. The test statistics i.e M1 and M2 indicate that both RWS and MDS hypothesis cannot be rejected in case of China except when lag interval is 30 for M1. On other hand, the null hypothesis is rejected for all other test statistics i.e R1, R2, S1 and S2. These differences may be due to the reason that LM test statistics (M1 and M2) do not provide robust results under the presence of heteroscedasticity. For India and Russia null hypothesis is rejected for most of the lag intervals when M1 test statistics is used. Alternatively, the null hypothesis cannot be rejected for both India and Russia in case of M2. Finally, test statistics R1, R2, S1 and S2 reject both RWS and MDS hypotheses.

Overall, results for whole sample indicate that all three emerging gold markets are weak form inefficient, as both strict RWS and relaxed MDS hypothesis are rejected. These results are different from those of runs test, in case of Russia only, since runs test indicates that Russia is an efficient market.

For first sub period covering from January, 1993 to December, 1999, M1 and M2 test statistics indicate that China is an efficient market. On the contrary, Wright (2000) test statistics (R1, R2, S1 and S2) reject the null hypothesis of weak form market efficiency in case of China. For India, the null hypotheses (both RWS and MDS) are rejected against all the given test statistics for most of the lag intervals. It further indicates that India is weak form inefficient during first sub period. For Russia only M1 suggests weak form inefficiency of Russian gold markets, whereas all other test statistics do not reject null hypotheses of RWS and MDS except M2 at lag 2. These results, therefore, conclude that Russia was weak form efficient during first sub period. Discrepancies in M1 results may be due to the presence of heteroscedasticity in the data.

For sub period 2 ranging from January, 2000 to December, 2005, the null hypotheses are accepted against all the given test statistics except R1. In R1, the null hypothesis is rejected for India and China at lag 2 only. These results are consistent with runs test for sub period 2.

For sub period 3 commencing from January, 2006 to October, 2016, the test statistics i.e R1, R2, S1, and S2 suggest that Russia is weak form efficient. On other hand, China and India are not weak form efficient. However, test statistics proposed by Lo and MacKinlay (1988) give inconsistent results. Contrary to robust test statistics proposed by Wright (2000), M1 test statistics indicate that China is weak form efficient, whereas Russia is inefficient.

Overall findings for period 2, except M1 and M2 test statistics results, suggest that for all three emerging markets, null hypotheses of weak form efficiency (both strict RWS and relaxed MDS) cannot be rejected for all test statistics including runs test; whereas for sub period one and sub period three, null hypothesis is rejected for China and India but not for Russia. These results therefore conclude that Russian gold market is found weak form efficient during all individual periods, whereas China and India became efficient during second sub period only. Moreover, results of two types of hypotheses are consistent with each other, that is, both types of hypotheses are accepted for Russia

Table 03: Variance ratio test results for China, India, and Russia

Period	M1	M2	R1	R2	S1	S2
Full Period : 1993:01–2016:10						
China						
2	-0.92	-0.52	-2.46***	-2.02**	-1.97**	-3.45***
5	-1.61	-0.90	-1.83*	-2.02**	-1.87*	-3.06***
10	-1.27	-0.72	-0.37	-1.56	-2.71***	-2.16**
30	-1.67*	-0.98	-1.83*	-1.67*	-1.69*	-1.53
India						
2	-1.69*	-0.78	-1.77*	-2.87***	-1.95*	-3.85***
5	-2.84***	-1.47	-1.99**	-2.67***	-1.66*	-3.19***
10	-1.14	-0.82	-1.99**	-1.51	-1.73**	-1.91*
30	-1.57	-0.56	-1.70*	-1.41	-0.93	-1.25
Russia						
2	-1.80*	-0.24	-1.67*	-1.74*	-1.72*	-1.38
5	-2.86***	-0.45	-1.71*	-1.96**	-1.98**	-2.01**
10	-3.17***	-0.60	-1.69*	-0.27	-1.92*	-1.92**
30	-0.11	-0.02	-0.08	0.61	-0.01	-1.68*
Sub period 1: 1993:01–1999:12						
China						
2	-1.47	-0.68	-1.87*	-0.41	-2.49**	-2.53***
5	-0.87	-0.48	-1.76*	-1.86*	-1.70*	-2.52***
10	0.09	0.06	2.35***	-2.11**	2.25**	-2.07*
30	-0.18	-0.15	-2.04**	-2.02**	-2.03**	-1.36
India						
2	-1.07	0.53	0.38	-1.92*	-2.19**	-2.15**
5	1.98**	1.97**	1.29	-1.99**	-1.73*	-1.68*
10	2.88***	2.64***	2.18**	-2.56***	2.31**	-1.98**
30	0.79	1.73*	0.51	-0.89	0.36	-1.04
Russia						

Period	M1	M2	R1	R2	S1	S2
2	8.92***	1.74*	1.49	-0.58	0.72	-0.77
5	2.62***	0.46	0.98	-0.24	0.18	-1.23
10	-3.95***	-0.65	-1.49	-0.14	-0.44	-0.98
30	-2.46**	-0.45	-0.71	0.18	-0.14	-0.86

Sub period 2: 2000:01–2005:12

China						
2	-1.00	-0.61	-1.96**	-0.69	-1.04	-0.98
5	-0.24	-0.16	-0.48	-0.13	-0.29	-0.35
10	-0.55	-0.40	-0.89	-0.54	-0.61	-0.50
30	-1.27	-1.04	-1.50	-0.95	-1.24	-0.61
India						
2	-0.79	-0.47	-1.90*	-0.74	-1.01	-0.88
5	0.33	0.22	-0.24	-0.15	-0.15	-0.37
10	0.01	0.00	-0.51	-0.37	-0.35	0.08
30	-0.86	-0.68	-1.22	-0.83	-1.00	-0.07
Russia						
2	-0.97	-0.61	-1.62	-0.53	-0.89	-0.99
5	0.11	0.07	-0.09	-0.03	-0.05	-0.58
10	-0.17	-0.12	-0.53	-0.41	-0.36	-0.98
30	-0.89	-0.73	-1.08	-1.00	-0.89	-1.56

Sub period 3: 2006:01–2016:10

China						
2	-0.48	-0.36	-1.69*	-1.77*	-2.37**	-2.35**
5	-1.11	-0.83	-1.73*	-1.74*	-2.43***	-2.26**
10	-0.92	-0.69	-0.45	-1.00	-0.36	-1.16
30	-1.16	-0.89	-1.16	-1.09	-1.92*	-0.73
India						
2	-1.17	-0.78	-1.74*	-2.54**	-1.97**	-3.33***
5	-2.02**	-1.41	-1.97**	-2.75***	-1.96**	-3.15***
10	-0.85	-0.61	-2.73**	-1.48	-2.55***	-2.12**
30	-1.12	-0.82	-1.12	-1.02	-1.85*	-0.97
Russia						
2	-1.37	-0.26	0.31	0.20	0.12	-0.69
5	-2.03**	-0.46	-0.35	-0.68	-0.16	-1.56
10	-2.15**	-0.59	-0.56	-0.04	-0.28	-1.34
30	0.04	0.02	0.88	1.21	0.51	-0.65

*, ** and *** indicate that null hypotheses are rejected at 10%, 5% and 1% level respectively. M1 and M2 test results are based on test statistics proposed by Lo and MacKinlay (1988) where M1 tests the strict random walks (RWS) hypothesis whereas M2 tests the relaxed martingale

difference sequence (MDS) hypothesis. R1, R2, S1 and S2 tests are based on recent non parametric variance ratio tests proposed by Wright (2000) where R1 and R2 (ranks) test the strict random walks (RWS) hypothesis whereas S1 and S2 (signs) test the relaxed martingale difference sequence (MDS) hypothesis. M1, R1, and R2 test statistics are more robust when there are homoscedastic conditions whereas M2, S1, and S2 provide better results when there are heteroscedastic conditions.

during all individual periods whereas both are accepted for India and China during second sub period only. Results of test statistics proposed by Lo and MacKinlay (1988) (M1 and M2) are, however, not consistent with the findings of Wright (2000) and runs tests.

4. Conclusion

The objective of this study is twofold. First, to determine whether the emerging gold markets such as China, India and Russia are weak form efficient with the special focus on testing strict random walks (RWS) and relaxed martingale difference sequence (MDS) hypotheses. Moreover, whether the efficiency of these markets has evolved with the passage of time.

This study focuses on a number of biased-free statistical techniques such as runs test, Lo and MacKinlay (1988) parametric variance ratios tests (M1 and M2) and Wright (2000) modified non parametric variance ratio tests (R1, R2, S1, and S2) for testing two types of hypotheses. Moreover, this study further divides data into three sub periods for serving the second purpose of this study.

Findings based on runs test, and modified non parametric tests suggest that gold market in Russia is efficient throughout the sample period, whereas for India and China the findings are different for different periods. Both types of null hypotheses are rejected for India and China for period one (from January 1993 to December 1999) and period three (January 2006 to October 2016) but accepted for period two (January 2000 to December 2005), which employs that these two markets improved their efficiency during second period but that again deteriorated in the last period.

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Trade Liberalization-Trade Revenue Nexus: An Empirical Enquiry of Trade Laffer Curve of Pakistan

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Abstract

This study tries to explore the trade revenue implication of trade liberalization for Pakistan. Laffer curve approach is used to see the non-linear relationship between trade openness and trade tax revenue. Empirical evidence shows that trade openness has constructive impact on trade tax revenue in linear term. The non-linear relationship has also been explored in the presence of other macroeconomic variables. The marginal impact of non-linear square trade liberalization has adverse effect on trade tax revenue. In the long run, the empirical investigation proves the existence of inverted U-shaped behavior between trade liberalization and trade tax revenue in Pakistan but this behavior does not exist in short run.

Keywords: Trade Liberalization, Trade Revenue, Co-integration.

JEL Classification: F10, F13, C13.

1. Introduction

Twenty-first century came with the phenomenon of globalization or economic integration. In such environment, all industrial and developing economies opened their borders for trade in goods and services. It has also been accepted that trade liberalization improves economic efficiency and spurs economic growth through spillover effects (Krueger, 1997) and (Edwards, 1992). While in the case of developing economies, trade liberalization has inconclusive results (Rodríguez & Rodrik, 2001). Most of the developing economies protect their imperfect sector from the global competition by a variety of tariff and nontariff restrictions. The main reason of protection is strengthening the domestic infant industries and acquiring the revenue through trade barriers.

Trade Openness may create fiscal uncertainty in case of developing economies because of major share of trade tax in total tax collection. During liberalization, it is fundamental for developing countries to draw trade policy properly for generation of trade revenue. Stotsky, Ebrill, and Gropp (1999) concludes that any loss of trade revenue may create the importance of the fiscal implication of trade liberalization. International Monetary Fund (IMF) described that the share of trade revenue has been increased in most of the developing countries after the implementation of Structural Adjustment Program

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(SAP). For example in African countries, the share of trade revenue is 30.5 percent of total revenue. However, if we look at the Organization for Economic Cooperation and Development (OECD) countries, the share of trade revenue was only 0.8 percent in total revenue. M. Keen and Ligthart (2005) argued that developed countries have so many other heads of revenue collection to overcome the trade revenue loss. The low income countries have no more capacity to improve their fiscal condition during liberalization. Therefore, developing economies are more in need of trade revenue to meet their fiscal needs (Stotsky et al., 1999). Further, cut in tariff rate will cause to reduce trade revenue (Khattry & Rao, 2002).

Trade liberalization has dual effect on trade revenue for different economies, regions and different data sets. Trade liberalization has negative impact on trade revenue due to reduction in tariff rate. In some cases, trade liberalization has positive impact on trade revenue due to increase in the volume of imports and vice versa. This effect is demonstrated by a “Trade Laffer Curve” that explains the relationship between tariff rates and trade revenue. When tariff rate is high, it reduces the trade tax revenue due to reduction in imports volume. On the contrary, the lower tariff rate may also reduce the tax revenue from trade openness. When any country has already relatively liberalized, additional discounts in tariff rate will not be the source of any addition in trade revenue.

According to Tanzi (1989) tax revenue as a share of GDP remains low in most of the developing countries. The contribution of regressive taxes is low as compared to progressive taxes due to three reasons: (i) Complete absence of agricultural income tax, (ii) High exemption limits as compared to levels of per capita income and (iii) Widespread tax evasion. In Pakistan, high share of total tax collection is produced through regressive taxes. Import duties produce more than 40 percent of total government revenue. A decline in tariff rate is likely to diminish the proportion of total public revenue. This may increase the burden on government in the form of budget deficit. However, to some extent, the government can overcome the gap through tax reforms i.e. value added tax. For example, reduction in import duty must be accompanied with the restriction and proper monitoring of Afghan Transit Trade. More imports and exports should come in trade volume through the legal channel. This generates high trade revenue for the government. Furthermore, government can enhance the revenue share by introducing value added tax (VAT), broad based sales tax and agriculture income tax.

After SAP reforms, tax revenue as a proportion of GDP in Pakistan started deteriorating. Within the kind of indirect taxes, import duties are used to provide the largest share in revenue for the government. Pakistan has already made significant adjustments in its tax system after structural reforms like broad based sale tax (value added tax). Now government has less reliance on import duties to fill the fiscal needs. Imports duties only accounted for 8 percent of total government revenue in 2002, as compared with 29

percent in 1992 (Zaidi, 2005). Pakistan's trade patterns and trade policy have continuously been moving towards fewer and fewer control, lower tariffs, and more openness. Non-tariff barriers have been replaced by tariff, and tariff rates have come tumbling down. After the SAP, country moves towards fast liberalization with exports-led growth strategy but unfortunately supply sides inactive for exports (such as prices, inputs, tax incentives) do not be helpful in promotion of exports. In the current condition revenue collection has been changed. One of the most significant changes in Pakistan's economy is the result of lowering tariffs and overall reduction in trade revenue.

Pakistan's fiscal performance is characterized with a number of macroeconomic variables. On the revenue side, the tax-to-GDP ratio shows a declining trend over the last forty years. Overall fiscal effort of the economy has not been satisfactory. Tax-to-GDP ratio remained more or less stagnant at 15 to 16 percent during the last four decades. Pakistan mostly generates its revenue through trade tax which may cause fiscal instability because it has been considerably liberalizing its borders during the last twenty years. The emphasis of present study is to investigate the fiscal implication of trade liberalization in Pakistan. Furthermore, this study uses Laffer curve approach to provide the desirable result of trade tax revenue and trade liberalization. Trade liberalization has negative impact on trade revenue due to reduction in tariff rate. In some cases, trade liberalization has positive impact on trade revenue due to increase in the volume of imports and vice versa. This effect is demonstrated by a "Trade Laffer Curve" that explains the relationship between tariff rates and trade revenue.

2. Literature Review

Economics literature presents a variety of views regarding economic, political, social and fiscal implication of trade liberalization. On one hand, it is viewed as an important engine of economic growth and on the other hand, it may have negative consequences for developing countries. J. Bhagwati (2004), for example, sees globalization as the cause of community problems, such as poverty, macroeconomic imbalances and environmental loss at worldwide. Bevan (1995) analyses the influence of trade openness on macroeconomic variables for the developed and developing countries. He concluded that there exist inverse relationships between liberalization and more economic instability. In this context, J. N. Bhagwati (2004) and Bacha (1990) analyzed the association between trade openness and macroeconomic fluctuation and established that tradeoff behavior between trade openness and macroeconomic volatility is reason of fiscal instability. Yap (1997) uses three gaps model (saving, fiscal and foreign exchange gaps) to see the impact of tariff reduction on macroeconomics activity in case of Philippines. He explored that trade liberalization is cause to fill the fiscal and trade deficit gaps.

(Negishi (1972)) developed a theoretical model for industrial protection. In the light of different types of assumptions, a newly born industry cannot compete with foreign

market because of its high cost of production. However, if it gains a long term technological progress through learning process it may be able to reduce its average cost. He argued that downward shift of cost curve may create comparative advantage for newly born industry and produce more profit in future from free trade. While, in the case of developed and developing countries used commercial policy to protect their home market from the foreign competition. For example, China and Korea used highly protectionist policy against free trade in 1970s. These trade restrictions seem to protect the domestic market from the foreign competition and may generate revenue to overcome the trade externalities (Krugman, 1986). Trade taxes may increase the domestic revenue, if country increases the rate of trade taxes or volume of trade. Most of the developing economies depend on the trade tax revenue to meet their fiscal needs.

According to Melvin (1970), the public sector with imperfect administrative capacity, high corruption and a narrow tax base, tends to accumulate more share of revenue from those areas which are easy to tax or less collection cost. For example, imports duties have a lowest quantity of tax evasion. While, in the case of those countries which have high budget constraint bears high distortionary per unit cost to trade tax collection. Further cuts in trade tax may be serious loss for revenue collection (Anderson, 1998). This arises the question whether there is existence of any relationships between tariff liberalization and fiscal condition. It may be, when tariff liberalization is correctly administered, overcome the corruption and tax evasion but in itself has no causality between trade openness and trade tax. In general, most countries shifted towards a replica whereby a government's need on non-trade tax as the most important basis of revenue as compared to trade tax. The most common examples include, income, corporate, excise, value added tax (VAT), social-security, property and resource taxes (Melvin, 1975).

Trade openness and trade revenue has no clear association with domestic tax collection. The previous studies suggest different factors such as share of trade tax revenue, composition and tax structure of the economy and administration abilities have significant consequence on tax revenue (Stotsky et al., 1999) and (M. Keen & Ligthart, 2002). Furthermore, for the Sub-Saharan African countries Adam, Bevan, and Chambas (2001) analyse the link between exchange rate and domestic taxes. They found inverse association between exchange rate and revenue of taxes. Pupongsak (2010) investigated the association between trade liberalization and tax for Thai economy. The result of this research is that free trade inversely related with the tax revenue. Due to trade liberalization put a pressure on Thai fiscal policy. The trade liberalization provides maximum advantages to those economies that are more efficient in their fiscal conditions. While in some cases fiscal adjustment is much difficult to further cut in tariff rate. most of the developing countries are not well aware of opportunities linked with open market.

Tanzi (1989) explores so many factors they are affecting free trade tax revenue for developed and developing nations. Important factors are prices, fiscal imbalances, rates of exchange and local taxes revenue. The results describe that the rate of exchange, CPI, and fiscal policy are inversely related with trade taxes. Agbeyegbe, Stotsky, and WoldeMariam (2006) analyzed that trade revenue is determined by the elasticity of price for the import demand condition and the elasticity of price for the supply of substitution for imported goods. If the imports demand behavior of a country is price elastic, the revenue gains through free trade. Aliyu (2007) empirically verified the factors of import and export demand behaviors for Nigerian economy. He establishes that income has slightly affected the imports and exports while previous income level highly affected export demand. In case of Pakistan the imports are less elastic with prices and more elastic with income. It implies that increase in tariff rate will result increase in trade revenue through trade liberalization.

Most of the developing economies heavily depend on the trade tax revenue to meet their budget deficit. These economies use the trade liberalization policy due to lack of resources to meet the domestic expenditures (M. Keen & Ligthart, 2002). If developing economies reduce the level of trade restriction, this may cause increase in total imports of those countries and also reduce the tax revenue from the importing countries. It may increase the budget deficit of the government and government has to increase other sources of internal taxes to compensate budget deficit.

Kowalski (2005) examines relationship between trade openness and revenue for 12 nations and establishes that in most cases the likely-trade revenue drops are relatively less in the development of liberalization. The trade liberalization provides maximum advantages to those economies that are more efficient in their fiscal scenario. While in some cases fiscal adjustment is much difficult to further cut in tariff rate because most of the developing countries are aware of opportunities linked with open market. While, some researcher have also pointed out the potential tariff or trade revenue loss as a main difficulty to reducing their tariffs levels, without a favorable changes in the tax structure (Stotsky et al., 1999).

Rajaram (1992) explains that Pakistani government is not well aware of tariff structure by WTO and inadequate consideration was paid to the revenue and liberalization of trade effects. This shows that reforms of tariff should be restored for reducing the loss of tariff revenue. So before making any tariff reforms the government of Pakistan should strictly concern the revenue by the tariff and the trade liberalization process of WTO. Adam et al. (2001) empirically investigated that the high share of trade revenue may cause to further reduction in domestic regressive taxes. This proposes that liberalization of trade and revenue of taxes are responsive to measurement issues. Similarly, Agbeyegbe et al. (2006) did not find robust association between trade liberalization and trade revenue. M. Keen and Ligthart (2002) suggests that policy of

increasing domestic consumption taxes at least equal with tariff cuts has equal compensation gained domestic consumers due to trade openness. Trade openness increases the real income of the consumer through the reduction in world prices of goods and services. Furthermore, trade openness increases the efficiency of production, improves the tariff reforms and increase revenue of trade for the government. Aizenman and Jinjark (2009) also look to be hold by the work of (M. M. Keen & Baunsgaard, 2005). Trade liberalization is a process of removable of tariff rate cause to trade revenue loss behavior is unclear because the trade revenue is not only dependent on level of openness intensity of trade as well as domestic revenue structure, plus the tax system efficiency and tax collection administrative cost and capacity (M. Keen & Ligthart, 2002; Stotsky et al., 1999).

Hisali (2012) investigated the trade revenue behavior for Uganda using time series data. The results support that exchange rate negative impact on custom revenue. Higher import price may cause to reduce trade volume as well as trade revenue in the long run. Spearot (2013) investigated the relationship between trade revenue and imports demand, imports prices and imports demand elasticity. The empirical results show that less elastic imports produced more trade revenue as compared to more elastic demand for imports during trade liberalization. Epaphra (2014) empirically examined how trade liberalization influenced the import duty revenue and domestic tax conditions in Tanzania? The empirical results showed that trade revenue as a share to GDP is positively linked with tariff rates. This implied that trade liberalization produced considerable loss of import duty revenue in Tanzania. Foreign exchange market also influenced the trade tax revenue. Depreciation of floating exchange rate had negative impact on trade tax revenue.

In the global context, ambiguity exists on the association between trade openness and trade tax revenue. According to theory, trade liberalization in the form of lower tariff rates cause to revenue loss. Trade liberalization may cause to improve the import volume, and hence the tax base as well as trade revenue, although to measure the effect of tariff removal on trade revenue is ambiguous. When we investigate the literature on the association of trade liberalization and trade taxes, no significant work has been done yet in this area. Even though, previous work investigated the determinants of trade revenue. While, some are based on the consequences of trade revenue for developed world. This issue gained more importance for developing world because these countries rapidly move towards trade liberalization without considering their fiscal conditions. When we review the literature on trade liberalization and trade revenue, we find hardly any study in detail for case of Pakistan. Some studies reflect macroeconomic determinant, component and composition of trade revenue and other reflect economic consequences independently. Pakistan is a good case study because it has more concentration towards liberalization without considering its revenue implications during the last twenty years.

3. Theoretical Background

According to the theories of free trade, society's welfare level may be improved through perfect market conditions via different channels. However, liberalization may cause the social welfare loss due to decline in trade revenue. This revenue loss may bring fiscal deficit or the excessive burden of indirect taxes. Under these circumstances, free trade has two-fold effects on developing world. First, it may improve the economic well-being through spillover effects. Second, it may cause fiscal uncertainty due to trade revenue loss during liberalization. A large number of studies investigate its economic, socio-political and fiscal implications. Mill (1848) argued that commercial policy or free trade restrictions are necessary for promoting infant industries for competition. This suggests that poor countries should adopt the commercial policy to protect their resources from the foreign competition. Commercial policy is based on the following instruments: (i) tariff on import or tax (ii) quota system (iii) exchange control (iv) export subsidies and (v) voluntary export restraints. These trade restrictions seem to protect the domestic market from the foreign competition and may generate revenue. Trade taxes increase the revenue in both ways if country increases the level of trade taxes or volume of trade in term of units.

Trade liberalization has dual effect on trade revenue for different economies, regions and different data sets. Trade liberalization has negative impact on trade revenue due to reduction in tariff rate. In some cases, trade liberalization has positive impact on trade revenue due to increase in the volume of imports and vice versa. This effect is demonstrated by Ahmad and Chaudhary (2016) trade laffer curve that explains the relationship between tariff rates and trade revenue. When tariff rate is high, it reduces the trade tax revenue due to reduction in imports volume. On contrary, the lower tariff rate may also reduce the tax revenue from trade openness. When any country has already relatively liberalized, additional discounts in tariff rate will not be the source of any addition in trade revenue.

The graphical and functional presentation of tariff effect on partial equilibrium for a small country case has been presented by Feenstra (2015) and Salvatore (2013) as below

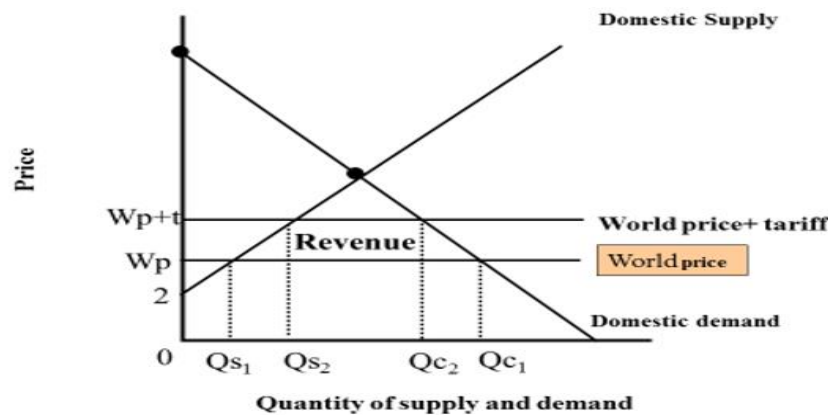


Figure 3.1: Partial Equilibrium Condition for Small country Case.

Before the imposition of tariff the quantities and price level are represented as follows:

- Q_{s1} = Quantity of exports
- Q_{c1} = Quantity of imports.
- WP= the world price level
- Q= imports level ($Q_{c1}-Q_{s1}$)

After imposition of tariff, the price level and quantities are expressed as:

- w_{p+t} = Domestic price level
- Q_{s2} = Quantity of exports
- Q_{c2} = Quantity of imports.
- Q_m = imports level ($Q_{c2}-Q_{s2}$)

When a country has less elastic import demand, increase in tariff rate causes to increase the trade revenue. Kenen (1985) presents a static model, which puts together the elasticity and absorption approaches to measure the Marshal Lerner (ML) condition. The ML condition implies that the countries having sum of price elasticities of import and export greater than one will have the more tax revenue from trade. But the price elasticity of import demand is not the sole determinant of trade revenue. There are several other determinants of trade revenue that are discussed in the literature of internal economics. For example, M. Keen and Lighthart (2002) pointed out various variables like exchange rate, inflation, term of trade and political instability that affect trade revenue. This behavior has been shown in the following figure 3.2.

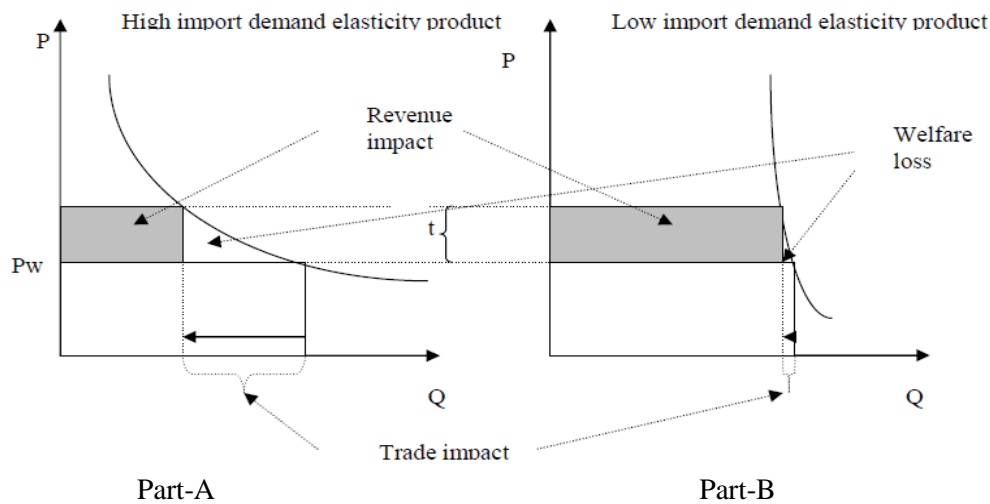


Figure 3.2: Price Elasticity of Imports and Trade Tax Revenue.

Where,

- P= Price level
- Q= Quantity of imports
- Pw= World prices
- t= Level of tariff

Figure 3.2 explains the trade revenue and welfare effects of trade liberalization for more and less imports demand behavior. Imposition of tariff in Part A, with more price elasticity of import demand yields less trade revenue with more welfare loss. While, on the other side of less imports demand produces more trade revenue with less welfare loss. Reduction in the tariff level produce reverse result discussed as above.

In economic theory, there are variety of views and strategies exist regarding tariff liberalization and tariff revenues. Haque and Mukherjee (2005) recommended that profit tax is more appropriate against tariff revenue loss as an alternative of commodity taxes especially in market economy. In monopoly condition, Mujumdar (2004) suggested that profit tax is a better options for government to make tariff revenue loss neutral against trade liberalization. On the other hand, Emran (2005) suggested that choosy import items tariff is used to generate revenues from tariff liberalization. The strategy is more beneficial for revenue generation as well as protect the production of these items. This strategy is more appropriate for developed nations because they have large trade volume of trade under the assumption of constant producer prices. Later on Naito (2006) studied the changing aspects of tariff liberalization and tax transformations under revenue a neutral stance. He concluded that tariff revenue is not recoverable in developing economies because these economies have larger share of imports in capital

goods rather than consumer goods. So, these strategies are not applicable for making tariff revenue loss against tariff liberalization for developing world.

Tax system and tax rate play a very important role to maximize the welfare in a free as well as in mixed economic system. In the capitalist economic system private sector is more important to create the economic efficiency. In Keynesian economic system

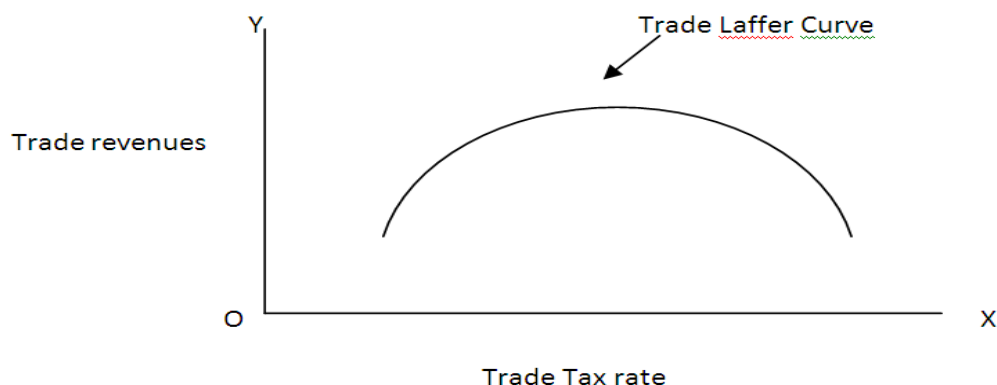


Figure 3.3: Trade Tax and Trade Revenue.

public sector is more important to stimulate economic and social efficiency. In free market economic system high tax rate leads to discourage social efficiency. This is an old issue in economic theory, what is the optimal tax rate in economies (Laffer, 1981). In the fundamental level of tax rate causes to increase the tax revenue and after a certain level, tax rate causes to reduce the tax revenue.

The theoretical background and empirical evidence between tax rate and tax revenue was developed by Laffer (1981). This relationship suggests that at the initial stages an increase in tariff rate is linked with an increase in trade revenue but after a certain level of tariff rate (optimal) further increase in tariff rate may decrease trade revenue. This relationship between tariff rate and trade revenue is termed as Trade Laffer Curve.

4. Econometric Methodology and Data Sources

This study employ the autoregressive distributed lag (ARDL) bounds testing method proposed by Pesaran, Shin, and Smith (2001) and after that (Narayan, 2005). The Co-integration analysis (short run and long run equilibrium) has used among trade revenue and trade liberalization plus other supporting explanatory variables. Luckily, ARDL method is more preferable approach as compared to previous. First, this method is more favorable for small sample time period. Second, this approach is more applicable for mix order of integration. Finally, this approach is more suitable for a long run to short run coefficient with simple linear transformation of variables as suggested by (Banerjee, Dolado, & Mestre, 1998).

According to previous discussion, previous works review and certain assumptions, we employed the linear and non-linear model as below. The non-linear (inverted U shape) behavior investigates between trade revenue and tariff rate for country specific for Pakistan. Further, see the trade Laffer curve existences in the case of Pakistan with the help of trade tax and trade revenue as mentioned by (Laffer, 1981). For empirical testing, we utilized the following model only for trade revenue affect rather than welfare consequence of trade liberalization.

$$TR = f(GDPC, ATR, EXC, CPI, TOT) \quad 4.1$$

Now, we take natural log on both side for judgment of empirical effect of trade liberalization and trade revenue. We write the estimated equation as follows;

$$LTR = \beta_0 + \beta_1 LATR + \beta_2 LATR^2 + \beta_3 LGDPC + \beta_4 LEXC + \beta_5 LCPI + \beta_6 LTOT + \mu \quad 4.2$$

Where, TR = Trade tax revenue collect from custom duties on trade goods and services are used as a proxy for trade revenue. EXC= real effective exchange rate is used by Hisali (2012) and Epaphra (2014) to investigate the impact of trade liberalization on trade revenue. GDPC= Gross Domestic per capita use as level of development as well as consumer demand. GDP per capita is used by Khattry and Rao (2002) as a determinant of trade revenue. CPI= Measure for domestic price behavior, High prices are assumed to be inversely related with trade tax revenue and vice versa (Hisali, 2012). ATR= Average tariff rate measured as weighted mean of all product percentage is used as a proxy of trade liberalization policy (M. Keen and Ligthart (2002); Stotsky et al., 1999) ATR² = squared term of average tariff rate is used to capture the non-linear effect of trade liberalization on trade revenue. The data on average tariff rate is taken from Pakistan Customs Tariff annual report various issues (Custom Wing) Federal Board of Revenue, Government of Pakistan. TOT= Terms of trade. The time period is employed 1975 to 2014 for empirical investigation. The major data sources are Handbook of Statistic on Pakistan Economy published by State Bank of Pakistan (2010), Pakistan Economic Survey 2014-15 published by Ministry of Finance, Government of Pakistan and World Development Indicator (WDI) by World Bank (2014).

5. Empirical Results

The first step was to investigate the stationarity level of all concerned variables examined through Ng-Perron (2001) among others because this test produced more reliable results for less time span series. Most of the macroeconomics variables have unit root problems. Without identifying the level of stationarity the empirical results are meaningless. Estimated outcomes of unit root tests are reported in Table-5.1 below. The empirical testing shows that variables have different levels of stationarity level. Such as trade openness (LOPE_t) and GDP per capita (LGDP C_t) are stationary at level or order I(0). Trade revenue (LTR_t), Average tariff rate (LATR_t), Exchange rate

(LEXC_t), Term of trade (LTOT_t) and Domestic prices (LCPI_t) are integrated of order one or I(1).

Table 5.1: Unit Root Results

<i>1.1 Ng-Perron at Level</i>				
Variables	MZa	MZt	MSB	MPT
LTR _t	1.5372	0.8333	0.5420	80.3637
LATR _t	-7.4289	-1.9100	0.2571	12.2984
LEXC _t	-2.3016	-0.9651	0.4193	34.7309
LGDPCT	-17.217**	-2.9046	0.1687	5.46783
LTOT _t	-4.4959	-1.4110	0.3138	19.5619
LCPI _t	-3.7069	-1.2178	0.3285	22.484
<i>Ng-Perron at 1st Difference</i>				
Variables	MZa	MZt	MSB	MPT
LTR _t	-28.0246*	-3.7257	0.1329	3.3528
LATR _t	-20.8502**	-3.1967	0.1533	4.5618
LEXC _t	-14.4175***	-2.6471	0.1836	6.5371
LGDPCT	-15.4103***	-2.7540	0.1787	6.0405
LTOT _t	-22.6434*	-3.3578	0.1482	4.0657
LCPI _t	-15.0214**	-2.7212	0.18116	6.17896

*, **, *** shows the 1%, 5%, 10% level of significant

The estimated result of the test indicates that the variables have mixed order of stationarity or integration. When variables have different order of integration it does not permit us to apply the traditional approaches to co-integration. These results justify our method to apply ARDL approach of co-integration. Schwarz information is used to optimal lag selection the results are present in Table-5.2.

Table 5.2: Lag Selection Criteria

Lags	Sequential modified	Final prediction	Akaike information	Schwarz information	Hannan-Quinn
0	-40.836	NA	6.897	2.8386	3.110
1	167.58	328.42*	2.071*	-7.610*	-5.706*
2	202.25	42.032	2.831	-7.5307	-3.993

* indicates optimal lag order selected by the criterion

Sensitivity Analysis

LM Test = 1.5188 (0.2584)

ARCH Test = 0.3683 (0.516)

Heteroscedasticity Test = 1.3250 (0.3021)

Ramsey Test = 0.2849 (0.6242)

Normality J-B Value = 0.0890 (0.9426)

The results of table 5.3 display the bounds testing approach to co-integration estimation confirm that the calculated F-statistics is 6.977 and it is higher than the upper critical bound as suggested by Pesaran et al. (2001) and Narayan (2005) at 5% level of significance. It is established that there is a long run cointegration exists among the variables because significant F-statistics. The next step is to investigate the long run elasticity of coefficients.

The next step is to find out the long run estimates for variables. The empirical results are reported in Table 5.4. The estimated coefficient tells us that tariff rate is positively associated with trade revenue. A 0.030 percent trade revenue is improved by 1 percent increase in average tariff rate. The link is statistically significant at 1 percent. Our estimated coefficient elasticity seems to support (Stotsky et al., 1999) and (Khattry & Rao, 2002). It means that trade liberalization produces adverse impact on trade tax revenue. In the light of results country improves the tariff rate to collect trade revenue because trade tax revenue has less cost of tax collection as well as low welfare loss. The elasticity of import, income, substitution and exchange rate, the results show that our imports are less price elastic and more income elastic. It means that tariff has adverse impact on trade tax revenue. The results support that Pakistan relies heavily on trade revenue taxation for government revenue. GDP per capita affects trade revenue positively. Elasticity coefficient shows that a .049 percent increase in trade revenue is caused by 1 percent increase in GDP per capita. The empirical result supports the argument developed by (Tanzi, 1989). Higher GDP per capita growth has positive impact on consumer demand for goods and services. Higher consumer demand may improve the share of imports demand in the country.

Per capita has highly significant positive effect on trade tax revenue in Pakistan. The association between trade tax and GDP per capita is positive. The estimates predicated that a 1 percent positive change in per capita GDP as s results of .0495 percent increase in trade tax revenue. Per capita or growth of per capita capture the effects of consumer demand. As the consumer demand increases, it may leads to increase the volume of imports especially in developing countries. So, the per capita has positive impact on imports demand as well as trade revenue. As we established the relationship between exchange rate and trade tax revenue. The elasticity of coefficient indicate that trade tax

revenue in Pakistan is adversely related. A 1 percent change accord in exchange rate cause to 0.323 percent reduction in trade tax revenue and this association is statistically significant. These results supports the economic theory because when local currency depreciate against foreign currency this may lead to hurt the domestic consumer imports demand in the long run. The depreciation of official has so many economic implications but trade revenue has also one of them. In case of Pakistan the rapid depreciation has been observed during last two decades due to improper monetary arrangement. Consumer prices index has positive impact on trade revenue. The elasticity coefficient shows that a one percent increase in domestic prices will bring 0.08 percent increase in trade revenue. When the domestic prices increase, the import demand will increase which affects the trade revenue positively.

Table 5.3: ARDL Bounds Testing Approach

Dependent Variable			F-Statistics	
LTR _t			6.9771	
Pesaran et al (2001) ^a			Narayan (2005) ^b	
Critical Value	Lower Bound Value	Upper Bound Value	Lower Bound Value	Upper Bound Value
1 %	5.15	6.36	6.140	7.607
5 %	3.79	4.85	4.183	5.333
10 %	3.17	4.14	3.393	4.410

a, The estimated model based on unrestricted intercept and no time trend obtained from Pesaran et al (2001), ^b Critical bounds obtained from Narayan (2005) on the bases of unrestricted intercept and no trend.

The empirical results of inverted-U-shaped behavior of trade laffer curve behaviour observed in the second model. The calculated results tell us that average tariff rate is positively linked with trade revenue in linear term in the long run. The estimated coefficient shows that 0.08 percent trade revenue is improved by 1 percent change in average tariff rate. The estimated coefficient is statistically significant at 1 percent level significant. While, non-linear term of average tariff rate is inversely related with trade revenue significantly. The estimated coefficient shows that a 1 percent change accord in square term of tariff rate causes -0.01 percent reduce trade revenue in Pakistan. When close economy is liberalized the trade or reducing the tariff rate is cause to surges revenue from trade openness. More liberalized economy is lowering tariff rate on trade causes to reduce revenue from trade. Overall our results seem to support (Stotsky et al., 1999) and (Khattry & Rao, 2002).

Table 5.4: Long Run Results

Dependent Variable = LTR _t				
Variables	Coefficient	Prob. Value	Coefficient	Prob. Value
Constant	-0.8949	0.0000	-0.8201	0.0067
LATR _t	0.0309	0.0000	0.0800	0.0085
LATR _t ²	---	----	-0.0102	0.0530
LGDPCT _t	0.0495	0.0074	0.7733	0.5437
LEXC _t	-0.3237	0.0954	-0.1766	0.4552
LCPI _t	0.0871	0.0000	0.0984	0.0000
LTOT _t	---	----	0.1907	0.2398
<i>R-squared = 0.9877</i>		<i>R-squared = 0.9896</i>		
<i>Adjusted R-squared = 0.9854</i>		<i>Adjusted R-squared = 0.9871</i>		
<i>F-statistic = 419.7558</i>		<i>F-statistic = 399.9417</i>		
<i>Durbin-Watson = 1.5203</i>		<i>Durbin-Watson = 1.7018</i>		
<i>Prob(F-statistic) = 0.0000</i>		<i>Prob(F-statistic) = 0.0000</i>		

This effect is demonstrated by a “Trade Laffer Curve” that explains the relationship between tariff rates and trade revenue. When tariff rate is high, it reduces the trade tax revenue due to reduction in imports volume. On the contrary, the lower tariff rate may also reduce the tax revenue from trade openness. Pakistan has already relatively liberalized its border, additional discounts in tariff rate will not be the source of any addition in trade revenue.

Table 5.5: Short Run results

Dependent Variable = ΔLTR _t				
Variables	Coefficient	Prob. Value	Coefficient	Prob. Value
Constant	-0.3221	0.1470	-0.2102	0.0531
ΔLATR _t	0.0345	0.0829	0.0517	0.0327
ΔLATR _t ²	---	----	0.1021	0.0512
ΔLGDPCT _t	0.0477	0.0263	0.0326	0.0001
ΔLEXC _t	-0.0237	0.4235	-0.2410	0.2047
ΔLCPI _t	0.0537	0.0000	0.2210	0.2399
ΔLTOT _t	---	----	0.2020	0.0131
ECT _{t-1}	-0.2948	0.0429	-13813	0.0106
<i>R-squared = 0.8400</i>		<i>R-squared = 0.8296</i>		
<i>Adjusted R-squared = 0.8220</i>		<i>Adjusted R-squared = 0.8117</i>		
<i>F-statistic = 33.3340</i>		<i>F-statistic = 99.9417</i>		
<i>Prob(F-statistic) = 0.0191</i>		<i>Prob(F-statistic) = 0.0000</i>		
<i>Durbin-Watson = 1.6192</i>		<i>Durbin-Watson = 1.7018</i>		

Table-5.5 presents the results of short run behavior of trade revenue variables and trade tax. The trade revenue is positively associated with average tariff rate. A 1 percent increase in tariff rate replies to raise trade revenue by 0.030 percent. Average tariff rate is positively linked with trade revenue in square term of average tariff rate in short run. A one percent increase square average tariff rate will bring .101 percent positive change in trade revenue. The above results show that Pakistan improves tariff rate for more trade revenue in short run in the incidences of less welfare loss. The U shaped behavior of trade liberalization and trade tax revenue do not exist in short run.

In short run, GDP Per capita has highly significant positive effect on trade tax revenue in Pakistan. The association between trade tax and GDP per capita is positive. The estimates predicated that a 1 percent positive change in per capita GDP as s results of .0477 percent increase in trade tax revenue. Per capita or growth of per capita capture the effects of consumer demand. As we established the relationship between exchange rate and trade tax revenue. The elasticity of coefficient indicates that trade tax revenue in Pakistan is adversely related. A 1 percent change accord in exchange rate causes 0.0237 percent reduction in trade tax revenue and this association is statistically insignificant. . Consumer prices index has positive impact on trade revenue for short span of time. The elasticity coefficient shows that a one percent increase in domestic prices will bring 0.0537 percent increase in trade revenue. When the domestic prices increase, the import demand will increase which affects the trade revenue positively.

Short-run estimates are presented in table-5.5. The coefficient of lagged error correction term i.e. EC_{t-1} shows the speed of adjustment towards long run equilibrium. The sign of EC_{t-1} is negative and statistically significant at five percent. The coefficient of EC_{t-1} is equal to -0.294 and it is significant at 5 percent level of significance. Furthermore, coefficient of EC_{t-1} suggests that in case of economic shocks, the long run equilibrium will be reestablished with the speed of 29.40 percent per year.

6. Conclusion

The main purpose of this study is to discover the fiscal implication of trade liberalization and trade revenue. Laffer curve approach is used to see the non-linear relationship between trade revenue and trade liberalization in case of Pakistan. ARDL testing is used to instigate the empirical investigation for time series data. The empirical results show that trade liberalization has positive impact on trade revenue in linear term. Average tariff rate significantly increases trade tax revenue because our trade items are less price elastic in nature in short run. GDP Per capita and inflation rate also promote trade tax revenue in the long run because more income surge the foreign imports demand.

Trade revenue is positively related with tariff rate in linear term, while average tariff rate is negatively related with trade revenue in non- linear term. Our empirical evidence

confirms the existence of Trade Laffer curve behavior in Pakistan in the long run but not in the short run. Pakistan has already relatively liberalized its border, additional discounts in tariff rate will not be the source of any addition in trade revenue. Furthermore, the result indicates that there is reverse association between exchange rate and trade revenue both in short and long run. As high inflation in domestic economy leads towards depreciation of local currency and against foreign exchange rate. Therefore, the inflation targeting through effective monetary arrangements can help improve the trade revenue in the future. For policy formulation Pakistan should increase the average tariff rate for trade revenue generation in the short run, because, less import demand behavior causes more trade revenue with less welfare loss.

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The Role of Visual Merchandising in Impulse Buying Behavior: An exploration from the lens of young adult consumers

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Abstract

The study was conducted to identify the relationship between young adult consumer's impulse buying behavior and visual merchandising. Five techniques of visual merchandising which are window display, store layout, lighting, promotional signage and brand name was considered in the study to determine the effect. A convenient sampling technique was used to gather data. The young adult consumer's including male and female ($N=290$, age range between 16 to 35 years) was considered for data gathering. To study the variables, questionnaire is adapted from different author's (Rook & Fisher, 1995),(Bhalla & Anuraag, 2010),(Wanninayake & Randiwela, 2007),(Dua & Karolia, 2008),(Bhatti & Latif, 2014). Stepwise regression showed that five dimensions of visual merchandising window display, store lay out, lighting, promotional signage and brand name effect young adults consumers' impulse buying behavior directly. Findings also indicate that Visual merchandising has turned out to be an essential variable nowadays to attract consumers and to increase sales.

Keywords: Visual merchandising, Impulse buying behavior, window display, store layout, lighting, promotion signage, shop brand name.

JEL Classification: M3, M31, M37.

1. Introduction

All businessmen and traders are trying to equip themselves with modernization, improvement, differentiation and innovation at any cost due to red ocean rivalry in the markets and to distinguish themselves from competitors. They want to get big share in the markets and to increase their profits, but it is only possible by using different store atmospheric elements and its components (Bhatti & Latif, 2014). According to (Smith & Murphy, 2012) differentiation become tough for retailers grounded in marketing mix such as price, product, place and promotion. So, visual merchandising has become more operative for differentiation. In stores, lighting, color and window display are different elements that have direct effects on consumer's impulse buying behavior.

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The visual merchandising is an activity which promotes sale of merchandise particularly by its presentation in an outlet (Shagal, Shagal, & Sharma, 2016). Visual merchandising fundamentally defined as everything that a consumer sees (interior and the exterior factors), creates optimistic picture of a product in the mind of a consumer and creates desire, attention, interest, and finally action on consumer's part (Bastow-Shoop, Zetocha, & Passewitz, 1991). Therefore, store atmosphere which includes light, music, color, and display plays a very critical role to enhance the consumer's shopping experience.

Impulse buying is a quick, powerful and a complex purchase behavior of consumer. According to (Rook, 1987), the impulsive buying is a constant feature of consumer's behavior and a vital thing for the market strategic plans.

Hefer and Cant (2013) states that every retailer wants that their outlets should be striking enough to attract the consumers and offer those products that are the demand of the customers and motivate them to make plan for impulsive purchase. To make public familiarize with their brands, the advertisers use millions of moneys every year. If visual merchandising does not have this effect desired by the consumer, the question arises whether there is any value for the shopkeepers to spend their time as well as money on the visual merchandising techniques. According to (Karbasivar & Yarahmadi, 2011) the shopping environment in a store is a very essential determinant of impulsive buying behavior for consumer. It is composed of variables which are micro and are explicit to shopping situation and limited to a geographic space. Now a day, merchandisers are continuously working on how they can grab the attention of the end customers to make an increasingly impulsive purchase. Companies continuously working on the atmosphere of their outlets effectively for this purpose and, they carry out survey and researches' on how can they control the behaviors of the consumer for their brands. To be successful it is essential for retailer to have an ability to create different ideas and to be aware of what is happening in the industry to keep them updated.

The aim of this study is to find out how visual merchandising influences impulse buying behavior of young consumers and to determine those factors that have most impact on young adult consumer buying behavior. The key objective of this study is to find out the effect of Window display, Store layout, Lighting, Promotional signage and brand name on young adult consumer's impulse buying behavior. This study was being designed to add more to the previous research, regarding effect of visual merchandising on consumer's behavior and help the retailers who want to increase their profit by attracting more and more consumers through visual merchandising.

2. Literature Review

Now a day, retailers are facing intense competitive environment in the markets. They are facing many difficulties to discriminate their outlets from their competitors. In the past, they may discriminate themselves based on price, people, products, place and promotions. In the extant literature many outlets fundamentals like colors, product display, store layout, brand name and lighting have direct and immediate effects on the

buying decision of consumers. Many researchers inquire on this topic and find out that visual merchandising has direct effect on consumer behavior. This study aims to find out effect of visual merchandising on young adult consumer behavior and how some fundamentals of visual merchandising effect behavior?

2.1. Visual Merchandising

Visual merchandising (VM) is defined as “presentation of goods in an effective manner, which influences customers’ buying behavior” (Walters & White, 1987). Visual merchandising means providing right product to right consumer and of course at right time. Visual merchandising is an activity which promotes sale of merchandise particularly by their presentation in an outlet (Shagal et al., 2016). So, everything that a consumer sees, whether external or internal, influences impulse buying behavior of consumers. Retailers have realized now that consumer’s satisfaction and convenience are more important than just selling the products (Quartier, Vanrie, & Van Cleempoel, 2009).

Different definitions about visual merchandising are proposed by many researchers. Kerfoot, Davies, and Ward (2003) describe it as an action by which commodity’s choice coordinates with helpful products presentation. (Ebster & Garaus, 2011) describe visual merchandising as a science as well as an art of products presentation, which visually engaged customers. Diamond and Diamond (2004) said that visual merchandising can be described as the unique presentations of any outlet and its different products in such ways, that intended to magnetize the interest of the consumers, and encourage them making a purchase. The visual merchandising involves, how products are visually commune to shopper and whether the message that must be communicated is interpreted correctly (Wanninayake & Randiwela, 2007). Bhalla and Anuraag (2010) stated that the process of visual merchandising is habitually known as “silent sales person” because it provides consumers information through different visual channels like lighting, product display, store layout, etc.

In an effective visual merchandising store, both exterior and interior factors are included. Display of products in windows is one of the important elements of visual merchandising because it creates first impression and image in to the consumer’s mind who entered in the store. The arrangement of products on its optimum is called window display. Window display can be defined as a glamour, a glow, a point, a liveliness as well as a spark that environs an outlet and make the customers stop, come across and buy (Jain, Sharma, & Narwal, 2012). Chandon, Hutchinson, Bradlow, and Young (2009) explained that retailers neglect lot of the arrangement of their windows when they decorate and design their outlets. Creative floor covering, backdrops and fittings influence the window display to attract customers. Successful stores windows are being changed frequently based on seasonal change, new arrivals, customers demand (Shagal et al., 2016).

Floor layout is another name of store layout which influences consumer behavior. As, (Davies & Tilley, 2004) comprehend that how various segments, sub sections as well as corridor of an outlet are structured with essential and uncomplicated idea of getting customers for the longer time and promote them to buy additional. According to (McGoldrick, 2002), the layout that forces the consumer to select a specific way throughout the store, maximize consumers association with products as they pass through every corridor is called Forced pattern layout. It also boosts the chances of unintended buying among consumers.

Some store elements like colors as well as lightning are included in the techniques of visual merchandising. Many researchers studied the psychological and physiological effects of colors and conclude that temperate colors like red will increase the blood pressure and high respiratory rate (Gajanayake, Gajanayake, & Surangi, 2011). Rook (1987) state that the bright lights in the stores could increase the chance of impulse buying. In addition, it is suggested that the soft lights can bring customer in shop to inspect products. In contrast, (Areni & Kim, 1994) found that bright lights tigers browsing product in an outlet but not in particular, affects the sales intensity. So, consumers hold and look at items more below the bright lights than soft lights (McGoldrick, 2002). Shagal et al. (2016) stated that proper lights increase the sales of merchandise by up to 20%.

Varela, Ares, Giménez, and Gámbaro (2010) defines brand as an agreement, a contract or a promise with the maker of product and is a symbol of quality. According to (Keller & Aaker, 1998) brand is an important element of visual merchandising and it is communicated to consumers through advertisement. Krutulyte, Costa, and Grunert (2009) said that the brand name is generally more powerful than packaging. Promotional signage can be words that can be used alone as well as in the combination with the displays to express product and to notify the promotional information to consumers to encourage purchasing. Effectual promotion signage may be helpful for sellers to boost their products sales and their profit margin. Different researchers accept the significance and effects of advertisement and promotional signage on unintentional buying. There is enormous impact of advertisement on the amount of impulse purchase (Ali & Hasnu, 2013). The different fundamentals that are used to measure the straight effect on consumer's decisions are low price, sales promotions, discounts and price cutback (Thaler, 1985),(Tendai & Crispen, 2009).

2.2. Consumer's Impulse Buying Behavior

Plenty of human activities are obsessed by impulses, that are psychologically and biochemically motivated. Wide-ranging research have been started in 1950's on impulse buying consumer behavior and wanted to explore the decisions about purchase that is made by the consumers after stepping into the store environment. Researchers states that an unintended purchase are impulse buying. The description was normally operationalized as "difference among consumers total buying at the end of shopping

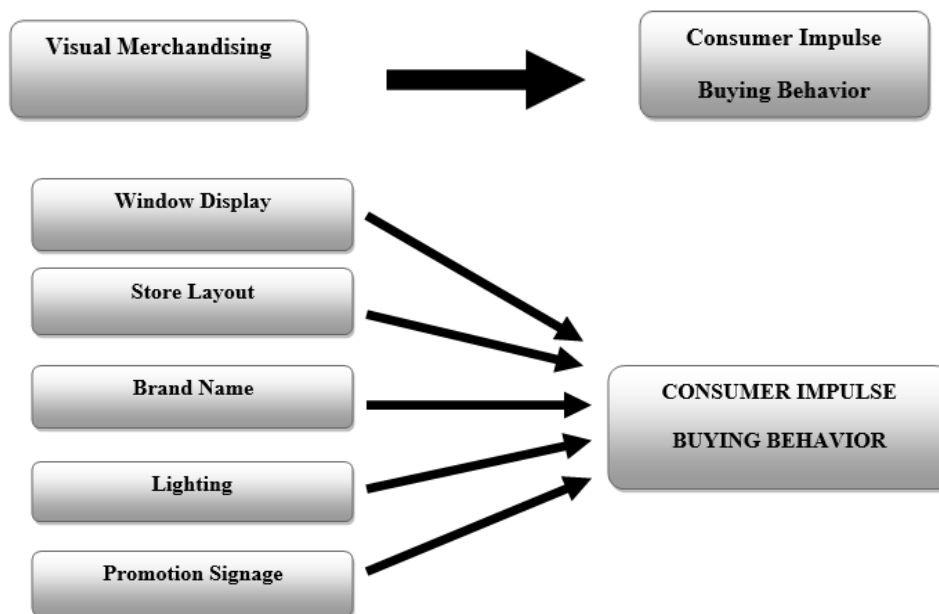
and those purchases which were scheduled or the intentional buying earlier to enter in the store”. Various studies investigate the consistency of unintentional buying across the various categories of a product in the different environments (Clover, 1950),(Applebaum, 1951). The purchase that is done without lot of thinking is called ‘Impulse buying behavior’. One convincing and broad explanation of ‘psychological impulse’ is a powerful or at times irresistible need or an abrupt liking to act without thought (Goldenson, 1984). Impulse buying is knowingly not planned, but immediately takes place with a firm motivation (Wolman, 1973).According to (Rook, 1987) it is done without evaluation of different things such as need, low cost, price, etc.

Jain et al. (2012) considered the impact of VM on consumer impulse behavior and found that it has powerful influence on buying behavior of customer. Shelf presentation has also affected the impulse buying behavior of consumers. There is natural trend in consumers to focus and observe those items which are located at eye level. So, displays can increase the unplanned purchase in a store.

It is inferred from the literature that window display, product display, promotional signage, store layout, lighting, brand name are significant dimensions to be researched in visual merchandising. If visual merchandising dimensions are applied correctly and productively, the sales of store can increase hugely. Market researchers have an immense curiosity in this field, but a lot of questions regarding impulse purchase behavior, remain unreciprocated.

3. Theoretical Framework

Following framework was designed based on extensive literature review:



3.1. Research Hypotheses

To study the relationship, between Visual merchandising and the consumer impulse buying behavior, five hypotheses are developed after reviewing the literature:

H1: Consumers who do impulse buying are significantly influenced by Window Display.

H2: Consumers who do impulse buying are significantly influenced by store layout.

H3: Consumers who do impulse buying are significantly influenced by Lighting.

H4: Consumers who do impulse buying are significantly influenced by Promotional Signage.

H5: Consumers who do impulse buying are significantly influenced by Brand Name.

4. Research Methodology

The aim of the study was to determine the effects of selected visual merchandising techniques upon the consumers' impulse behavior. So, this study uses an explanatory research to respond the stated research hypothesis. Quantitative research method was employed. To test the proposed hypotheses, a self-administered questionnaire was adapted using a five-point Likert scale from 300 respondents of the universities and colleges of Lahore. The questionnaire was adapted from different author's (Rook & Fisher, 1995),(Wanninayake & Randiwela, 2007),(Dua & Karolia, 2008),(Bhatti & Latif, 2014). The reliability of the questionnaire was check through Cronbach's alpha. The value of Cronbach's alpha was 0.78. Hence, the questionnaire reliability was confirmed.

Convenience sampling was used to collect the responses from sample in this study. It is a non-probability sampling in which data is collected from the respondents who are easily available (Marshall, 1996). One more motive of using convenience sampling was that the actual size of the population was not known i.e., young adult consumers. For analysis, this study focuses only on the young adult consumers in LAHORE city between the ages of 16 to 35. The key motivation to choose this age group was, people under age of 35 were pressured by the high trend of impulsive buying. The youngsters show more impulsiveness than the middle adult people, who are expected to control their desires and to be soothers to make unprompted buying (Ghani & Jan, 2010).

In this study, the software SPSS (Statistical packages for social sciences) version 21 was used for the analysis. To analyze the collected data, the statistical methods used include; Descriptive statistics, Pearson correlation and regression analysis to understand the effect of visual merchandising on young adult consumer's impulse buying behavior.

5. Data Analysis and Findings

5.1. Demographic Analysis

The analysis demonstrates that among the 290 respondents 21.4% are males and 78.6% are females. Age analysis shows that most of the respondents comprise between the age of 15 to 25 they are 95.9%. Only 4.1% are between the age of 26 to 35. Material status

shows that 97.9% respondents are single, while only 2.1% are married. Education analysis shows that 4.1% respondent's education level is intermediate, 79.3% respondent's education level is bachelor's and 16.6% respondent's education level is master's and above. Job status shows that 8.3% respondents are employed while 89% are unemployed and only 2.8% are part time employeis.

5.2. Descriptive statistics

The descriptive statistics show that the mean value for the dependent variable (Impulse Buying Consumer Behavior) was 3.81 and standard deviation was .103. Similarly, mean and standard deviation for independent variable (window display) was 4.12 and .159 respectively. Mean and standard deviation of store layout was 3.68 and .153, lighting was 4.03 and .133, promotional signage was 4.12 and .165 and for Brand name was 4.13 and .146.

Table 1: Pearson Correlation

		Impulse Buying Consumer Behavior	Window Display	Store Layout	Lighting	Promotional signage	Brand Name
Impulse Buying Consumer Behavior	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	290					
Window Display	Pearson Correlation	.687**	1				
	Sig. (2-tailed)	.000					
	N	290	290				
Store Layout	Pearson Correlation	.688**	.216**	1			
	Sig. (2-tailed)	.000	.000				
	N	290	290	290			
Lighting	Pearson Correlation	.626**	.432**	.429**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	290	290	290	290		

Promotional signage	Pearson Correlation	.596**	.890**	.195**	.479**	1	
	Sig. (2-tailed)	.000	.000	.001	.000		
	N	290	290	290	290	290	
Brand Name	Pearson Correlation	.673**	.666**	.327**	.160**	.490**	1
	Sig. (2-tailed)	.000	.000	.000	.006	.000	
	N	290	290	290	290	290	290

According to the given table, there exist a positive relationship between the dependent variable which is young adult consumers impulse buying behavior and the independent variable visual merchandising (window display, store layout, Lighting, promotional signage, Brand name). At 0.01 levels (2-tailed) correlation of all variables is significant. Pearson Correlation (r) shows Consumer's impulse buying behavior and Window display have significant Positive relationship ($r = .687$, $n = 290$, $p\text{-value} < 0.01$). Similarly, Store Layout have significant Positive relationship ($r = .688$, $n = 290$, $p\text{-value} < 0.01$). Lighting has significant Positive relationship ($r = .626$, $n = 290$, $p\text{-value} < 0.01$). Promotional signage has significant Positive relationship ($r = .596$, $n = 290$, $p\text{-value} < 0.01$). Similarly, Brand Name has significant Positive relationship ($r = .673$, $n = 290$, $p\text{-value} < 0.01$).

5.3. Regression Analysis

Table 2: ANOVA

Model	Mean Square	F	Sig.
Regression	2.405	1007.691	.000 ^a
Residual	.002		

The independent variable Visual Merchandising has significant impact on dependent variable Young adult consumers' behavior as verified by p value which is 0.000 (shown in ANOVA table). $F = 1007.61$, ($p\text{-value} = 0.000 < 0.05$). So, there exists sufficient evidence to conclude that an independent variable is helpful for calculating the influence on young consumer behavior of Lahore, Pakistan. Consequently, the model is useful and fit.

Table 3: Model summary
(Impulse consumer buying behavior and Visual Merchandising)

R	R Square		Adjusted R Square		Durbin-Watson	
.882	.778		.777		1.959	
Coefficients (Impulse consumer buying behavior and Visual Merchandising)						
	Un standardized Coefficients		Standardized Coefficients		Co linearity statistics	
	B	Std. Error	Beta	t	Sig.	VIF
(Constant)	.545	.103		5.288	.000	
Visual Merchandising	.814	.026	.882	31.744	.000	1.000

The Independent variable (*Visual Merchandising*) has a significant effect on dependent variable (*Consumer's impulse buying behavior*) as p-value = 0.000 i.e. < 0.05. Similarly, positive ($B = .814$; p -value < 0.05) shows positive relationship between Visual merchandising and Consumer's impulse buying behavior. The value of $r = .882$ which lies between 0 and 1 represents strong relation between Visual merchandising and young consumer impulse buying behavior. According to the above mentioned model summary, the value of R^2 is 0.778. It represents that 77% of variance in dependent variable i.e. Consumer's impulse buying behavior is due to our independent variable i.e. Visual Merchandising and remaining 23% is due to those factors which are not taken in this study. So R^2 represents that 77% of the model is defined by included variables, whereas there exist some other factors or variables which are also significant and affect Consumer behavior.

Table 4: Model summary (*Impulse consumer buying behavior and Window display, Store layout, Lighting, Promotional signage, Brand name*)

	R	R Square	Adjusted R Square	Durbin-Watson
Window Display	.687	.472	.470	1.811
Store Layout	.688	.473	.471	1.590
Lighting	.626	.391	.389	1.652
Promotional Signage	.596	.356	.353	1.728
Brand Name	.673	.452	.451	1.983

Table 5: Coefficients (*Impulse consumer buying behavior and Window Display, Store layout, Lighting, Promotional signage, Brand name*)

	Un standardized Coefficients		Standardized Coefficients		
	<i>B</i>	Std. Error	Beta	<i>T</i>	Sig.
(Constant)	1.968	.115		17.104	.000
Window Display	.448	.028	.687	16.051	.000
(Constant)	2.102	.107		19.725	.000
Store Layout	.466	.029	.688	16.075	.000
(Constant)	1.859	.144		12.923	.000
Lighting	.485	.036	.626	13.605	.000
(Constant)	2.277	.122		18.652	.000
Promotional Signage	.373	.030	.596	12.607	.000
(Constant)	1.841	.128		14.388	.000
Brand Name	.477	.031	.673	15.428	.000

The Independent variables (*Window Display, Store Layout, Lighting, Promotional Signage and Brand Name*) has a significant effect on dependent variable (*Consumer's impulse buying behavior*) accordingly as: P -value = 0.000 i.e. < 0.05. Similarly, a positive ($B = .448$; p -value < 0.05), P -value = 0.000 i.e. < 0.05. Similarly, a positive ($B = .466$; p -value < 0.05), P -value = 0.000 i.e. < 0.05. Similarly, a positive ($B = .485$; p -value < 0.05), P -value = 0.000 i.e. < 0.05. Similarly, a positive ($B = .373$; p -value < 0.05), P -value = 0.000 i.e. < 0.05. Similarly, a positive ($B = .477$; p -value < 0.05) shows positive relationship between Consumer's impulse buying behavior and independent variables respectively. Hence our all 5 hypotheses are accepted.

The value of $r = .687$, $r = .688$, $r = .626$, $r = .596$, $r = .673$ which lies between 0 and 1 represents strong relationship between Consumer's impulse buying behavior and window display, Store Layout, Lighting, Promotional signage and Brand name respectively. According to the above-mentioned model summary, $R^2 = 0.472$, 0.473 , 0.391 , 0.356 and 0.452 for window display, Store Layout, Lighting, Promotional signage and Brand name respectively. Which means 47% of variance in dependent variable i.e. Consumer's impulse buying behavior is due to our independent variable i.e. Window display and store layout. Furthermore, 37%, 39% and 45% variance are due to Lighting, Promotional signage and Brand name respectively. Durbin-Watson is 1.811, 1.590, 1.652, 1.728, and 1.983 for each respectively that lies between 0 and 4 shows there is no autocorrelation and error terms are independent of each other.

6. Discussion and Conclusion

To study the relationship, between VM and the consumer's impulse buying behavior, five hypotheses are developed after reviewing the literature. There is sufficient evidence provided by the data, regarding significant relationships between selected visual merchandising techniques (window display, store layout, lighting, promotional signage, Brand name) and young consumers' impulse behavior. The details of each hypothesis are as below:

H1: Consumers who do impulse buying are significantly influenced by Window Display.

Analysis of this study stated that there is direct and strong relationship between window display and the young consumers' impulse behavior. The results entail that the young consumers be likely to make impulse purchases when they saw an eye-catching Window display. This result is in accordance with the studies of (Mathew, 2008),(HUBRECHTS & KOKTÜRK, 2012),(BHATTI & LATIF, 2014).

H2: Consumers who do impulse buying are significantly influenced by store layout.

Analysis of the study stated that there is also direct and strong relationship between store layout and young consumers' impulse buying behavior. Because a good store layout encourages the buyers to move in a comfortable and free flow space to look around the articles, which influence young consumer to make an impulse purchase. This result is also in accordance with and supported by the studies of (McGoldrick, 2002),(MICHON, CHEBAT, & TURLEY, 2005),(SCHIFFMAN & KANUK, 2007),(LEE & KACEN, 2008),(BHATTI & LATIF, 2014).

H3: Consumers who do impulse buying are significantly influenced by Lighting.

The analysis also stated that there is direct but moderate relationship between Lighting and young consumers' impulse buying behavior. Better and colorful lighted products push customers to shop, and promote purchasing. This result is also in accordance with the studies of (ARENI & KIM, 1994),(MCGOLDRICK, 2002),(BHALLA & ANURAAG, 2010).

H4: Consumers who do impulse buying are significantly influenced by Promotional Signage.

According to analysis of the study, there is a direct but moderate relationship between promotional signage and young consumers' impulse buying behavior. The promotional signage has a vast impact on increasing the amount of impulse buying. People buy more when they see any discount or clearance sale on products. This result is also in accordance with the studies of (Youn & Faber, 2000),(Laroche, Pons, Zgolli, Cervellon, & Kim, 2003),(Virvalaite, Saladiene, & Bagdonaite, 2009),(HUBRECHTS & Koktürk, 2012).

H5: Consumers who do impulse buying are significantly influenced by Brand Name.

Analysis of the study also stated that there is a direct and strong relationship between Brand Name and young consumers' impulse buying behavior. Because when the store does well in developing its loyal consumers, at whatever time the consumer sees that brand she or he wants to purchase it without any plan. This result is also in accordance with the studies of (Fichter & Jonas, 2008),(Ares, Giménez, & Deliza, 2010),(Bhatti & Latif, 2014).

7. Limitations and Future suggestions

The data was only collected from the Lahore city. So, study sample was geographically limited. Moreover, the instrument was limited to the quantitative method. The qualitative research for this study might have different outcomes regarding the perception of the customers. Finally, there are numerous overlooked variables that can play moderating role and can impact the consumers' buying behavior e.g. living standards etc. It is recommended that a qualitative approach as well as a combination of both approaches is recommended for future researchers to grasp the perception of customers regarding their impulse buying behavior. Retailers and marketers point of views can also be evaluated in future researches. Furthermore, internal and external motivators of impulse buying can be added to expand the phenomenon of the impulse buying behavior.

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