INTRODUCTION

Review of Economics and Development Studies (READS) is a double-blind peer-reviewed Multidisciplinary research journal published quartely by CSRC Publishing, Center for Sustainability Research and Consultancy Pakistan. The journal is independently managed by Editor–in–Chief with the assistance of Advisory Board and associate fellows of CSRC comprising of distinguished faculty at higher education institutions. The journal aims to cover topics and issues in various sub-areas of economics and development studies in general and particularly in the context of emerging and developing economies. The major and significant purpose of this journal is to highlight the theoretical and applied issues faced by economic managers, businesses and society in the economies. The journal especially welcomes submissions which cover the topical areas related to sustainable economic development in emerging and developing economies.

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The journal considers articles written in all areas of economics and development studies in emerging economies including but not limited to micro economics, macroeconomics, financial economics, environmental economics, sustainable economic growth and development, monetary economics, econometrics, agriculture economics, international economics.
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- ESJI (Eurasian Scientific Journal Index)
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Land Reforms in Central Asia: The Transition from Production Cooperatives to Services Cooperatives

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 ARTICLE DETAILS

ABSTRACT

At the eve of Independence, the political leadership of Central Asian Republics was committed towards privatization. Different liberalization strategies were announced that would follow effective state legislation. It was intended that the privatization program would be extended towards agriculture sector and land reforms would be introduced. But the literature reveals that relatively very little development has been made in this domain and no detailed plan for agriculture reforms or efficient legislation on privatization of agriculture land has been adopted. This study analyzes the Imperial and post-Imperial era land tenure arrangements in the Central Asian Republics that includes an analysis of the land tenure legislations made so far in the republics during Soviet and post-Soviet era. An analysis of the legislations yields the dramatic presence of imperial legacy in the land tenure system and conspiracy of silence on the land reforms in Central Asian Republics.

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1. Introduction

The semi-arid Central Asian Republics (CAR’s) had a total of 274.4 million hectare arable land at the time of independence from Soviet Union (IMF, 1992). See the table below for individual republic’s data. Land tenure becomes vital in such scenarios.

Table 1: Arable Land and Sewn Area in Central Asian Republics in 1990 (million hectare)

<table>
<thead>
<tr>
<th>State</th>
<th>Territory</th>
<th>Arable Land</th>
<th>Sewn Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>271.7</td>
<td>197.6</td>
<td>35.2</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>19.8</td>
<td>10.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>14.3</td>
<td>4.3</td>
<td>0.8</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>48.8</td>
<td>35.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>44.8</td>
<td>26.6</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Land tenure relates individuals with land as human beings have feet and no roots (Grieves, 2008). The association of human with land is ensured somehow or another through land tenure arrangements. Land Reforms are basically the process of changing these arrangements.
The outspread classification of land tenure arrangements can be delineated by three distinct characteristics based on the rights over the land. The first one is the sole ownership which establishes the sole rights of earnings, inheritance, alienation and *Abusus*. The other form is the Usufructuary ownership which establishes limited rights over the holding. The rights are limited to *Usus* and *Fructus* only. The owner is not entitled to the right of alienation and *Abusus*. The third kind is Collective ownership vested in a firm or organization. The individual as a shareholder possess corporate rights.

Land reforms can be termed as an attempt to transition from one kind of land tenure arrangements to another (De Janvry, 1981). State being the driving force in land reforms assign and reassign the ownership rights. The legislation made so far in CAR’s in wake of land reforms initiatives did not satisfy the true essence of land reforms. The whole legislation made so far in the context of land reforms, since the collapse of the Soviet Union in 1991, is mere regulatory arrangements for the state owned collective farms.

The Republics follow the former Soviet style collective model (kolkhoz); where the state confiscates the private ownership rights of individuals. The state collective model of land reforms was introduced in mid 1920’s in the former Soviet Union to boost production (Gleason, 1993). The Soviet Imperialist’s collective model (kolkhoz) replaced the former Russian Imperialist individual farming model i.e., Khutors. Khutor was introduced in Imperial Russia through Stolypin agrarian reforms in 1906-1914 that revolutionize the traditional commune (Obshchina) form of agriculture (Lieven, 2006).

The CAR’s inherited the imperial legacy and continued with the Soviet Model even after independence in 1991. Although the Soviet style production cooperatives have been transformed and modified into services cooperatives through timely legislations and individuals are entitled to paper shares yet the sole-ownership of land vests in state. Cooperatives are associations, of individuals or legal entities, striving towards a collective goal (services or production). The individuals or other legal entities forming such associations become its members. The members are provided with shares in the property of association in return for their investment in the collective capital of the association in the form of cash deposits or other valuable assets. The profits earned by the cooperatives are distributed among its members in proportion to their shares. A member can leave a cooperative anytime without the approval or consent of other members. A member can only be removed from membership on violation of the constitution of the cooperative. The expulsion must be backed by a unanimous vote of the general assembly. On expulsion, the member is entitled to his share in the form of cash or any other kind as prescribed by the charter of the cooperative. The transfer of shares by a member can be made only on the consent and approval of other members of the cooperative. The shares are not freely marketable (Csáki & Lerman, 2000).

Cooperatives are analogous to the business corporations; the only point of difference is that the former aims to maximize the benefits for its members and the later to maximize the profits respectively (Bhuyan et al, 1998). The International Cooperatives Alliance (ICA) describes production and services cooperatives as follows:

- Production cooperatives are those cooperatives in which the members are collectively involved in the process of production. The production might be of manufacturing, agriculture commodities, or services of any kind. Production cooperatives include Agriculture Production Cooperatives where the members are jointly involved in cultivation of collective resources of cooperative (farms and machinery) thereby producing various farm products. The Soviet era collective farms are example of agriculture production cooperatives.
- The other kind of cooperatives is the Services Cooperatives in which the members are provided with services for their independent production of the cooperatively held land.

The CAR’s and all other Commonwealth Independent States (CIS) continued the Soviet established land pools (collective farms) and provide marketing services to the joint production instead of providing it to individual members. However the CIS production cooperatives also provide certain services to the members like providing household plots and other externalities of the collective production, thereby developing a unique kind of cooperative—a mixture of production and services cooperative.

The sway of legislation regarding land in CAR’s from Soviet-Era productive cooperatives to higgledy-piggledy services cooperatives in the wake of land reforms develop the conspiracy of silence on private ownership of land by the state actors.
The figure below illustrates the right to private ownership of land in CAR. The state authorities are completely silent on private ownership and have delivered only a few rights. The individuals are provided with paper shares and not concrete plots of the land in almost all the CAR.

<table>
<thead>
<tr>
<th>State</th>
<th>Private Ownership</th>
<th>Privatization Strategy</th>
<th>Allocation Strategy</th>
<th>Transferability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>Household plot</td>
<td>None</td>
<td>Shares</td>
<td>Buy and Sell of private plots</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>None</td>
<td>None</td>
<td>Intra-farm leasehold</td>
<td>Use rights non-transferable</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>All Land</td>
<td>None</td>
<td>Intra-farm leasehold</td>
<td>Use right non-transferable</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>None</td>
<td>None</td>
<td>Shares</td>
<td>Use rights transferable</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>None</td>
<td>None</td>
<td>Shares</td>
<td>Use rights transferable</td>
</tr>
</tbody>
</table>

The transitional economies of CAR’s have made very little progress in land reforms. The state authorities have not taken any solid steps in this regard. The mere regulatory legislation and transition from production cooperatives to chaotic services cooperatives does not satisfy the need for land reforms in true essence. CAR’s are hesitating from taking concerted steps to ensure complete privatization of land. The supportive arguments established against the privatization are the traditional inconsistency of CAR’s with private ownership and the odds of disruption of already installed network of farms; though both arguments are subject to debate. The CAR’s remained under Soviet Communist-Imperialism and is reluctant to privatization programs. Although the case of arable land should be an exception to both systems of communism and capitalism as private ownership of land (household land) neither satisfies the primary characteristic of capitalism i.e. production for profit; as agriculture land can be used for household food production unlike commercial lands which are exclusively used for profits; nor it can be owned collectively or by state as it would affect the individual’s basic right and would strengthen the impression of monarchy respectively. It should be dealt as natural right of an individual like the right to life and liberty. The right to have private property is the inherent right of every individual and should be respected accordingly in every system and society. However, there should be a definite system for division and distribution of arable land. Distinction should be made between family farms and farms used exclusively for commercial purposes. Certain limitation should be imposed on private ownership.

References
Use and Utility of Teacher Guides for Primary School Teachers in Punjab

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ARTICLE DETAILS

| History | This study is aimed at soliciting public primary school teachers’ viewpoints on use and utility of teacher guides, an initiative of government of the Punjab. Data were collected through focus group discussions of male and female teachers from District Sargodha. Teachers were asked to discuss need, importance and use of teacher guide and to suggest ways to improve. Focus group discussions were audio recorded, transcribed and analyzed for extracting themes. It was found that teachers acknowledged the need and importance of teacher guide for better teaching. It was noted from their discussion that teachers used Guides for lesson planning and activities but use of teacher guide was not optimal. Some of the teachers were using it in best possible way, while majority were using it occasionally. They highlighted difficulties and challenges like high workload, language of teacher guides and lack of learning material required for suggested activities. They suggested revising guides for language, removing inconsistencies with respect to schedule of guide and academic calendar. They also suggested lower workload of teachers by recruiting new teachers, providing teachers with training to use guides and making monitoring and supervision more rigorous. |
| Keywords | Teacher Guides, Utility, Use of Teaching Guide |
| JEL Classification: | A20, A21, A22 |

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1. Introduction

Quality of teaching and learning in public primary schools in general and in the subjects of English, Mathematics and Science in particular has been a concern of the government of the Punjab. Various initiatives have been introduced and experimented to increase the pedagogical competence of working teachers. Recently renamed as Quaid-e-Azam Academy for Educational Development (QAED), the Directorate of Staff Development (DSD) formerly known as Education Extension center was established in 1959 for the professional development of working teachers in Punjab. DSD has been involved in in-service teacher training programs to improve teachers’ competence. In 2012, a Continuous Professional Development Program was launched in Punjab initially in 12 districts and then in all the 36 districts.

In order to support the PSTs (PSTs) in implementing the National Curriculum 2009, the Government of Punjab took an initiative, with financial support from international donors (DSD, 2012), regarding provision of teacher guides. The task of development of teacher guides was entrusted upon the DSD. The DSD engaged experts from public and private schools for the preparation of teacher guides in the subject of Urdu, English, Mathematics and
Science.

The Government of Punjab, provided teachers’ guides in the subjects Urdu, English and mathematics (Grades 1 to III) and in subjects English, mathematics and science (grades IV & V). Success of any initiative in classrooms depends heavily upon the teachers who teach these classes. Any initiative that does not match with its implementers’ views and beliefs is liable to failure and teachers are not an exception to it. Keeping in view the importance of PSTs views and beliefs as far as the success of teacher’s guides’ initiative is concerned; it is not only important but necessary to develop deeper insights into teachers’ views and beliefs regarding use and utility of the guides in primary classrooms.

There is ample research based evidence for use and utility of teacher guides in various contexts. Teacher’s guides are manuals full of ideas and notes about how to organize instruction in the classrooms (Harmer, 2007). The teacher’s guides should be flexible so that these could be adapted in varying contexts and should satisfy the teachers’ needs (Cunningsworth, 1995). The teacher’s guides need also to provide explicit ways for planning instruction and how various values that are included in the curriculum best match with the teachers own teaching beliefs and practices. These guides should also provide guidance on the age and level of the learners who may benefit from it (Cunningsworth & Kusel, 1991). The teachers can maximize the benefit of teacher’s guides if they facilitate teachers in designing and implementing formative assessments in order to monitor the progress of learners (Zabihi and Tabataba’ian, 2011).

Motivation is a key to learner, hence teacher’s guides should be organized in such a way that can develop motivation among teachers to teach and among learners to learn (Cunningsworth & Kusel, 1991). Further the teacher’s guide should split the concepts into smaller portions keeping in view the attention span of young learners and to avoid any instances of boredom (Chastain, 1988). For the successful imlemention of teacher’s guides, it is important that the guides should be easy to understand, written in a language which is native to its users, and should forward simple and clear suggestions regarding various tasks. The teachers guides which are developed according to the teachers and learners needs has a potential to be implemented by the practitioners (Hemsley, 1997). The teacher’s guides can play an important role in forming the classrooms practices of teachers, especially the beginners and who are teaching in a second language as a medium of instruction (Cunningsworth & Kusel, 1991).

The use of teacher’s guides varies by the teacher. Some teachers try to follow the guides in tru letter and spirit, some take only guideline and than plan their own instruction keeping in view their local needs and there are some who hardly bother to look at them (Barr & Sadow, 1989 and Durkin, 1984). The availability and use of teacher’s guides become more important in the contexts where people join the teaching workforce without prior teacher training (Gearing, 1999) and in many countries where teacher training is missing, these guides are the only source for pedagogical guidance (Richards, 1993).

According to Cunningsworth and Kusel (1991) there are five functions i.e. 1) describe general goals and methodology, 2) develop teachers’ capacity, 3) develop an understanding regarding course materials’ structure 4) guidance on practical use of the suggested material and 5) provide lingo-cultural information. A teacher’s guide has a potential to help the teacher for innovating new tasks, assessments and methodologies (Cunningsworth, 1995). Teachers generally plan for instruction in advance, though this planning can vary from teacher to teacher and context to context. Some teachers prepare a well sequenced written plan, the other may prepare a mental sketch. It can vary in complexity from teacher to teacher (Jensen, 2001).

This study has been conducted in the context public school of Punjab, Pakistan. In public schools textbook remains the only teaching source for a large majority of PSTs. It is a common practice to ask the student to read aloud from the textbook in languages followed by questions from the teacher’s side. The only exception, perhaps, is mathematics, where demonstration, drill and practice are commonly used as a method of teaching. These practices make learning experience dull and boring. A teacher who plans a lesson in advance can make learning meaningful and interesting for all the learners. Since lesson planning is concerned with what to teach, how to teach and how to assess, therefore, it has remained part of pre-service teacher training programs, but has hardly been practiced by the PSTs. Some senior teachers claim that they have plans in their mental bank, hence they can teach by using their memory and wisdom (Jones 1998). In public primary schools of Punjab, six classes (Nursery to V) are accommodated. A large majority of the schools have access to very limited human and physical resources. Most of the primary schools have two classrooms (there are many without functional classrooms), and on average 3 teachers. The schools do not have access to any type of teaching and learning aids except shared white/black boards.
and textbook.
The teacher’s guides initiative brought a change in the schools since the teachers had one more teaching aid with them which could have been more helpful. Since the teacher’s guides talk about teaching and learning process and its outcome, therefore, the teachers who wish to help their children can better prepare themselves. Teacher’s guides have the potential to make teachers autonomous learners as they learn self-reliance in their presence (Hemsley, 1997). On the other hand, Breen and Candlin (1987) mentioned that teacher’s guide can be viewed as a week servant of textbooks.

Human action and behavior is determined by some of the personality traits which are not visible. These hidden traits include attitudes, beliefs, self efficacy, self concept and many more (Pajares 1992). Ford (1994) defined beliefs as, “group of norms or opinions which were formed in the individual through his experiences and the overlapping of thoughts during the learning processes”. As Harste, Woodwards and Burke (1984) claimed, “teachers make decisions about classroom instruction in light of theoretical beliefs they hold about teaching and learning. Teachers’ beliefs influence their goals, procedures, materials, classroom interaction patterns, their roles, their students, and the schools they work in”.

Specific objective of the study was to solicit PSTs’ perspectives on need, importance, use and usefulness of teacher guide provided to them by government of the Punjab. Since Government of the Punjab has spent a huge amount on provision of teacher guide to all PSTs to improve teaching learning process in Government primary schools, therefore it is importance to research into what teachers say about use and utility of these guides.

2. Research Methodology
It was a qualitative inquiry employing focus group discussion technique for data collection. Fifty male and fifty female PSTs were selected from ten cluster centers of district Sargodha. Two groups of five male and five female teachers were selected from each of the ten cluster centers. It constituted twenty groups comprising five teachers each. All the twenty groups were engaged in focus group discussions one by one. They were asked to discuss need, importance, nature and extent of their use, challenges and difficulties in use and ways to improve teacher guides. All the sessions were audio recorded with the permission of the subjects. All the recorded discussions were transcribed, responses were coded and themes were extracted by discourse analysis.

2.1 Focus Group Discussions
In order to know the views of PSTs regarding use and utility of Teacher’s guides fFocus group discussions were conducted. In all twenty groups (10 each for male and female teachers) were formed to discuss following.

1. Why teacher’s guides are needed for PSTs?
2. What is the importance of teacher’s Guides for PSTs?
3. How do they use and how often do they use teacher’s guides while teaching in their classes?
4. What steps School Education Department should take to ensure maximum use of teacher’s guides by PSTs?
5. What difficulties and challenges do they face in using teacher’s guides?
6. Do they have any suggestions for the improvement of teacher’s guides?

3. Findings
Teachers’ responses during focus group discussions were recorded, transcribed, coded and analyzed to extract themes of discussions. The findings are presented below for each question.

3.1 Need of teacher guide
In response to the first question regarding need of teacher’s guides for PSTs, the teachers communicated that the guides are needed in order to improve effectiveness of the teaching and learning process by providing model lesson plans. One of the teachers said that “teachers can teach better by preparing for teaching with the help of teacher’s guides as it enables them to understand the structure and composition of effective lesson plan”. The other points emerged during discussion included:

1. Teacher’s guides can help teachers to plan and prepare for teaching more effectively. Teachers’ responses included:
   a) “Teacher guides provide teachers with guidance about methods of teaching”
   b) “teachers guide enables teachers to learn how to teach”
   c) “Teacher can devise their strategy for teaching to follow on next day”
   d) “It guide us how to teach “
   e) “It guides teachers how to teach, what to teach and order of teaching”
f) “Teacher can make lesson easy by using teacher’s guide”
g) “It has provided teacher with a framework to follow “

2. Teacher’s guides provide teacher ready to use lesson plans.
3. “Lesson plans in teacher guides are SLO based therefore SLO are achieved more effectively. Further animations and pictures are helpful in explaining and making concepts clear”.
4. One of the teachers was of the view that “teacher’s guides save teacher’s time in preparing lesson”

3.2 Importance of teacher’s guides
The second question for the focus group discussion was, what is the importance of teacher’s guides for PSTs. It has been found that all the teachers believed that teacher’s guides are important for the PSTs since:

a) The “guides include lesson plans which enable teachers to prepare for teaching, assessing students learning and assigning home work”.
b) Teachers can develop new activities and tasks for the students by reflecting how the activities suggested by the guides have worked in the classrooms.
c) The guides provide student centered activities which may be used by the teachers in order to engage the learners.

3.3 Extent of use of teacher’s guides
The analysis of the data has revealed that the use of teacher’s guide vary by teachers. Around half of the teachers responded that they hardly use teacher’s guides, whereas around one quarter mentioned that they often used and another quarter of teachers mentioned that they use these guides on daily basis. Some teachers mentioned that they use the teacher’s guides to the extent of suggested student activities. It simply means that a large majority of the respondents occasionally use the guides provided to them by the Government of Punjab. This finding is surprising especially the DSD has been supporting and monitoring the use of teacher’s guides by the teacher through their district and cluster level monitoring and support staff.

3.4 Nature of use of teacher’s guides
In response to question, “How do you use teacher’s guides while teaching?” the teachers responded that:

1. They “follow whole process as given in teacher guides and guided by DTE”.
2. A few teachers reported that “they compared text book and teacher’s guides to decide how to teach and what to teach and which aspect of teacher guide needed to be followed. They chose activities from the guides”.

3.5 Suggestions to ensure use of teacher guides.
The following suggestion for the effective use of teacher’s guides were forwarded by the respondents:

1) Align teaching calendar with the lesson plans given in the teacher’s guides
2) Align lesson plans with the SLOs given in the textbook
3) There should be rigorous monitoring mechanism in place for the implementation of teacher’s guides initiative
4) Increase number of teachers so that there is a one to one class and teacher ratio so that teachers have some breathing space to look at the teacher’s guides. The workload needs to be rationalized.
5) Teachers should be provided proper training for the use of teacher’s guides.

3.6 Difficulties in using teacher guides
The PSTs highlighted the following difficulties they face while using teacher’s guides;

1) Extra ordinary workload of PSTs due teacher shortage.
2) Unavailability of resources mentioned in the teacher guide.
3) Lack of training to use teacher’s guides.
4) Shortage of teacher’s guides for newly inducted teachers.

3.7 Suggestions to improve teacher guides
In response to the question, “How to improve teacher guide?” the teachers suggested that simple language should be used in the teacher’s guides. The PSTs’ representatives should be engaged in development of teacher guides. Student activities suggested in the teacher’s guides should be developed keeping in view the resource availability at the schools.

4. Discussion and Recommendations
Teacher’s guides is an important tool in the hands of teachers to make their teaching effective. Teacher’s guides is especially recommended for teachers with training needs and nonnative English speaking teachers (Gearing; 1999 Richards; 1993; Colman, 1986). Public PSTs of Punjab were provided with teachers’ guides to enable them implement new curriculum successfully. Teachers’ recruitment policy of government of the Punjab also allowed untrained teachers to be recruited. Initiative of teachers guides also aimed at supporting novice untrained teachers to teach effectively at primary school level. Effectiveness of teachers’ guide depend upon nature and extent of use by the teachers. Present study revealed that use of teachers’ guides by the teachers was not optimal and nature of use also varied among the teachers. These findings were in consonance with findings of previous research studies like Sadow (1989), Moulton (1994) and Durkin (1984). Keeping in view teachers’ responses on teacher guides provided to them by government of the Punjab and Literature on nature and composition of teacher guides (Cunningsworth and Kusel1991; Jones, 1998; Hemsley, 1997; Romiszowski, 1968), it can be claimed that composition and content of teacher guide under discussion are up to the mark and useful. Teachers Guides provided teachers with lesson plans based on student learning outcomes, composed of elaborated content and activities supportive to achieve the learning outcomes. It is a Universal Phenomenon that no initiative can be implemented without proper monitoring, training and motivation. Teachers suggested rigorous monitoring, guidance and training for teachers’ motivation.

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The Moderating Role of Supervisory Support in the Relationship of Emotional Intelligence and Job Performance of Pharmaceutical Sales Representatives

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ARTICLE DETAILS

ABSTRACT

The objective of this research paper is to find out the relationship of Job Performance (JP) with Emotional Intelligence (EI) of Pharmaceutical Sales Representatives (PSRs) of various pharmaceutical companies operating in Khyber Pakhtunkhwa (Pakistan). Another objective of this research investigation is to check the moderating role of Supervisory Support (SS) in the EI-JP link. Data was collected from 400 PSRs of companies operating in Pakistan through convenience sampling technique. Structural equation model (SEM) was utilized for data analysis. The results of the study revealed that those PSRs having high EI had high performance. Furthermore, SS does not moderate the EI-JP link.

JEL Classification: J20, J28, J29.

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1. Introduction

In recent years there has been an increased emphasis on researching the role of EI in selling sector. Organizational psychologists have proved that employees’ EI significantly determines job-related outcomes in the working environment (Abe, 2011; Davis, & Humphrey, 2012; Fadaei, & Kenari, 2014; Farnia, & Nafukho, 2016). Researchers have proved that EI is of prime importance for a sales job. Sales representatives’ (SRs) performance is related to their ability to manage emotional and social problems and to brilliantly face the negative feelings produced by failures in sales (Brown, Cron, & Slocum, 1997). It should also be emphasized that their emotional intelligence level enables the salespersons to quickly resilience after receiving the emotional aftershocks that is a routine problem. Deeter-Schmelz and Sojka (2003) found that high performing salespeople unknowingly use their EI skills to be efficient in their work, and especially when they use the skill of empathy to know the customer’s needs perform better. They also maintained that perceiving others’emotions, and self-awareness positively influences sales calls and their impression on the customers respectively. The ability of self-regulation helps them in focusing issues and working with customers.

Cho, Rutherford and Park (2013) maintained emotional aspects as a serious phenomenon in the sale sector. At the same time, Hur, Han, Yoo and Moon (2015) suggested that supervisory support could be studied in relationship of EI and JP of sales representative. In general, however, it is concluded that highly emotionally intelligent
salespersons perform better in their work environment. Thus, this research was planned to study the moderating role of SS in the relationship of EI and JP of PSRs.

In Pakistani context, EI has been studied in relationship with OCB (Ali, 2009), students’ academic performance (Nasir, 2011), employee turnover (Siddiqui, & Hassan, 2013), teachers’ performance (Baloch, 2014), and medical students’ stress level (Moghal, Yasienn, Alvi, & Washdev, 2016). Researchers found that EI is positively related to JP (Batool, 2014; Ghuman, 2016; Haakonstad, 2011; Jorfi et al., 2010; Love, Edwards, & Wood, 2011; Shahhosseini, Silong, Ismail, & Uli, 2012). Some researchers found that emotional intelligence negatively related to JP (Mitrofan, & Cioricaru, 2014). Some researchers suggested that organizational factors need to be investigated as moderating factors in the relationship between EI and JP (Giorgi et al., 2014). Thus, SS was taken to study the relationship between EI and JP (Giorgi et al., 2014; Hur et al., 2015).

2. Literature Review

2.1 EI and JP

Suliman and Al-Shaikh (2007) found that EI infuses creative and innovate qualities; decrease frustration level, goal conflict, and work-family conflict. Sales representatives are supposed to work in a situation where emotional and social skills are essential. EI is a paramount optimizer of salespeople’s performance (Haakonstad, 2011; Ugwu, 2011). Brown et al. (1997) maintained that managing emotional problems and negative feelings at the time of failure result in high performance (Brown et al., 1997). Higher the EI the greater the annual sales revenue (Kidwell, Hardesty, Murtha, & Sheng, 2011). Kidwell et al. (2011) also maintained that high EI level enables the sales force to retain customers. Research has proved that EI positively predicts sales performance and bad and good performers have the same level of EI in sale sector (Harris, 2009). Lindebaum and Cartwright (2011) maintained that EI may not yield desired outcomes.

A research study conducted by Jennings and Palmer (2007) found that EI development of sales representatives positively influences sales revenue of pharmaceutical companies. Jennings and Palmer (2007) took two groups, i.e. one is given with EI training program and the other one was control group. The EI and sales growth of the trained group was measured and then compared to the control group. The EI level of trained employees improved 18% as compare to control group which was decreased by 4%. Moreover, compare to control group, the sale revenue of the trained participants improved by an average of 12%. Bryant (2005) found that there is no relationship between EI and sales performance of employees at automotive retail stores.

This is clear from the findings of the aforementioned studies, that EI is a predictor of sales representatives’ JP. But there might be some organizational factors, i.e. supervisory support that increases the relationship between the emotional aspects of sales representatives with their JP (Hur et al., 2015). Not only the sales sector, but EI is phenomenal factor vital for services sectors. EI positively influences organizational citizenship behavior (Ali, 2009; Yaghoubi, Mashinchi, & Hadi, 2011; Cohen, & Abedallah, 2015). Employees’ EI positively predicts their impression at work environment (Cole, & Rozell, 2011). Researchers found that EI is positively related with performance of employees (Batool, 2014; Farnia, & Nafukho, 2016; Ghuman, 2016; Shamsuddin, & Rahman, 2014). Others found that EI positively predict job satisfaction of employees (Anari, 2012; Fadadi, & Kenari, 2014; Ghoniem, Elkhoyly, Mohsen, & Ibrahim 2011; Ignat, & Clipea, 2012; Jordan, & Troth, 2011; Mousavi et al., 2012; Nezad, & Bahramzade, 2013; Randeree, & Chaudhry, 2012).

Moreover, applying the structural equation modeling (SEM) for data analysis, the issue of EI in relationship with JP of PSRs with the moderating role of SS in the pharmaceutical sector of Khyber Pakhtunkhwa (Pakistan) has not been addressed yet. Accordingly, the study in hand was designed to explore the said issues. No doubt, pharmaceutical industry plays a vital role in the economy of a nation through rehabilitation of individuals’ health. As the pharmaceutical industry significantly contributes to the economy and health of Pakistan, the sale employees’ EI and JP is worth investigating.

2.2 SS as Moderator

SS is an important aspect of perceived organizational support (POS). Research has proved that POS is important for the relationship between personal level psychological factors and job-related outcomes of employees (Hur et al., 2015). According to Hur et al. (2015), POS positively moderates the link of surface acting emotional labour strategy with job satisfaction, and the link of deep acting emotional labour strategy with job performance.

Simosi (2012) found that POS positively moderates the relationship between supervisory support and training
transfer. Khan, Mahmood, Kanwal and Latif (2015) studied the mediating effect of POS on the link between SS and workplace deviance. Khan et al. (2015) contended that POS partially mediates the link between SS and workplace deviance, and employees perceive support when the organization ensures performance based rewards, growth opportunities, and employees’ participation in decision making. At the same time, it is true to say that SS has also been found important for the relationship between personal level factors and job-related outcomes of employees. Wickramasinghe (2012) found that supervisory support moderates the relationship between work schedule flexibility and job stress. Lu, cooper, and Lin (2013) found that the higher the SS the greater the negative relationship between presenteeism and exhaustion.

Nixon, Yang, Spector and Zhang (2011) added organizational support moderates the relationship between emotional labor strategies and job-related outcomes of employees in the retail sales sector and mobile phone companies. Chen, Sun, Lam, Hu, Huo and Zhong (2012) studied the interfering role of burnout, job satisfaction and SS in the relationship of emotional labor strategies and performance of employees employed at hotels in China. Chen et al. (2012) found that the SS moderates the relationship between emotional labor strategies and job satisfaction and burnout of hotel employees. Faheem and Saeed (2015) found that high SS positively strengthens the relation of behavior-based sales control system with employees’ work engagement. Yragui, Demsky, Hammer, Dyck and Neradilek (2016) investigated the moderating role of family-supportive supervisor behaviour in relationship of workplace aggression with well-being and work. Yragui et al. (2016) found that supportive behaviours of supervisors lessen the turnover intention among the care providers employed in hospitals. Yragui et al. (2016) also added that supportive behaviours do not strengthen the link between coworker psychological aggression (CPA) and turnover intention, but positively moderated the relationship between CPA and physical symptoms.

Yongxing, Hongfei, Baoguo and Lei (2017) studied the moderating effect of POS in the relationship between work engagement and performance. Yongxing et al. (2017) found that POS positively strengthened the link between work engagement and performance. Kim, Hur, Moon and Jun (2017) found a positive relationship between deep acting and job performance, which was positively moderated by the SS. Kim et al. (2017) further added that SS aggravate the negative relationship between surface acting strategy and job performance of flight attendants of an airline company of South Korea.

Jafri (2018) investigated the moderating role of SS in the relationship of trait EI and creativity. He found that job autonomy and SS positively moderated the relationship between EI and employee creativity relationship. On the basis of Hur et al.’s (2015) and Kim et al.’s (2017) suggestions, this study was designed to investigate the moderating role of SS in the relationship between emotional intelligence and job performance of PSRs. Thus, on the basis of the above discussed literature, it was hypothesized that:

H1: EI is positively related with JP of PSRs.

H2: SS positively moderates the relationship between EI and JP of PSRs.

Figure 1: Conceptual Framework

3. Methodology
3.1 Population, Sampling, and Sample Size

According to a recent report of Pakistan Pharmaceutical Manufacturers’ Association (PPMA), there are 752 registered pharmaceutical companies employing more than 240000 employees operating in Pakistan (Waheed, 2017). As this research study aims to study the moderating role of SS in the relationship of PSRs’ EI with their JP. In order to pursue the aim of this study, the PSRs of pharmaceutical companies operating in Khyber Pakhtunkhwa (province of Pakistan) were chosen as population for the study. The convenient sampling is followed when the population is just too large that it is impossible to include every individual. Another reason for convenient sampling is that it’s a fast, inexpensive, and easy and the subjects are readily available. As the regional offices of the
pharmaceutical companies are situated in Peshawar, thus the data was collected from the PSRs of Peshawar region on the basis of convenience sampling technique. In order to collect the data from a sample of 384 PSRs (Krejcie & Morgan, 1970), 600 questionnaires were distributed among PSRs of Peshawar region, i.e. 300 questionnaires in the first phase and 300 questionnaires in the second phase. Among them only 421 questionnaires were received. 21 questionnaires were found useless/incomplete, thus withdrawn, and the rest 400 (66.67% response rate) was found complete in all respects, were utilized for data analysis.

### 3.2 Data Collection Tool
The tool of self-reported questionnaire was utilized to measure the EI, perceived SS and JP of PSRs. The questionnaire comprised of three parts, i.e. first was a covering letter, second part asks demographic information like age, education, experience, gender, job status, marital status, and company information, third part measures main variables of the study. Data were collected by visiting clinics and hospitals wherein PSRs were supposed to market their products. After ensuring the respondents’ and companies’ anonymity, and the confidentiality of the information provided, they were requested to provide the data. The purpose of the research study was introduced and questionnaire items were explained to the PSRs.

### 3.3 Measurement Scale
In order to measure the EI, SS, and JP of PSRs, existing scales were used. The widely utilized and accepted Schutte et al.’s (1998) 33-items tool was adopted for measuring PSRs’ EI. A typical item is ‘I expect that I will do well on most things I try’. For measuring SS of PSRs, DeConinck and Johnson’s (2009) four items scale was adopted. In order to measure the criterion variable, i.e. JP of PSRs, four items tool was adopted used by Hur et al. (2015). Responses were collected and recorded on a five point Likert scales that ranged from ‘strongly disagree’ to ‘strongly agree’.

### 4 Data Analyses
For measuring the moderating role of SS in the relationship of EI and JP of PSRs, the AMOS module was used for SEM and confirmatory factor analysis (CFA). Table 1 shows the minimum, maximum, mean value, standard deviation, and alpha (α) measured for EI, SS, and JP of PSRs with the help of descriptive statistics. The alpha (α) shows the reliability of the constructs, i.e. EI, SS, and JP were 0.79, 0.86, and 0.75 respectively, were found acceptable (Nunnally, 1978).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min.</th>
<th>Max.</th>
<th>M</th>
<th>S. Dev.</th>
<th>Alpha (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
<td>97</td>
<td>159</td>
<td>131.32</td>
<td>10.45</td>
<td>0.79</td>
</tr>
<tr>
<td>Supervisory Support</td>
<td>4</td>
<td>20</td>
<td>16.50</td>
<td>3.04</td>
<td>0.86</td>
</tr>
<tr>
<td>Job Performance</td>
<td>9</td>
<td>20</td>
<td>17.13</td>
<td>2.07</td>
<td>0.75</td>
</tr>
</tbody>
</table>

### 4.1 Measurement Model
Measurement model is the tool utilized to check the goodness of fit between the hypothesis developed and the data collected. In order to measure the variables of this research investigation, CFA was conducted.

### 4.2 CFA of the variables
CFA were run for EI, SS, and JP of PSRs. CFA was measured in the parameters of root mean square residual (RMR), goodness-of-fit index (GFI), comparative fit index (CFI), root mean square error of approximation (RMSEA), and chi-square ($\chi^2$). The model utilized is said to be fit when the value of RMR is equal or less than 0.080 (Hu, & Bentler, 1999), GFI is equal or less than 1.000 (Joreskog, & Sorbom, 1984), the CFI close to 1.000 (Bentler, 1990; McDonald, & Marsh, 1990), and RMSEA is equal or less than 0.08 (Browne, & Cudeck, 1993). Table 2 shows that all the values fall in the acceptable range, thus the models accepted.

Figure 2: Measurement Model of Supervisory Support
Figure 3: Measurement Model of Emotional Intelligence

Figure 4: Measurement Model of Job Performance
Table 2: Calculation of Measurement Model of Variables

<table>
<thead>
<tr>
<th>Goodness of Fit Index</th>
<th>Acceptable Level</th>
<th>Fit Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Emotional Intelligence</td>
</tr>
<tr>
<td>RMR</td>
<td>( \leq 0.08 )</td>
<td>0.056</td>
</tr>
<tr>
<td>GFI</td>
<td>A higher value indicates a better fit</td>
<td>0.846</td>
</tr>
<tr>
<td>CFI</td>
<td>( \geq 0.900 )</td>
<td>0.901</td>
</tr>
<tr>
<td>RMSEA</td>
<td>( \leq 0.08 )</td>
<td>0.059</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>Should be positive</td>
<td>488.0</td>
</tr>
<tr>
<td>Chi-square</td>
<td>-</td>
<td>1168.622</td>
</tr>
</tbody>
</table>

Figure 5: Overall Measurement Model
Table 3: Calculation of the overall Measurement Mode

<table>
<thead>
<tr>
<th>Parameters with the Acceptable &amp; Calculated Measures</th>
<th>Status</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness of Fit</td>
<td>Acceptable Level</td>
<td>Calculated Measures</td>
</tr>
<tr>
<td>RMR</td>
<td>&lt; 0.08</td>
<td>0.054</td>
</tr>
<tr>
<td>GFI</td>
<td>A higher value indicates a better fit</td>
<td>0.911</td>
</tr>
<tr>
<td>CFI</td>
<td>&gt; 0.900</td>
<td>0.930</td>
</tr>
<tr>
<td>RMSEA</td>
<td>&lt; 0.08</td>
<td>0.052</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>Should be positive</td>
<td>841</td>
</tr>
<tr>
<td>Chi-square</td>
<td>-</td>
<td>1740.903</td>
</tr>
</tbody>
</table>

4.3 Structural Model

Structural model of the variables was conducted and the values of CMIN, DF, GFI, CFI, TLI, RMSEA, and RMR were recorded. The values of these parameters were found acceptable as per suggestion of Hu and Bentler (1999), Joreskog and Sorbom (1984), Bentler (1990), McDonald and Marsh (1990) and Browne and Cudeck (1993).

Figure 6: Structural Model of the Variables

Table 4: Goodness-of-Fit for the Structural Model of the Variables

<table>
<thead>
<tr>
<th>CFA Model</th>
<th>CMIN</th>
<th>DF</th>
<th>CMIN/DF</th>
<th>GFI</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Standardized RMR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1740.903</td>
<td>841</td>
<td>2.070</td>
<td>0.823</td>
<td>0.912</td>
<td>0.900</td>
<td>0.052</td>
<td>0.054</td>
</tr>
</tbody>
</table>

4.4 Hypothesis Testing

Regression analysis was conducted for measuring the moderating role of SS in the relationship of EI and JP of PSRs. The results of the regression analysis revealed that EI is significantly related with JP of PSRs. In order to
measure the moderating role of SS, the model of Baron and Kenny (1986) composed of three steps was applied.
The results revealed that SS does not moderate the relationship between EI and JP of PSRs.

### Table 5: Emotional Intelligence, Supervisory Support, and Job Performance

<table>
<thead>
<tr>
<th>Dependent Variable: Job Performance</th>
<th>R²</th>
<th>B</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
<td>0.165</td>
<td>0.080</td>
<td>0.000</td>
</tr>
<tr>
<td>Supervisory Support</td>
<td>0.212</td>
<td>0.150</td>
<td>0.000</td>
</tr>
<tr>
<td>Emotional Intelligence * Supervisory Support</td>
<td>0.212</td>
<td>0.036</td>
<td>0.656</td>
</tr>
</tbody>
</table>

5. Discussion

The main aim of this research study was to analyze the relation between EI and JP of PSRs. The results show that EI positively predicts JP of PSRs. In other words, highly emotionally intelligent PSRs proved high performers. The results of the same EI-JP link are linear with the results of previous researches (Manna, & Smith, 2004; Hamilton, 2008; Harris, 2009). Research has also proved that emotional intelligence is important for customer orientation for PSRs (Pettijohn, Rozell, & Newman, 2010), sale success (Cruz-Moraza, 2013), and professional selling (McFarland, Rode, & Shervani, 2016). However, the result of the second objective i.e. moderating role of SS in EI-JP link contradicts with the results of past researches. This is said to be true that SS is a sort of POS, and researchers have proved that organizational support positively moderates the relationship of EI with employees’ JP (Akhtar, Ghufran, Husnain, & Shahid, 2017) and employee engagement (Akhtar, Ghufran, & Fatima, 2017). For example, organizational support strengthened the relationship between EI and performance, which contradicts with the H2 (SS does not moderate the relationship between EI and JP of PSRs). Specifically, increased involvement in EI was related with high JP among employees with no influence of SS. It is possible to say that employees with high level of perceived support expect higher socio-emotional rewards and well-being compare to those with lower perceived support (Nixon et al., 2011). Thus aptly speaking, if PSRs expect high SS, they may perceive EI as more stressful than those expecting low SS since they are likely to expect more compensation and rewards for their involvement in application of EI at workplace. Therefore, SS does not seem important for PSRs.

In addition, it could be maintained that supervisor’s role is not elemental for job related outcomes of SRs. Researchers proved that SRs generally don’t need direct supervision essentially implies that they should be self-motivated and committed to perform their job better (Simintiras, Lancaster, & Cadogan, 1994). Others found that gifts, drug samples, and sponsorship of physicians to conferences are the tactics influencing physicians’ prescribing behavior which leads to PSRs’ sale performance (Ingole, & Yegnanarayan, 2011). Ease in work completion, career development, internal environment, and no pressure feeling at work (Sahoo, Routray, & Dash, 2014), and education on drugs/products and marketing skills (Meshack, 2015) is paramount for better sales performance of PSRs.

6. Implication of the Research

This research investigation contributes to the study of sales force of pharmaceutical companies in several ways. First, this study looks into the matter of EI in sale sector of pharmaceutical companies working in Pakistan. Second, this research investigation determines the role of SS in the relationship of EI and JP of PSRs based on the suggestions of Hur et al. (2015). This study helps in the better management of psychological well-being of PSRs for tangible improvement in their JP. The predictive power of emotional intelligence for performance suggests the use of emotional intelligence measure as a selection tool by human resource managers.

On theoretical facet, the reliability coefficients for the scales employed provide the idea for future studies. The establishment and dimension of the affiliation between EI and JP extend its validity to the business environment of a developing country like Pakistan. The predictive strength of EI to provide an explanation for the corresponding variation of JP is a crucial contribution of the study to the prevailing frame of knowledge.

On practical aspect, the existing researches have proven that employees’ overall performance can be expected on the basis of their ratings on EI, which additionally has advised using emotional intelligence measures as a diffusion
device by human resource managers (Cadman, & Brewer, 2001; Fatt, 2002). Dulewicz and Higgs (2004) have shown that emotional abilities can be enhanced and developed through schooling courses. Fatt (2002) suggested that managers have to remember the contributions of EI as an essential thing for the improvement of employees. This research study indicated an excessive and effective relationship of EI with worker performance. As a result, management can design EI interventions to train and increase human assets to get work performance improved.

6.1 Limitations and Future Research
Future researchers should conduct a longitudinal study to look into the matter thoroughly. Career progression seems important in the field of pharmaceutical sales sector. So future researchers are advised to investigate the career progression, salary, co-worker support and other benefits like bonus and car choice as moderating or mediating factors in the same link of emotional aspects and job-related outcomes of PSRs. The role of other individual level elements like age, field education (pharmacy, biology, and biochemistry, etc), product knowledge, communication skills, organizational commitment and training could be investigated as moderator in the relationship of EI and JP.

7. Conclusion
The first objective of this research study was to find out the relationship between EI and JP of PSRs. The second objective of this research study was to find out the moderating role of SS in the relationship of EI and JP. The findings reveal that EI of PSRs is positively related to their JP. High level of EI enables PSRs to develop SS in the organization to understand the customer needs, achieve sales targets, and increase market share and enhance their JP.

Surprisingly, it was found that SS does not moderate the proposed relation between EI and JP. It might be added that individuals do not expect SS. The individuals expecting SS, reciprocally needs to involve themselves in applying EI to know and understand the emotions of others as well as their own emotions to perform better may fallen them in stress.

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Implementation of School Improvement Plan through Results Based Management:
A Framework to Practice

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ARTICLE DETAILS

ABSTRACT

A school improvement plan is a “road map” that sets out the changes a school needs to make to improve the level of student achievement, and shows how and when these changes will be made. The objectives of the study were remained as, to identify the practices of Results Based Management (RBM) in relation with the implementation of School Improvement Plan (SIP) on the basis of performance, to explore the perceptions of the heads of schools and Secondary School Teachers (SSTs) about implementation of School Improvement Plan (SIP), to analyze the physical and educational facilitates in school improvement plan. A set of research questions was used to achieve the objectives of the study. The collected data was analyzed by using inferential and deferential techniques of data analysis. The findings and conclusions of the study show that School Improvement Plan is being carried out at secondary schools of Punjab through Result Base Management. It is also revealed that the whole process of school management is revolving around school improvement plan; administration has less training about result base management. Some recommendations are given to synchronize the process to achieve desired objectives of school improvement Plan.

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Keywords:
School Improvement Plan, Result Base Management, Roadmap

JEL Classification:
O20, O29, O30, O39

1. Introduction

A type of management strategy which focuses on performance, outcomes, impacts and achievement of outputs is called results based management. (Rist & Kusek, 2004). According to Rassapan (2003) the idea of the (RBME) Results- Based Management and Evaluation and (RBM) Results Based Management is presumed have been started with (MBO) Management By Objectives and (PPBS) Program Performance Budgeting System of Peter Drucker in the 1960s and progressed into the procedure of reasonable structure for the community segment in 1970s. Different countries have used this with changed names and forms in 1980s and 1990s. Presently it has been established into a confirmed and recognized method for the better answerability, usefulness and competency of public sector. The Zimbabwean Government initiated this in the year 2005 and this idea is being used by most of the international donor agencies now, which was discussed in the document prepared by Malaysian consultant for the Government.
of Zimbabwe.

Results Based Management (RBM) is being used in many different public and private sectors institutions that’s why it can also be used in education sector as well, here the demand can be aligned with the Results Based Management’s (RBM) objective, to provide a rational structure for intended management and planning in a decentralized environment which is grounded on accountability and teaching/learning.

So the researcher can say a results based management strategy is such a type of strategy which ensures by its procedures, productions and facilities contributing to the attainment of defined objectives and anticipated activities. Its main focus is to get the consequences and refine performance, assimilating modules learnt into the decision of management, observing and recording on performance. The initiatives taken for infrastructure, teachers and students of the school to improve the quality of education and for better management are now being categorized with a “Road Map” (http://dsd.edu.pk/pages/contents/74), ensuring:

a) Enrollment of all children of school going age will be 100%;
b) Retention of all enrolled students up to 16 years will be 100%;
c) Free, Compulsory and internationally Competitive education for all:
d) Recruitment and transfer of HR on the basis of merit;
e) Targets for officers and ranking of districts on the basis of targets achievement;
f) Transparency in selection of officers and retaining them with accomplished targets; and
g) Different incentives for good performance.

Statement of the Problem is given as “Implementation of School Improvement Plan through Results Based Management: A Framework to Practice”

2. Review of Related Literature
2.1 Results Based Management

Different things to different people or organization can be meant by Results Based Management (RBM). Simply we can say that RBM is broad management technique which is focused at changing the way as institutions operate and by new methods of improving techniques of performance.

"Results-based lending provides an added tool for Asian Development Bank (ADB) to better meet the needs of its developing member countries and improve development effectiveness," says Principal Planning and Policy Economist Xiaojin Fan at ADB. (https://www.adb.org/features/piloting-results-based-lending-sri-lanka). Poate said in (1997) the effective application of results-based management lies upon the scope of procedure and performance which are presently related to the existing strategic structure or policy. Australian Public Service practices on a government aspect proposes that the institutional structure and policy might comprise formal Cabinet confirmation of assessment necessities, solid managerial and political funding, vibrant commands given by central organization to Cabinet for application and delegation of power to the responsible management.( p.56).

Fruitful application of RBM requires the back up of management system that uses the tool systematically for gathering, arranging, saving, examining and reporting of performance data. (Poate 1997, p.57; Olsen 1997, p.29; Price water house Coopers 1999, p.11). To complete the accountability process or framework a satisfying and effective work force is required. "Accountability is a double road. The association needs to give incentive to the employees who made the product less expensive." (National Performance Review 1999).

2.2 Results Based Management phases

Generally, organizational RBM practices can be divided in twelve procedures or phases, of which the first seven relate to results-oriented planning; (https://pndajk.gov.pk/.../RBM_Handbook_Working_Together_for_Children_July_2017)

a) Investigating the problems to be talked and explaining their reasons and effects;
b) Recognizing key shareholders and receivers, involving them in recognizing objectives and in designing interventions that meet their needs;
c) Articulating probable results, in pure, quantifiable terms;
d) Discovering performance indicators for each expected result, postulating precisely what is to be measured along a gauge;
e) Set targets and standards for each indicator, specifying the expected or planned levels of result to be achieved by specific dates;
f) Mounting a strategy by providing the theoretical outline for how expected results shall be understood, finding main modalities of action contemplative of restrictions and occasions and associated implementation agenda;
g) Matching probable results and the strategy forecast with the resources available;
h) Dealing and watching progress towards results with appropriate performance monitoring systems drawing on data of actual results achieved;
i) Recording and self-evaluating, comparing actual results, the targets and reporting on results achieved, the resources involved and eventual discrepancies between the “expected” and the “achieved” results;
j) Integrating lessons learned and findings of self-evaluations, interpreting the information coming from the monitoring systems and finding possible explanations to eventual discrepancies between the “expected” and the “achieved”;
k) Disseminating and discussing results and lessons learned in a transparent and iterative way.
l) Using performance information coming from performance monitoring and evaluation sources for internal management learning and decision-making as well as for external reporting to stakeholders on results achieved.

2.3 School Improvement Plan
The basic issue to be focused regarding the school improvement is concrete concept of schools and school system. Schools equip the students with knowledge, attitude and the skills which are important for the society and prepare them to serve the society in a better way. The core of school Improvement is the process of making school effective, (Jeilu, 2010, p.173), states “school improvement is an activity to improve the input and process in order to improve teaching learning and students result”. School Improvement focuses on the outcomes as well as the importance of input add to the better of society in which they function, by preparing them with acquaintance, attitude and expertise related to social norms and the demand of society. They are principally places where all pupils enter to learn. Schools therefore, are electric with tasks for delivering more efficiently the most vital instructive services teaching and learning. School progress as an activity to advance the input and course in directive to expand teaching learning and students result. In this situation school development is not only about the outcome, but also the significance of input.

School improvement is commonly defined as the overall efforts to make schools healthier places for learners to study in and the different tactic for educational variation that enrich students’ outcome as well as managing change. (Dimmock, 2000). They are probable to satisfy the desires of all pupils through polices of presence at a time to adopt their obligation more fruitfully, schools should progress their overall practices. The process of making schools effective is a core of what is called school development. According to educational improvement commission EIC (2000) a school improvement plan is a road map that circles out the steps a school needs to take to advance the level of students’ success and display how and when these steps will be taken.

The main focus of school improvement is enhancing students learning outcomes. By coordinating different activities, planning, supervision and estimation etc. of school chores serve as a frame of reference according to their prime concern. The area of SIP is different in different countries. For e.g. the school domains were divided into four categories in MOE (2006) and ACT (2009). These four domains were mentioned in ACT, Learning and Teaching, Leading and Managing, Conducive environment and Community involvement.

Harris, A (2002) states that, no doubt at school level there are many options for the teachers to reset the classroom accordingly for the improvement in teaching and learning process. (As it is an important component of learning outcome). Fulan (1992) and Harris, A. (2002) have stated that school improvement research signifies the main part of teaching learning in accordance of constant school improvement. The curriculum considered very important in teaching and learning process. In the preparation and implementation of curriculum, teachers are the basic factor in delivering content and evaluating the curriculum.

For the safe school improvement, surrounding and healthy climate of school environment plays substantial role. MOE (2006) states school environment is based on the factors such as Focus on students, students’ authorization, students support and implementation of school improvement. The concept of community participation regarding educational affairs is most over used but least understood. The stake holders share and impact the decision on
resources and development initiative by their participation in the community development process. Kruger, A.G. (1996) has also highlighted the following given actions as for parents to participate in schools activities like; assisting children in their home task, fund raising; keep the building and grounds in working conditions; carrying of pupils; Arrangement of school functions, supporting in co-curricular activities and facilitating in school activities. (p. 83). Harris and Linda Lambert (2003) defined the perception of leadership as an endorsed variable depend upon communications among leader supporter and Context.

2.4 Principle of School Improvement Plan
According to Luneburg and Ornstein (1991) there are some guiding principles which are important for school improvement are listed as:

a) Set of goals should be applied from mission statement of school that should be easy to understand.
b) There should be a continuous checking and evaluation of students’ success.
c) School should help all students’ especially low achievers by tutoring and toppers by starting any refinement program.
d) Principal and teachers should be engaged in enhancing capability to modify their information, knowledge and to polish their positive thinking.
e) Every teacher should participate for the success of progressive school programs regarding staff development and educational planning.
f) School community relationships should be strong in the safe and healthy environment of the school to involve the parents and community in the implementation of SIP.
g) The staff, students and parents all should share the responsibility of leadership. (p. 294)

Stoll and Dean Fink (1996) highlight parents, school district, community pupils and other as contributing partners of school. Schools can involve parents contributing a lot in the success of pupils by creating a strong sense of relationship. Barnes (2004) propose that the way to launch a school improvement the first step is to form school improvement team which is a cluster of people who work collectively to develop lead and coordinate the school improvement process. (p. 5)

The school Improvement is a very difficult process which can be confronted by diverse aspects during its stage of implementation. In this approach, (Fullan, 2001, p. 89-90) has mentioned that when a fresh derivative is presented unfeasible it will make difficulties for individuals and for institutions. Thus, for accomplishment of the program it is essential to consider stimulating aspects prior to the implementation of the program and in owing process. A few complications identified by Khosa (2009) contain; dysfunctional schools are fail to attain learning outcomes by the negligence of not converting time, teaching, physical and financial assets into learning process properly. In proper, incomplete and poor methodology of delivery curriculum is another major problem of the system. More to that, ineffective district support and monitoring functions also work as a hurdle in improvement. Last but not least, support of community to school is not significant.

The main problem that challenge school improvement efforts contain; missing of providing performance standards for pupils, teachers, staff and develop a standard guide system to evaluate the schools, create incentive systems to encourage self and peer monitoring and evaluation, and stimulate support and community for quality education. Earl et al., (2003). Stoll and Fink (1996) specifies as (Anderson, 1992, p. 84) says lack of willingness, awareness and knowledge of required change, incompetency to make the change and belief that change will bring no difference to the students are major challenges in attainment of SIP.

School improvement manual (MOE, 2007, p. 2-3) also explains the hindrances of SIP implementation such a shortage of training, reluctant school teaching and administrative faculty, unacceptable deviation from traditional practices, no organized efforts for programme monitoring, no focus on awareness of stakeholders and absenteeism of their participation at different level. Similarly, Harris and Chapman (2002) also stated implementation of SIP in developing countries as a challenge to bring changes in working system in school management. Similarly in Pakistan, deficiency of important inputs, low level of dedication and inspiration, poor management abilities are the expected challenges we have to face in applying SIP.

The objectives of the study were as to:

a) Identify the practices of Results Based Management (RBM) in relation with the implementation of School Improvement Plan (SIP) on the basis of performance.
b) Explore the perceptions of the heads of schools and Secondary School Teachers (SSTs) about implementation of School Improvement Plan (SIP).
c) Analyze the physical and educational facilitates in school improvement plan.

3. Methodology
Study was descriptive in nature and survey method was used to collect the data from respondents included in the study. Besides, following procedure was used to carry out the study;

3.1 Population
The purpose of the study was to investigate and obtain the perspectives of educationalists on the basis of change initiative and explore the experiences, reflections and opinions of those who actually implement the changes in schools. Therefore, the population had to be defined at two categories. For the first category, the institution’s heads that formed the population of the study and at second category, the teachers (SSTs) of all the institutions in the population.

3.2 Sampling
Stratified random sampling procedure was adopted which was focused on the districts included in the study. Districts were selected on the basis of literacy rate (AEPAM, 2011) and http://www.pbs.gov.pk/pco-punjab-tables as given below:

a) Three districts with the highest literacy rate from the province.
b) Three districts with the lowest literacy rate from the province.
c) Three districts with the middle level literacy rate from the province.

Details are as follow

b) 380 out of 181356 (SST), from the province of the Punjab teaching Secondary classes. (Gay, 2009, p. 125).

Because of large population, geographical conditions, shortage of time and large number of school which were not easily accessible for the collection of data so the number of schools’ heads were reduced to 223 and number of teachers have increased to 840 by using convenience sampling. Convenience sampling is known as availability sampling, a specific type of non-probability sampling method which depends on the collection of data from the respondents of population who are conveniently accessible to contribute in the study. (https://research-methodology.net/sampling-in-primary-data-collection/convenience-sampling/)

3.3 Research Design
The research was descriptive in nature as data was collected by questionnaire. It was quantitative and survey method used. Questionnaire. The research tool which was used in this study close ended with five-point Likert scale questionnaires.

3.4 Pilot Study
To check the reliability and validity of the instrument a pilot testing of the instrument has been done in the 4 Schools of District Bahawalnagar (Five Tehsils) with equal participation of urban & rural and male & female school which were not included in the sample, and for the validity of the instrument it has been checked by the three experts of the of their field of specialization i.e., One for Public Management field, one from the education department office and one from the school management specialist.

4. Data Analysis
The data collected by means of different questionnaires was tabulated, interpreted and analyzed by using statistical formula to get quantitative analysis, i.e., percentage, mode, median and z-value were used. To analyze the data, weightage to different options was given as, S.A=5, A=4, Un.C=3,D.A =2 and for S.D.A=1. Data was grouped, coded & analyzed by using statistical techniques of Percentage (%), Weighted Mean (W.M), Standard Deviation (S.D), ANOVA, t-Test & Post Hoc Test through Excel, 2010 & SPSS Version 6.
4.1 Findings of the Study

Table 1: Group: Heads and Teachers of Secondary Schools

<table>
<thead>
<tr>
<th>Respondents Group</th>
<th>Population</th>
<th>Sample</th>
<th>Questionnaires Distributed</th>
<th>Questionnaires Returned</th>
<th>Rate of return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of the school</td>
<td>5590</td>
<td>223</td>
<td>223</td>
<td>200</td>
<td>89.68%</td>
</tr>
<tr>
<td>Teachers (SSTs)</td>
<td>31,517</td>
<td>840</td>
<td>840</td>
<td>803</td>
<td>95.59%</td>
</tr>
</tbody>
</table>

Figure 1: Group: Mean: 4.12, S.D: 0.44 & C.Intrv = (4.56+3.68)

![Policy and Plan](chart1)

Figure 2: Group Mean: 4.3, S.D: 0.3 & C.Intrv: (4.6+4.0)

![Role of School Head](chart2)

Figure 3: Group Mean: 4.1, S.D: 0.3 & C.Intrv: (4.4+3.8)

![School Improvement Plan](chart3)
Figure 4: G.M 3.4 and S.D 0.16 & C.Intrv: (4.05+3.74)

![Communication Chart]

Figure 5: G.M 2.0 and S.D 0.16 & C.Intrv: (2.6+1.6)

![Training and Orientation Chart]

Figure 6: Group Mean : 3.5, S.D : 0.3 & C.Intrv : (4.2+3.6)

![Functional Facilities Chart]
Figure 7: Group Mean : 3.3, S.D : 0.44 & C.Intrv =(4.6+3.2)

4.2 Cross District Analysis (ANOVA)

Table 2: Policy and Plans

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.543223</td>
<td>8</td>
<td>0.192903</td>
<td>2.177265</td>
<td>0.034379</td>
<td>2.02209</td>
</tr>
<tr>
<td>Within Groups</td>
<td>9.923058</td>
<td>112</td>
<td>0.088599</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11.46628</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F calculated (2.177) > F table (2.022), Ho is rejected & H1 is accepted

Table 3: T-Test: Two-Sample Assuming Equal Variances

<table>
<thead>
<tr>
<th>Variable-1 (Lhr)</th>
<th>Variable-2 (R.Pur)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.206897</td>
</tr>
<tr>
<td>Variance</td>
<td>0.165665</td>
</tr>
<tr>
<td>Observations</td>
<td>29</td>
</tr>
<tr>
<td>Pooled Variance</td>
<td>0.14223093</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
</tr>
<tr>
<td>Df</td>
<td>33</td>
</tr>
<tr>
<td>t Stat</td>
<td>1.518804419</td>
</tr>
<tr>
<td>P(T&lt;=t) two-tail</td>
<td>0.138335273</td>
</tr>
<tr>
<td>t Critical two-tail</td>
<td>2.034515297</td>
</tr>
</tbody>
</table>

4.3 Post Hoc Test (Least Square Difference)
ANOVA is significant; it concluded that population means are not all equal. This can then carry out tests by the LSD method.

Table 4: Post Hoc Test (Least Square Difference)

<table>
<thead>
<tr>
<th>Model</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Significance</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rwp-.17882</td>
<td>.07886</td>
<td>.025**</td>
<td>.3351</td>
</tr>
<tr>
<td></td>
<td>Lhr-.17882</td>
<td>.07886</td>
<td>.025**</td>
<td>.0226</td>
</tr>
<tr>
<td></td>
<td>Jhelum-.25844</td>
<td>.10592</td>
<td>.016*</td>
<td>.0486</td>
</tr>
<tr>
<td></td>
<td>D.G.Khan-.29571</td>
<td>.10965</td>
<td>.008***</td>
<td>.0784</td>
</tr>
<tr>
<td></td>
<td>R.Y.K -.22571</td>
<td>.09524</td>
<td>.020**</td>
<td>.0370</td>
</tr>
<tr>
<td></td>
<td>Rajan Pur-.43571</td>
<td>.13391</td>
<td>.002***</td>
<td>.1704</td>
</tr>
<tr>
<td>2</td>
<td>Lhr-.25844</td>
<td>.10592</td>
<td>.016*</td>
<td>-.4683</td>
</tr>
<tr>
<td>3</td>
<td>Lhr-.29571</td>
<td>.10965</td>
<td>.008***</td>
<td>-.5130</td>
</tr>
<tr>
<td>4</td>
<td>Lhr-.22571</td>
<td>.09524</td>
<td>.020**</td>
<td>-.4144</td>
</tr>
</tbody>
</table>
5. Discussion

The findings and conclusions of this research study aimed to find the objectives of the study were as to identify the practices of results based management (RBM) in relation with the implementation of school improvement plan on the basis of performance, to explore the perceptions of the heads of the schools and Secondary School Teachers (SST) who are the part of RBM participating in the process of implementation of School Improvement Plan (SIP), to analyze the physical and educational facilitates in school improvement plan, to examine the retention linkage i.e., enrollment and attendance of students in relation with results based management of the school, to analyze the performance appraisal strategies adopted by school management and to propose revise strategies for the use of Results Based Management, the main research questions based on the above stated objectives were: How does, the results based management link with the implementation of School Improvement Plan (SIP) in Punjab? Does the results based management have effect on the teachers or officers ranking linked with the targets? Which type of the incentives do teachers or officers get for good performance? And to what extent the heads are providing improved physical and education facilitates? The first purpose of the study was focused to "examine the practices of results based management (RBM) in relation with the implementation of school improvement plan on the basis of performance, it can be discussed with questionnaire from the heads. It was discussed that head of the school performs the duty of planner and coordinator, give guidelines of policy and plan to the school staff, he held monthly meeting with the staff about the SIP, monthly meeting are held with the stakeholders of the school and head feel that they are eligible for incentiv because of their performance. Discussion shows that the head give guide lines and instruction to team members for School Improvement Plan; he provides the guide lines and instruction to team members for Results Based Management (RBM), give instructions to the targeted management to implement School Improvement Plan (SIP) in their schools.

6. Conclusion and Policy Recommendations

Following are the conclusion of the study

a) Policy guidelines are given to School administration to carry out SIP Programme
b) Result Based Management Practices are carried out at school level, under the leadership of school Head.
c) The Heads and Teachers are aware of SIP to gadget their daily activities to get better results.
d) Head and Teachers have improved their performance as a source of encouragement from SIP
e) There exist merit based policies about transfer/posting.
f) Incentives are given to teachers for good performance
g) Head performing his duty as a leader, manager and guide according to the situation, for SIP
h) There is a communication system in schools and department through liaison officer
i) There is a weak element of training in schools
j) Counseling and orientation of students are also a point of concern to improve

The data analysis, findings, conclusion and discussion in this study lead to the following set of recommendations:

a. The current SIP (CM Road Map for school improvement) for Secondary School in Punjab presented here is not fully accepted nor has likely for full implementation in the present state of our education system. It may be used with existing conditions of each according to the RBM where the indicator of RBM can be linked with the indicators of SIP.
b. The main part which is partially being implemented that is the training it may be further improved so that SIP can achieve its targets.
c. The perception of RBM may be explained as it may be very effective to achieve the objectives of SIP.
d. The significant beneficiaries of this research are the ‘students’ they may be given a main role to utilize their energies and potential to achieve SIP and RBM goals.
e. To make the RBM process and the role school improvement more valuable and targeted, the evaluation of the team may be offered to some external team, so that this third-party evaluation may make the members to remain energetic and alert for their duty.
f. More incentive to officer/head and teachers may be given on good performance.
g. Clear guide lines and instruction regarding to SIP may be given to each member of team for School Improvement Plan.
h. Network of communication between school, community and stakeholders may be increased.
i. Separate science lab, i.e., Physics, chemistry and Biology may be provided to the students.

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Political Stability and Institutionalization in Pakistan: An Overview of Major Political Developments during 2008-2016

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ARTICLE DETAILS

ABSTRACT

Political development refers to the significance of institutionalization and is a closely interrelated trend of modernization. Political development in a state depends on political participation while political participation depends on institutionalization. Political stability increases the prospects for civilian rule, and institutionalization strengthens the political system. Political history of Pakistan presents the infrequent institutionalization of political system for democratic stability and the political experiences of Pakistan are just a posed in order to understand the problems of political institutionalization. This paper explores the close relationship between institutionalization, political development and political stability, and also highlights the views provided by different social scientists in an explanation of these terms. The purpose of this study is to evaluates the democratic process and major political developments during 2008-2016 as a case study because this is the unique era for political stability and institutionalization in the political history of Pakistan.

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1. Introduction

The current political history of the developing countries shows that those countries have been facing various kinds of political, social and economic problems which have slowed their progress and shaken their stability. Since the beginning of the 1950s, many social science theorists have been involved in studying these developmental problems and their possible solutions. Political development, social mobilization, political participation and political culture have closely relation with each other. In developing countries, the divergence between institutionalization and mobilization is the main idea of politics. In this perspective, an impartial crux of the politics is studied for the growth of political institutions (Huntington, 1968).

Except for Samuel P. Huntington and a few others, most contemporary writers on political change tend to associate modernization with political development. The research of both modernization and political development is vast and complicated. Most writers on comparative politics do not seem to distinguish between political development and modernization. In fact, the two terms have been used interchangeably. Referring to the process of change, Gabriel A. Almond argues,
“Whether we call this set of trends a movement toward a ‘world culture,’ a ‘development syndrome,’ ‘political modernization,’ ‘political development,’ or ‘political change,’ it seems quite evident that all of us have been writing about movement in a particular direction” (Almond, 1970).

Almond is one of the first political scientists to propose a general theory of political development. He studies modernization from the system functional approach. In 1960, he dealt with the functional categories of all political systems, dividing them into input (socialization, articulation, communication and aggregation) and output (rule-making, rule application and rule adjudication). In 1963, he also emphasized on integration, participation, distribution and international accommodative capabilities. In a developed political system, he argues that the structural differentiation is on high degree which is characterized as “the emergence of legislatures, political executives, bureaucracies, courts, electoral systems, parties, interest groups, media of communication” (Almond, 1960).

Political party is a primary institution of any democracy and believed to function democratically for political development. However, the elitist political history of Pakistan shows a totally different scenario. The mainstream political parties are less than a dozen such as; PML-N, the PML-Q, the PPP, the PTI, the JUI-F, the MQM-P and the ANP. There are also many nationalist and religious political parties. These parties have won the most number of seats in every general elections of Pakistan (Salim, 2005).

The inconsistence history of political development in Pakistan reflects the weak organizational strength of political parties, centralized political system and imbalance civil-military relations which restrict the growth of political institutionalization. The selection of Pakistan as a case study is guided by the consideration that this country has lack of institutionalization and uneven political developments. Political parties are perhaps the most significant social organizations and their strength decides the nature of democracy in any country. Huntington saw strong political parties as essential and sufficient conditions for democracy and institutionalization. Political parties have been extremely weak in Pakistan. Existing more as personality centred factions they could not clearly aggregate interests. Factionalism is still a feature of the Pakistani party system (Kanwal, 2017).

2. Political Institutionalization

The process of the evolution and stabilization of institutions is political institutionalization. Huntington defines institutions as “stable, valued, recurring patterns of behaviour” and describes institutionalization as “the process by which organizations and procedures acquire value and stability” (Huntington, 1968). He further describes that political systems can be treated as developed or underdeveloped depending upon their ability to have their institutions keep pace with popular participation. Huntington argues that political institutionalization in a modern polity is not possible without political parties. A political party, according to him, is almost necessary to channelize the participation of the mobilized masses. Huntington also uses the terms political order and disorder instead of political stability and instability (Huntington, 1968).

Institutionalization is a prime requisite of political development. Political development could be accomplished only through strong institutions. The intensity of institutionalization of any society can be considered, according to Huntington, by the following four indices: (1) adaptability in opposition to rigidity; (2) complexity in opposition to simplicity; (3) autonomy in opposition to subordination; and (4) coherence in opposition to disunity (Huntington, 1965).

Political institutionalization is a significant aspect of political development. In trying to differentiate development from modernization, Bill and Hardgrave argued that development should be “understood in terms of a system’s response capacity in relationship to demands”, whereas modernization pertains to “those changes associated with man's increasing control over his natural and social environments” (Bill & Hardgrave, 1973).

Modernization unleashes forces which lead to increasing demands on the political system. It leads to political participation among other things. Samuel Huntington was much more specific in his definition of development. According to him when institutions keep pace with mobilization and participation, political development occurs. When there is a gap between the development of institutions and participation, this is leading to political decay. In order for political institutionalization to take place, mobilization may have to be controlled and gradually expanded as institutions acquire the capacity to absorb it (Bill & Hardgrave, 1973). Huntington argues that political
institutionalization in a modern polity is not possible without political parties. A political party, according to him, is almost necessary to channelize the participation of the mobilized masses (Huntington, 1968).

3. Political Stability
Political development has always depended on political and social stability. Political stability and smooth political transformations always generate constitutional and political developments. In the 1970s, political stability and political development was one of the main topics of comparative politics circle. Particularly, researchers believe that the political stability and political developments are necessary in a democratic government and political parties generate the process of political development (Lei, 2013).

Political stability has great importance in the evolution of a country. A stable political development helps in building a continuous and coherent path for sustainable development. Empirical research shows that the political stability in a country measures through different ways such as economic development, social and cultural development, and political participation and political development. Political stability is directly proportional to the governmental strength. An unstable political environment will bring political instability. Political stability means government stability, which means political stability. “Political stability is like a moving cycle which need to be keep on moving. But it requires maintenance, repairs and reforms on certain interval” (Subba, 2017). In general, political stability explains as:

• The members of the government can change without violence, either by democratic election or some other means of succession.
• Policies don’t change radically between successive governments.
• Institutions like the legal system, the public service and the judiciary don’t change when the government changes (Birch, 2017).
Claude Ake describes political stability as “the regularity of the flow of political exchange. The more regular the flow of political exchange, the more stable” (Ake, 1975). Leon Hurwitz defines this concept with five approaches which follows as: “(a) the absence of violence; (b) governmental longevity/duration; (c) the existence of a legitimate constitutional regime; (d) the absence of structural change; and (e) a multifaceted societal attribute” (Hurwitz, 1973). Shaohua Lei explains political stability in his thesis as: “a durable polity, whereby the central government in the polity has the capability to restrict or control endogenous subversions and to absorb exogenous challenges” (Lei, 2013).

4. Political Participation
Verba, Nie and Kim concentrates more on the objectives of political participation and defines the concept of political participation as “refer to those legal acts by private citizens that are more or less directly aimed at influencing the selections of governmental personnel and the actions that they take” (Verba, Nie & Kim, 1978). Political participation, as showed from its name, concerns only political actions. Finer says participation in one’s family affairs, one’s workplace, the collective or village fields and the like are not political participation except insofar as the policies adopted there are in some clear way related to policies propounded for or administered on behalf of the public as a whole (Finer, 1972).

Verba and Nie make the same distinction between political participation and participation in the other spheres. They have limited their argument to ‘participation vis-a-vis the government’ and excluded participation in the other spheres such as family, school, job, and voluntary associations. Their main concern is “to describe and explain patterns of participation outside of those that are more narrowly political— i.e., aimed at affecting the government” (Verba & Nie, 1972). Nevertheless, the impact of social participation on the political process cannot be neglected. This point, actually, has been stressed by several scholars. The argument is that individuals who are involved in community affairs are much more likely to participate in politics than those who are not active. Perhaps the most important empirical study that supports this argument is Almond and Verba’s findings in The Civic Culture that persons participating in decisions in one organization are more likely to participate also in decisions of other organizations. Political participation takes some form of ‘political action’ to influence the government. Therefore, positive and negative feelings toward the government are not viewed as political participation (Verba & Nie, 1972).

5. Theoretical Framework
Political development is a multi-dimensional concept which is used by different political thinkers, economists and sociologists. Therefore, many perspectives and challenges appeared during analysis on this concept. Political
development as an operational theory, has been complicated to the different political, economic and sociological perspectives. The concept of political development is an essential requirement for the achievement of democracy and autonomy. Political history of twentieth century shows that most of the countries in the world focus on political development. Different thinkers presented different concepts of political development, e.g. Lerner (1958) used it as the multi-dimensional process of social change; Almond (1960) described political development as mobilization of power; LaPalombara (1963) defined it as one aspects of building of democracy (Karimi, 2014).

The study of Lucian W. Pye is particularly important that he defines the political development as “adjustment between old patterns of life and new demands” (Karimi, 2014). Pye also presented ten different aspects of his theory of political development: “as the political prerequisite of economic development, as the politics typical of industrial societies, as political modernization, as the operation of a nation state, as administrative and legal development, as mass mobilization and participation, as the building of democracy, as stability and orderly change, as mobilization and power, as one aspect of a multi-dimensional process of social change” (Pye, 1966). He also acknowledged three fields of any country i.e; population, organization of polity and government performance; where the political development could be observed (Pye, 1966).

Huntington (1968) defined the role of institutionalization in political development. He claimed that political decay is also another possibility of institutionalization. Huntington also considered political stability as an indicator of political development, but later Huntington and Nelson (1976) argued that the political participation is a necessary element of political development. Almond and Coleman (1960) utilized structural functionalism approach for studying political development. Moor (1993) employed class analysis to defines the political development and institutionalization. Binder (1961) considers development of a country depends on its capability of political system to resolve the participation, penetration and legitimacy crises of development. Some other scholars have propensity to distinguish between modernization and political development (Mushtaq, Baig & Mushtaq, 2018).

It is suggested that “the simplest definition of democracy, rule by the people, implies participation” (Keim, 1975). Pennock sees participation as being more inclusive and more indeterminate than democracy (Pennock, 1979). LaPalombara says, “it always includes some form of widespread participation in the political process” (LaPalombara, 1974). However, he argues, voting and other forms of political participation are not limited to democracies.

There is an immense significance of governmental strength for political development and institutionalization. However, the political organizations, political development and institutionalization are closely related to each other. Rostow (1960) defines that the political development is a classical view of industrial society. Eisenstadt (1964) observes the specialization, secularization and differentiation of political culture in political development. Effectiveness, efficiency and capacity are known as main aspects of political development (Kanwal, 2017).

Apter published a study of modernization in 1965. His main proposition is that a system must achieve a balance between coercion and information. He uses the term mobilization to refer to the political system in many developing countries where power is centralized within an executive. Binder argues that political development concerns the political consequences of crossing from tradition to modernity. Before modernity is completed, the nation must pass through five crises, which include Identity, legitimacy, participation, distribution, and penetration (Apter, 1965).

6. Major Political Developments in Pakistan During 2008 to 2016

Benazir Bhutto, the twice Prime Minister of Pakistan, assassinated in an attack in Rawalpindi on 27th December 2007. The Election Commission of Pakistan announces on 2nd January 2008 that general elections are postponed from 8th January due to the assassination of Benazir Bhutto and now will be held on 18th February (The Telegraph, 2007). On the announced date, elections were held with full of fears, violence and tight security situation in Pakistan. The total 34980069 votes were casted in the elections 2008 and the turnout was around 44%. In the National Assembly, PPP got majority with 91 general seats, PML-N got 69 general seats and PML-Q got 38 general seats. PPP decide to form the governments with the coalition of PML-N, JUI-F and ANP at the centre and in provinces (Urdu Point, 2008). On 17th March 2008, the 329 newly-elected members take oath for next five years in the National Assembly which consists of 342 seats. The new prime minister Yusaf Raza Gilani was elected on 24th March 2008 (Dawn, 2013).
On 25th August 2008, the PML-N quit the coalition government after five months. The main reason behind this the issues of restoration of the judiciary and the impeachment of President Pervaiz Musharraf (The Telegraph, 2008). On 18th August, Pervaiz Musharraf resigns from his presidential office and Muhammad Mian Soomro takes over as caretaker President (The Guardian, 2008). The unilateral recommendation of Asif Ali Zardari as a presidential candidate was also a reason of variance between the two parties. Asif Zardari, the co-chairman of PPP, wins presidential election with 481 votes and takes oath as the 12th President of Pakistan (The News, 2008).

In March 2009, lawyers and political parties of opposition undertook a long march for the restoration of judiciary. The long march was successful and the reinstatement of the judges was announced by the then Prime Minister Gilani (Dawn, 2009). After the restoration of judiciary, almost all mainstream political parties work together for the 7th National Finance Commission Award. This award was introduced in 2009. The NFC Award is helped to the federal and provincial governments of Pakistan for the equal distribution of revenues and resources. The 7th NFC Award was passed by the federal government and all four provincial finance ministers on 30th December 2009. This Award was addressed as a landmark achievement for the financial autonomy of provinces and a logical modification in the policy of government to increase the share of provinces (Dawn, 2009). On 9th March 2010, President Zardari signed the bill of protection against harassment of women at workplace (Dawn, 2010).

The National Assembly passed the famous 18th amendment in the constitution on 8th April 2010. On 15th April 2010, this amendment was also passed by the Senate. On 19th April 2010, when President Asif Ali Zardari signed the amendment bill, it became an act of parliament. The most important feature of this amendment is to reduce the presidential powers and enhance the provincial autonomy. Particularly, this amendment removes the Presidential powers to dissolve the Parliament and these powers are transformed to the Prime Minister. After this amendment, President is just a ceremonial head of the state. This amendment renamed Baluchistan as Balochistan, Sind as Sindh and North West Frontier Province (NWFP) as Khyber Pakhtunkha (KP). The manuscript of the constitution is also excluding the name of General Zia-ul-Haq. The limit on third time becoming as CM and PM has been removed. The 18th Amendment in the constitution of Pakistan is a landmark achievement of all political parties specially the PPP. This amendment is eliminating the Presidential powers to dissolve the Parliament (Tribune, 2010).

PML-N and MQM quit the PPP Government, thus PPP lost the strength in the National Assembly. MQM remained part of PPP Government in Sindh to achieve maximum political advantages through bargaining tactics and polarization. PML-N was a major coalition partner of PPP but their mutual distrust and following of old practices of power politics did not let them continue together for a longer period. Resultantly, the situation emerged with these developments was tricky one to manage for the Government. In April 2011, PPP had negotiations with PML-Q and succeeded to form a coalition at the centre with PML-Q. Chaudhry Pervez Elahi became deputy Prime Minister of Pakistan without any constitutional powers (Kanwal, 2017).

The 19th amendment was assented by the President on 1st January, 2011. This amendment is reforming the judicial appointments procedure and the tribal areas of district Tank and Laki Marwat have been including to FATA. This amendment eliminates the powers of Chief Justice for the selection of judges and now the Judicial Council of Pakistan sent recommendations to the President for the appointments of judges. The high court of Islamabad was renamed as Islamabad high court. In the procedure of appointment of new judges, the Prime Minister is also a member of judicial council. This amendment also suggested that in camera sessions of the committee meetings will be held and the record shall be maintained. The Parliament and their committees will not be permitted to argue on the routine of judges. This amendment altered the following articles; 81, 175A, 182, 213 and 246. Most part of this amendment deal with the judicial appointment procedure and justice system of Pakistan (Business Recorder, 2010).

The 20th amendment was signed by the President on 28th February, 2012 and it became an act in the constitution of Pakistan. This amendment has establish a process for the set-up of a caretaker government and matters related to the chief election commissioner and other members of the ECP. According to this amendment, the ECP has the powers to appointed the caretaker PM and CM. The new chief election commissioner took oath in the office of Chief Justice of Pakistan. This amendment is specially designed for the conduct of free and fair elections in the country (Dawn, 2012; The Nation, 2017).

The new coalition Government remained busy to control the political strength of PML-N in the Punjab. Then a move was started to create new administrative units in Pakistan. The move had mustered the support of right wing
parties including JI and PML (Functional). Prime Minister Gilani was a strong supporter to constitute Southern Punjab as a separate province. PML-Q also joined the move to weaken the influence of its opponent, PML-N in the Punjab. Zardari fully supported Gilani to start discussion process with all the political parties with an outlook to make a separate province in Southern Punjab to give them political and administrative identity (Kanwal, 2017). The seven-member bench of Supreme Court declared his decision of contempt of court on 19th June 2012. According to this decision, PM Gilani was disqualified for a period of five years to not become a member of parliament. After the disqualification of PM Gillani, Raja Pervaiz Ashraf is elected as Prime Minister of Pakistan on 22nd June 2012. Throughout the period, both parties could not evolve consensus on long awaited issue of Indus water distribution between Punjab and Sindh and construction of Kalabagh Dam. Not any referendum was conducted to decide the solution of the issue as promised by the PM of Pakistan, Syed Yousaf Raza Gilani (Dawn, 2012).

The democracy in this period has been undermined by the weak organization of political parties as well as by the zero-sum-game approach to politics. Political parties continued to work as undemocratic institution with non-political power sharing pattern. Both leaders of PPP and PML-N did not pay any attention to improve internal democratic structure of the party. Political parties have identifications through their leaders who remained key decision makers and embodiment of the party itself (Kanwal, 2017).

Despite the continuity of these old patterns of party politics some positive developments are also observed during the period. For the first time, an elected Government completed its five years in the history of Pakistan. Aghaz-i-Haqooq-e-Balochistan, seventh NFC Award, passing of 18th Amendment, political reforms in Gilgit-Baltistan and allocation of special funds to Khyber Pakhtunkhawa for the development of infrastructure and increasing gas development surcharge for Balochistan were such developments which show the positive contribution of political parties to popular demands of the provinces to strengthen the federation. However, the dynamics of Balochistan in security perspective remained beyond the capacity of the Government and continued subject to security establishment for governance. Despite an unstable path and many other issues, it was a great milestone for an elected government that has completed the constitutional tenure (Kanwal, 2017).

The caretaker Prime Minister, Mir Hazar Khan Khoso took his charge on 25th March 2013. General elections 2013 was held across Pakistan on May 11, 2013. The total registered number of votes were 84207524, and 46217482 votes were polled, the turnout was 55.02%. PML-N got majority in National Assembly with 128 general seats, PPP got second majority with 33 general seats and PTI got third position with 28 seats. Nawaz Sharif was elected as new Prime Minister of Pakistan. Mamnoon Hussain, the candidate of PML-N, was won the presidential election. PTI and PAT mutually organized the Azadi March and Dharna on 13th August 2014 (Urdu Point, 2013).

The 21st amendment bill was passed by the parliament on 6th January 2015. President Mamnoon Hussain signed the amendment bill on 7th January, 2015. This amendment bill modified the Article 175 of the constitution and has also contained a sunset clause which will be expire after two years. This amendment generated military courts for the speedy trial of terrorists. The decision to amend the constitution came after the incident of Army Public School Peshawar (Tribune, 2015; Dawn, 2015).

The 22nd amendment was signed by President Mamnoon Hussain on 2nd June 2016 and it became an act in the constitution of Pakistan. After this amendment, the retired Judges and bureaucrats will also be eligible for appointment as a member of election commission or Chief Election Commissioner. Maximum age for appointment as a member of election commission (65 years) and Chief Election Commissioner (68 years) is also being fixed (Dawn, 2016; The Nation, 2016).

7. Conclusion
This paper studied the concepts of political stability, political development and political participation in general. This study also examined that most political development theorists have highlighted the significance of increasing political participation in the developmental process. Political parties are important for proper making of institutionalization and political developments in any democratic system. It helps in the change of political culture and effects political participation.
Political history of Pakistan reflects the least concern to institutionalize the political system for democratic stability and shows that political stability and institutionalization was not the priority of the past governments. Similarly, political participation and mass mobilization not seems to be institutionalized through articulating and aggregating mass interest for the consolidation of political system. However, despite the continuity of old patterns, PPP, PML-N and some other political parties showed enough maturity to save the political system through cooperation in introducing a number of reforms in the constitution, these efforts considered to strengthen the federation of Pakistan. The most significant of these is the 18th amendment to the 1973 constitution of Pakistan.

In this paper, the structure and functioning of the two governments during 2008-2016 is discussed to assess the political institutionalization in terms of political development. An elected government completed its tenure for the first time in the history of Pakistan. Five years of government of PPP completed from 2008 to 2013. After the general elections of 2013, smooth democratic transition was made possible and PML-N came into government. An overview of major political developments from 2008 to 2016, is also helped us to understand that this era was unique in the history of Pakistan.

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Impacts of Oil Discovery on Households in Uganda: A CGE Analysis

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ABSTRACT
This study analyses the impact of oil discovery on household poverty and inequality by employing a CGE model using 2007 SAM for Uganda. The oil production and export simulations show a decline in absolute poverty, poverty gaps and severity. Further, our findings showcase a positive effect of production and exports on household welfare, except for urban farm households. This study recommends for the managers of the economy to pay special attention towards injection of a reasonable portion of oil rent in sectors which positively contribute to the economy, diversify non-oil exports and above all, boost private consumption.

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JEL Classification:
C68, E16, I31, L72, O13, Q30, Q32, Q35, Q38, Q39, Q43

1. Introduction
Uganda is a landlocked country located in East Africa. It is endowed with substantial natural resources, notably sufficient fertile land, fresh water bodies, regular rainfall, mineral deposits, diverse wild life and landscape (Kamugisha, 1993). In 2006, approximately 6.5 billion barrels of recoverable oil were discovered, whereas the estimated level of production for 2020 was set at 200,000 to 230,000 barrels a day (Musisi, 2018). The government is to receive revenue from the production share, exploration licenses, royalty, investment shares, capital gains and taxes on oil companies (Vokes, 2012). This revenue is earmarked for infrastructure development, and debt servicing. The discovery is expected to generate jobs and boost GDP by 7% to 10% (Vokes, 2012).

The experiences of resource-abundant countries however, point to an alarming prospect. Studies suggest that resource-abundant economies lag behind in terms of real GDP growth (Gelb, 1988; Sachs & Warner, 1995, 2001); that the negative relationship between resource abundance and economic growth is stronger for oil, minerals, and other point-source resources than for agriculture (Sala-i-Martin & Subramanian, 2013; Stevens, 2003). Nonetheless, several countries have managed to avoid this so-called “resource curse”. Indonesia’s economy grew by an average of 4 percent per year during 1965–90, despite high oil and gas exports (Bevan, Collier, & Gunning, 1999). Botswana grew at double-digit in the 1970s and 1980s due to rapid growth of diamond exports (Acemoglu, Johnson, & Robinson, 2002). Similarly, Malaysia, Australia, and Norway, have successfully used resources to diversify their economies. Nevertheless, the impacts of natural resources discovery on the economy rests on the absorptive and managerial capacity of the government to manage large-scale investment programs from the windfall (Easterly, Islam, & Stiglitz, 2001; Ross, 2001). The massive exports surges inflow of foreign exchange...
thereby appreciating the real exchange rate rendering tradable such as agriculture uncompetitive (Rodrick, 2003).

A vast literature on oil exploitation examines primarily its impacts on the environment. For instance, Ikelegbe (2005) found pollution of land, water, flora and fauna on a massive scale which destroyed the local economy in terms of increased unemployment, crop failures and diseases. These findings are consistent with Davies and Kingston (1992) and O'Rourke and Connolly (2003). Other studies on oil extraction focus on production peaks, their impacts and mitigations. For example, Hirsch, Bezdek, and Wendling (2005) and Holland (2008) found increasing prices of oil and volatility to have negative economic, political and social consequences.


This study contributes to the existing literature on oil impacts as follows: methodologically, we employ CGE modeling, which can capture the impact economy-wide. The findings provide an added input on oil policy formulation. Finally, it highlights the impact of oil discovery in Uganda on country’s core challenges of poverty, inequality and welfare.

2. The Computable General Equilibrium Model
We use a static CGE model as suggested by Lofgren et al. (2002) to capture the inter-sectoral impacts of shocks. The model has five households; three household endowments, three types of labor, production functions, taxes and variables. It is structured based on 3 blocks: price, production and trade, and institution and constraints. The price block links variables, while the production block shows how intermediate factors are combined using Cobb-Douglas and Leontief functions. It also shows how profits are maximized. The institutions block describes the earnings, expenditures and savings of the agents. Households earn from labor, capital and land; and spend on commodities, taxes, and savings. Firms’ earnings from capital are spent on households. The government receives taxes and income from rest of the world; and spends on commodities, public service and savings. The constraints block describes how factor supply must equal factor demand, commodity supply must equal commodity demand, foreign earnings must equal foreign spending and savings must equal investment. The study uses the 2007 SAM developed by Thurlow (2008). Armington elasticities are obtained from Olarreaga et al. (2004) and population from the Statistical Abstract 2013 (UBOS, 2013).

2.1 Poverty Indices
We use the Foster-Greer-Thorbecke (FGT) index to measure poverty (Haughton & Khandker, 2009). FGT indices \( P_\alpha \), are described as

\[
P_\alpha = \frac{1}{Nz} \sum_{j=1}^{J} \left( z - YH_j \right)^\alpha
\]

where, \( N \) is the total population of households in the sample, \( J \) is the population of poor households, \( z \) is the poverty line, \( YH_j \) is the income of household \( j \), and \( \alpha \) is the parameter that distinguishes between the different indices of FGT. When \( \alpha = 0 \), we have the head count ratio, a measure of the incidences of poverty. While \( \alpha = 1 \) depicts poverty gap- a measure of poverty depth and \( \alpha = 2 \) depicts poverty severity.

2.2 Inequality Indices
We employ the generalized entropy index to measure inequality as described by Haughton and Khandker (2009). Theil indices ranges from 0 (lowest inequality) to In N (highest inequality). Arithmetically, the indices are written as:

Theil T (TT)
\[ TT = \ln \left( \frac{\sum_n N_h}{\sum_n YH_h} \right) - \ln \left( \frac{\sum_n YH_h \times \ln \left( \frac{\sum_n N_h}{\sum_n YH_h} \right)}{\sum_n YH_h} \right) \]  

(2)

Where, \( YH \) is subgroup Income, \( \sum YH \) is total population income, \( N \) is subgroup population, \( \sum N \) is total population, \( h \) is household.

Theil L (TL)

\[ TL = \ln \left( \frac{\sum_n YH_h}{\sum_n N_h} \right) - \ln \left( \frac{\sum_n N_h \times \ln \left( \frac{\sum_n YH_h}{\sum_n N_h} \right)}{\sum_n N_h} \right) \]  

(3)

“Symmetrized” Theil index can be calculated as:

\[ TS = \frac{1}{2} (TT - TL) \]

Putting values of TT and TL in the above equation

\[ TS = \frac{1}{2} \sum_n \ln \left( \frac{YH_h}{N_h} \right) \left( \frac{YH_h}{\sum_n YH_h} - \frac{N_h}{\sum_n N_h} \right) \]  

(4)

Hoover’s Index (HI)

\[ HI = \frac{1}{2} \sum_n \left| \frac{YH_h}{\sum_n YH_h} - \frac{N_h}{\sum_n N_h} \right| \]  

(5)

2.3 Welfare Measures

We use Equivalent Variations (EV) and Compensating Variations to measure welfare (CV) (Hicks (1939)). EV measures changes in wealth resulting from changes in prices, given that income remains constant and assesses the winner-loser concern when an economic policy is carried out. Further, it measures changes in the value of money resulting from price change. Described as

\[ EV_h = \left( \frac{CPIH^0_h}{CPIH^1_h} \right) \frac{EH^1_h}{EH^0_h} \]  

(6)

Where, \( CPIH^0_h \) is base year consumer price index of household \( h \), \( CPIH^1_h \) is shocked consumer price index of household \( h \), \( EH^0_h \) is base year consumption expenditure of household \( h \), \( EH^1_h \) is shocked consumption expenditure of household \( h \). CV measures changes in utility due to price changes. It denotes the additional money a household would require reaching the initial utility after a change in prices, product quality, product launch or discovery. It finds the effect of price change on household welfare. Stated as

\[ CV_h = \frac{EH^1_h - CPIH^1_h}{CPIH^0_h (EH^0_h)} \]  

(7)

Further, we look at the economy wide EV (TEV) which is arithmetically written as

\[ TEV = 100 \left( \frac{\sum_n EV_h}{\sum_n EH^0_h} \right) \]  

(8)
Similarly, the economy wide CV (TCV) is described as

\[
TCV = 100 \left( \frac{CV_h}{EH_h} \right) \tag{9}
\]

2.4 Macroeconomic Closures

In the model, markets and accounts are cleared as follows: foreign saving is fixed enabling a flexible exchange rate to clear current account. Savings are fixed too, enabling investment to adjust investment-saving account. The price of capital is also fixed, and factor price distortion adjusts to clear capital market. Labor is fully employed, and wages adjust to clear the labor market.

3. Simulation Results, Presentation and Discussion

The simulation designs are presented in Table 1. A shock of 550% is performed on both oil production and export. A large shock as such is required given the small proportion of oil in the 2007 SAM for Uganda.

**Table 1: Simulation Scenarios**

<table>
<thead>
<tr>
<th>Simulation</th>
<th>Base Scenario</th>
<th>Share in SAM</th>
<th>Forecasted New Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulation 1</td>
<td>Production</td>
<td>3.83%</td>
<td>3.83% x 550% = 21.1%</td>
</tr>
<tr>
<td>Simulation 2</td>
<td>Export</td>
<td>7.70%</td>
<td>7.70% x 550% = 42.4%</td>
</tr>
</tbody>
</table>

In simulation 1, a shock on the production of oil is performed, which is only 3.83% of the total production as reported in 2007 SAM for Uganda. A shock of 550% raises the level of oil production to 21.1%, which portrays the picture in most resource-abundant economies. In second simulation a shock on oil exports is performed, which is 7.7% of the total exports. Hence, an increase of 550% elevates it to 42.35% of total exports. This represents the real trend in poor oil rich nations, where oil accounts for the bulk of total exports. The results of these shocks are presented in Tables 2 through 6.

3.1. Impact on Household Income

The results of income for various types of households are presented in Table 2. Except for rural farm households, where income increased from Sh. 10,400,000.00 to Sh. 10,718,240.00, other households have their incomes declining across all simulations. In simulation 1, income of rural farm households increases due to a surge in agriculture and diversity of its earnings. While, the decline in incomes of other households may be due to relative shares in declining sectors. In terms of simulation 2, the results show how exports increased rural incomes via increase in agricultural exports and general economic improvements, as suggested by Murshed (1997).

**Table 2: Impact on Household Income**

<table>
<thead>
<tr>
<th>Base</th>
<th>Simulation 1</th>
<th>Simulation 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHD-R-F</td>
<td>10,400,000.00</td>
<td>10,718,240.00</td>
</tr>
<tr>
<td>HHD-R-NF</td>
<td>2,869,675.84</td>
<td>115,647.94</td>
</tr>
<tr>
<td>HHD-K-NF</td>
<td>3,666,723.61</td>
<td>151,435.69</td>
</tr>
<tr>
<td>HHD-U-F</td>
<td>1,570,701.05</td>
<td>69,424.99</td>
</tr>
<tr>
<td>HHD-U-NF</td>
<td>1,967,955.47</td>
<td>85,409.27</td>
</tr>
</tbody>
</table>

Note: HHD-R-F is rural farm households, HHD-R-NF is rural nonfarm households, HHD-K-NF is Kampala nonfarm households, HHD-U-F is urban farm households and HHD-U-NF is urban nonfarm households

3.2. Impact on Household Poverty

The impact of oil on various sectors, macroeconomic variables and households have greater bearing on both poverty and inequality. This is so because of their impact on household income and expenditure patterns. The estimated impact of oil discovery on household poverty is presented in Table 3. In simulation 1, oil production reduces absolute poverty (P0: 31.43% to 28.91%), poverty gap (P1: 14.43% to 13.28%) and poverty severity (P2: 6.78% to 6.24%). Similarly, in simulation 2, oil export decreases absolute poverty (P0: 31.43% to 26.71%), poverty...
gap (P1: 14.43% to 12.27%) and poverty severity (P2: 6.78% to 5.76%). The reductions in poverty is due to improvements in sectors, macro economy and incomes. This result is consistent with Idemudia (2009) study on oil and poverty in Nigeria.

Table 3: Impact on Household Poverty

<table>
<thead>
<tr>
<th></th>
<th>Base</th>
<th>Simulation 1</th>
<th>Simulation 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P0</td>
<td>0.31426</td>
<td>0.2891192</td>
<td>0.267121</td>
</tr>
<tr>
<td>P1</td>
<td>0.144329</td>
<td>0.13278268</td>
<td>0.12267965</td>
</tr>
<tr>
<td>P2</td>
<td>0.067801</td>
<td>0.06237692</td>
<td>0.05763085</td>
</tr>
</tbody>
</table>

Note: P0 is absolute poverty, P1 is poverty gap, and P2 is poverty severity.

3.3. Impact on Household Income Inequality

The results of our simulations on income inequality are presented in Table 4. In simulation 1, there is a decline in income inequality; GINI (0.340863 to 0.31359396), Theil L (0.276654 to 0.25452168), Theil T (0.232254 to 0.21367368), Theil S (0.21684 to 0.1994928) and Hoover index (0.247102 to 0.22733384), and improvements in household welfare; TL (Sh.471,251.501 to Sh.508,951.6211), HI (Sh.453,745.487 to Sh.490,045.126) and TT (1.41E-06 to 1.52122E-06).

Table 4: Impact on Inequality

<table>
<thead>
<tr>
<th>Indexes</th>
<th>Base</th>
<th>Simulation 1</th>
<th>Simulation 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gini</td>
<td>0.340863</td>
<td>0.31359396</td>
<td>0.289734</td>
</tr>
<tr>
<td>Theil L</td>
<td>0.276654</td>
<td>0.25452168</td>
<td>0.235156</td>
</tr>
<tr>
<td>Theil T</td>
<td>0.232254</td>
<td>0.21367368</td>
<td>0.197416</td>
</tr>
<tr>
<td>Theil S</td>
<td>0.21684</td>
<td>0.1994928</td>
<td>0.184314</td>
</tr>
<tr>
<td>Hoover's Index</td>
<td>0.247102</td>
<td>0.22733384</td>
<td>0.210037</td>
</tr>
<tr>
<td>Welfare using TL</td>
<td>471251.5</td>
<td>508951.6211</td>
<td>541939.2</td>
</tr>
<tr>
<td>Welfare using HI</td>
<td>453745.5</td>
<td>490045.126</td>
<td>521807.3</td>
</tr>
<tr>
<td>Welfare using TT</td>
<td>1.41E-06</td>
<td>1.52122E-06</td>
<td>1.62E-06</td>
</tr>
</tbody>
</table>

The above results are contrary to the findings of Karl (1999), Stilwell (2009) and Yates (2009). They argue that oil booms tend to produce poverty, inequality and political crises. Similarly, in simulation 2, inequality declines, and welfare rises. The decline in inequality and rise in welfare is due to the surge in economic sectors, notably agriculture sector. The results are consistent with the study of Moradi (2009) on oil and inequality in Iran.

3.4. Impact on Household Welfare

Table 5 presents the equivalent variations, portraying individual welfare of households. Apart from urban farm households, all simulations have a positive effect on welfare; which is consistent with Caselli and Michaels (2013). According to equivalent variation, simulation 1 suggests that to keep welfare at its earlier level, the households whose welfare improved should give up their income resulting from this rise. Hence, rural farm should give up Sh.18864.10, rural nonfarm Sh.282.18, Kampala nonfarm Sh.489.14 and urban nonfarm Sh.143.49. Contrarily, urban farm households are affected by price fall, thus they should be offered Sh. 68,961.92 to retain their welfare. In simulation 2, households with positive values of EV should give away the respective amounts to maintain their welfare and urban farm households should be extended an equivalent amount to retain their welfare.

Table 5: Equivalent Variation of Households

<table>
<thead>
<tr>
<th></th>
<th>Simulation 1</th>
<th>Simulation 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHD-R-F</td>
<td>18,864.10</td>
<td>86,579.58</td>
</tr>
<tr>
<td>HHD-R-NF</td>
<td>282.18</td>
<td>261.03</td>
</tr>
<tr>
<td>HHD-K-NF</td>
<td>489.14</td>
<td>488.70</td>
</tr>
<tr>
<td>HHD-U-F</td>
<td>-68,961.92</td>
<td>-53,534.39</td>
</tr>
<tr>
<td>HHD-U-NF</td>
<td>143.49</td>
<td>110.49</td>
</tr>
</tbody>
</table>

Note: HHD-R-F is rural farm households, HHD-R-NF is rural nonfarm households, HHD-K-NF is Kampala nonfarm households, HHD-U-F is urban farm households and HHD-U-NF is urban nonfarm households.
The CV index in Table 6 suggests that in simulation 1; Sh.29,582.34, Sh.397.83, Sh.640.57 and Sh.228.90 compensate rural farm, rural nonfarm, Kampala nonfarm and urban nonfarm households respectively for the rise in prices to enjoy the same welfare as before. Conversely, urban farm households should give up Sh.68,892.50 to remain at the same welfare as before the decline in price. Similarly, according to simulation 2; HHD-R-F, HHD-R-NF, HHD-K-NF, and HHD-U-NF should be given the amount in Table 6 as compensation for the price rise effect, in order for them to enjoy the same welfare as before the price increase; while HHD-U-F should part with the amount in Table 8 to click back to the original welfare. Taking the economy as a whole, the values of EV and CV are depicted in Table 9.

<table>
<thead>
<tr>
<th>Table 6: Compensating Variation of Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulation 1</td>
</tr>
<tr>
<td>HHD-R-F</td>
</tr>
<tr>
<td>HHD-R-NF</td>
</tr>
<tr>
<td>HHD-K-NF</td>
</tr>
<tr>
<td>HHD-U-F</td>
</tr>
<tr>
<td>HHD-U-NF</td>
</tr>
</tbody>
</table>

**Note:** As for Table 5.

Table 7 shows that, individuals in the country are better off in simulation 1, while opposite in Simulation 2. For example, with respect to TEV in Simulation 1, it is implied that individuals are better off and so must be given Sh.9836.60 to bring them to the initial welfare. In Simulation 2, individuals are worse off and therefore an amount of Sh.6781.08 must be taken away from them to maintain the original welfare. Regarding TCV in Simulation 1, individuals are required to give up Sh.7608.57 because they are better off than before, while in Simulation 2, they should be given Sh.9011.31 because they are worse off than before.

<table>
<thead>
<tr>
<th>Table 7: Economy-wide Equivalent and Compensating Variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulation 1</td>
</tr>
<tr>
<td>TEV</td>
</tr>
<tr>
<td>TCV</td>
</tr>
</tbody>
</table>

**Note:** TEV is Economy-wide Equivalent Variation, TCV is Economy-wide Compensating Variation.

5. Sensitivity Analysis

We perform sensitivity experiments before the conclusion on results to ascertain their robustness which has been accomplished by changing the values of elasticities as shown in Table 8. We find the effect of changes in elasticities close to zero, leading us to conclude that the results are appropriate for use in our model (see Tables A1 and A2, Appendix A).

<table>
<thead>
<tr>
<th>Table 8: Simulation Parameters for Sensitivity Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
</tr>
<tr>
<td>SA0</td>
</tr>
<tr>
<td>SA1</td>
</tr>
<tr>
<td>SA2</td>
</tr>
<tr>
<td>SA3</td>
</tr>
<tr>
<td>SA4</td>
</tr>
<tr>
<td>SA5</td>
</tr>
<tr>
<td>SA6</td>
</tr>
<tr>
<td>SA7</td>
</tr>
<tr>
<td>SA8</td>
</tr>
</tbody>
</table>

**Note:** SA is ‘sensitivity analysis’. CET is ‘constant elasticity of transformation’.

6. Conclusions and Recommendations

The findings of this study show that oil production and exports reduce absolute poverty, severity and vulnerability. The obvious cause for such results is discovery having a spillover effects on the incomes of rural households, who
account for the largest percentage of poor worker-force. A surge in the production of oil reduces household inequality, as measured by the Gini coefficient and other entropy measures; while improving the household welfare. The results show that the poor can participate in the oil production process, though skilled labor and enormous investment are required for it; thus, leading to reduced inequality. On the other hand, oil exports equally reduce and enhance income inequality and welfare respectively. This is basically due to an increase in consumption of oil, which is a component of absorption inequality, as measured by mean expenditure. Further, the income derived from oil absorption and export increase household consumption in terms of imports, which may lead to an increase in overall expenditures. Therefore, since inequality in the model was computed using household expenditure, an increase in expenditure on domestic and import products mirrored a reduction of inequality in the simulations. Obviously, with a reduction in inequality and poverty, welfare must equally improve as shown in the results.

Overall, we look at three major stakeholders: the government, households and the international community. To have a significant impact on poverty and inequality, the government should promote investment in sectors that surge because of oil boom such as agriculture, industry, health and education; while some resources must be allocated to manufacturing and services to turn around their plight resulting from the boom to create jobs and expand opportunities. The households, while making their investments, must diversify and improve on the volume and quality of their exports, cut consumption to boost private investment to escape from the menace of poverty and inequality. Finally, the global community may share their expertise and experiences in oil policy formulation, managing Dutch disease, and natural resource curse for this new wealth to benefit the country, particularly the poor masses.

References


Appendix A.

### Sensitivity Analysis Results

#### Table A1. Effects of Sensitivity Experiments on National Income Accounts (% change from base)

<table>
<thead>
<tr>
<th></th>
<th>SA0</th>
<th>SA1</th>
<th>SA2</th>
<th>SA3</th>
<th>SA4</th>
<th>SA5</th>
<th>SA6</th>
<th>SA7</th>
<th>SA8</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPFC</td>
<td>-1.92E-09</td>
<td>-1.31E-09</td>
<td>-1.98E-09</td>
<td>-1.06E-09</td>
<td>-1.21E-09</td>
<td>-1.40E-09</td>
<td>-2.15E-10</td>
<td>-1.57E-09</td>
<td>-1.10E-09</td>
</tr>
<tr>
<td>GDPMP1</td>
<td>9.10E-14</td>
<td>2.78E-10</td>
<td>4.97E-11</td>
<td>4.36E-10</td>
<td>8.04E-11</td>
<td>1.56E-10</td>
<td>5.12E-10</td>
<td>1.00E-09</td>
<td>5.90E-10</td>
</tr>
<tr>
<td>GDPMP2</td>
<td>-1.74E-09</td>
<td>-1.30E-09</td>
<td>-1.81E-09</td>
<td>-8.59E-10</td>
<td>-1.05E-09</td>
<td>-1.39E-09</td>
<td>-2.83E-11</td>
<td>-1.40E-09</td>
<td>-1.07E-09</td>
</tr>
<tr>
<td>INVEST</td>
<td>-1.58E-08</td>
<td>-6.09E-09</td>
<td>-1.46E-08</td>
<td>-1.27E-08</td>
<td>-1.38E-08</td>
<td>-6.26E-09</td>
<td>-1.24E-08</td>
<td>-1.67E-08</td>
<td>-2.21E-09</td>
</tr>
<tr>
<td>EXPORT</td>
<td>2.92E-10</td>
<td>2.80E-10</td>
<td>7.12E-10</td>
<td>4.59E-10</td>
<td>-4.25E-10</td>
<td>5.17E-10</td>
<td>-9.79E-10</td>
<td>-1.95E-10</td>
<td>-1.70E-10</td>
</tr>
<tr>
<td>NITAX</td>
<td>-1.53E-10</td>
<td>-1.27E-09</td>
<td>-2.83E-10</td>
<td>9.50E-10</td>
<td>3.78E-10</td>
<td>1.30E-09</td>
<td>1.63E-09</td>
<td>1.58E-10</td>
<td>7.53E-10</td>
</tr>
<tr>
<td>PRVCON</td>
<td>4.03E-09</td>
<td>-3.38E-10</td>
<td>3.55E-09</td>
<td>4.44E-09</td>
<td>4.35E-09</td>
<td>-3.59E-10</td>
<td>5.07E-09</td>
<td>4.64E-09</td>
<td>-9.85E-10</td>
</tr>
</tbody>
</table>

#### Table A2. Effects of Sensitivity Experiments on Household Income (% change from base)

<table>
<thead>
<tr>
<th></th>
<th>SA0</th>
<th>SA1</th>
<th>SA2</th>
<th>SA3</th>
<th>SA4</th>
<th>SA5</th>
<th>SA6</th>
<th>SA7</th>
<th>SA8</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHD-R-F</td>
<td>3.06E-10</td>
<td>-2.67E-10</td>
<td>2.13E-10</td>
<td>5.68E-10</td>
<td>4.52E-10</td>
<td>-2.81E-10</td>
<td>8.15E-10</td>
<td>4.69E-10</td>
<td>-3.05E-10</td>
</tr>
<tr>
<td>HHD-R-NF</td>
<td>-4.03E-10</td>
<td>-3.71E-10</td>
<td>-4.32E-10</td>
<td>-1.62E-10</td>
<td>-1.98E-10</td>
<td>-3.97E-10</td>
<td>8.23E-11</td>
<td>-2.90E-10</td>
<td>-3.37E-10</td>
</tr>
<tr>
<td>HHD-K-NF</td>
<td>-4.13E-10</td>
<td>-3.80E-10</td>
<td>-4.43E-10</td>
<td>-1.66E-10</td>
<td>-2.04E-10</td>
<td>-4.07E-10</td>
<td>8.39E-11</td>
<td>-2.97E-10</td>
<td>-3.46E-10</td>
</tr>
<tr>
<td>HHD-U-F</td>
<td>-4.42E-10</td>
<td>-5.64E-10</td>
<td>-5.07E-10</td>
<td>-5.78E-11</td>
<td>-1.25E-10</td>
<td>-6.03E-10</td>
<td>3.44E-10</td>
<td>-2.42E-10</td>
<td>-5.37E-10</td>
</tr>
<tr>
<td>HHD-U-NF</td>
<td>-4.34E-10</td>
<td>-4.03E-10</td>
<td>-4.66E-10</td>
<td>-1.74E-10</td>
<td>-2.12E-10</td>
<td>-4.31E-10</td>
<td>9.26E-11</td>
<td>-3.11E-10</td>
<td>-3.67E-10</td>
</tr>
</tbody>
</table>
An Analysis of Existence of Localization for the Implementation of Triplization in Higher Education Pakistan at Policy and Practice Level

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ARTICLE DETAILS

ABSTRACT

Policymakers and academe around the globe are deeply concerned about maximizing benefits of localized aspect of higher education for the development of an individual local community. Considering benefits of localization in higher education, this study examined the existence of localization for the implementation of triplization at policy and practice level. With problem statement in alignment of the aims of National Education Policy Pakistan 2009, this research study is particularly aimed to analyze present state of higher education in Pakistan in terms of focus on local networking, technological, economic, social, political, cultural, and learning localization, decentralization to the local site level, indigenous culture, community needs and expectations, local involvement, collaboration and support, local relevance and legitimacy, community-based needs and characteristics, social norms and ethos as the key characteristics of localization referred to by Cheng in his theory of triplization. A mixed method exploratory approach was acquired to meet the objectives of the study. Sample of the study were policy and provision documents for the content analysis and 1429 students and 140 faculty members from 15 universities of Punjab and KPK as the respondents of survey. Findings at both policy and practices in aspects of HE revealed an agreement on the presence of localization at the institutional process level; localization of curriculum reflected inadequacy in policies whereas practices too, reflect an average level presence; localization of student and learning occurred in policies and practices at above average level whereas localized teacher and teaching aspect is catered to some extent in policies and provisions and precise average presence is responded by survey respondents.

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1. Introduction
There is an increasing international concern about outcomes of globalization upon indigenous and national development in all countries but with a particular focus on developing countries (Beeson, 2014; Hall & Fenelon, 2015). The prime concern here is to maximize the benefits of localization and minimize the drawbacks of overwhelming of globalization for development of a local community (Commers, 2016; Relph, 2016).
Localization is referred to as transfer, adaptation and development of related values, knowledge, technology and behavioral norms from and to the local context as mentioned by Cheng (2000) in his theory of triplization. Cheng (2000) further argued that globalization in education is one of the most significant features of new millennium as well as localization and individualization too needs focus in educational reforms. All the three processes can be given a composite term named as triplization process (i.e., triple + izations) that can be used to go by the side of varied setting for tertiary students. Major identified characteristics of localization are networking in local setting; advancement in indigenous culture; fulfillment of community needs and requirements; adaptation of social, economic, political, cultural and technological learning interventions from outer world to local community; inter-institutional collaborations; community support; local involvement; local legitimacy and support and the concern for social norms and culture (Cheng, 2000; 2006; 2016). Localization in the higher education can bring in diverse resources and academic riches from local community and around the world to support higher education. Higher education in Pakistan now days, is a targeting the production of quality human resources for national capacity building (Siddiqui & Khan, 2016), a focus on higher education sector for building flagship national capacity and setting future direction of a country invites localization to be worked on.

The proposed study has following objectives:

- To spot the existence of localization in current educational policies and provisions for higher education in Pakistan.
- To spot the existence of localization within the current educational practices of HEC and universities in Pakistan.

2. Research Methodology

This research was concurrent equal status (concurrent) mixed method design (Creswell, 2007; 2012). Qualitative part of study used a summative approach to qualitative content analysis of 43 policies, documents, and charters of sampled 15 HEC approved universities, followed by two surveys for quantitative aspects of study. It started with identification and quantification of identified words in text with an aim of understanding the related use of themes (GrBich, 2012), referred to as manifest content analysis (GrBich, 2012; Hsieh & Shannon, 2005), and leading to latent content analysis which is referred to as process that interprets and discovers underlying meanings of the words (GrBich, 2012; Hsieh & Shannon, 2005). For quantitative part of study, two survey questionnaires; questionnaire from 1429 students and questionnaire from 140 teachers served as tools for analysis of practices of HEC and universities regarding existence of localization in practices of universities.

3. Theoretical background and Literature Review

Localization is taking strengths and advantages from the internal and external environments and maximizing opportunities from the local contexts to achieve the goal of higher education (Cheng, 2003). Cheng (2000) in his theory of triplization emphasized that education should create and maximize opportunities for teaching, learning, and institutional development from internal and external environments and local communities (Cheng, 2000; Cheng 2001; Pachi & Santos 2013). Figure 1 depicts detailed conception and characteristics of localization along with its implications for higher education.

Figure 1 presents the conceptions and characteristics in all four processes of higher education, namely, student and learning; teacher and teaching; curriculum and institutional environment (Bustillo, 2014; Cheng, 2001; 2003). Furthermore, the detail of every individual process in terms of localization is given below.

3.1 Localized Tertiary Learning

Learning process of every student can be boost up with national and international resources, support and associations at varied places inside or outside HEIs, in local settings. The outlook and gained by students will be a combined experience from several national and international institutions (Cheng, 2000; 2003; Education and Manpower Bureau, 1998; Ryan, Scott, Freeman, & Patel, 2000).
Figure 1: Conception and Characteristics of Localization

<table>
<thead>
<tr>
<th>Triplification</th>
<th>Conceptions and Characteristics</th>
<th>Implications for Higher Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localization</td>
<td>Transfer, adaptation, and development of related values, knowledge, technology, and behavioral norms from to the local contexts: Local Networking, Technological, Economic, Social, Political, Cultural, and Learning Localization, Decentralization to the Local Site Level, Indigenous Culture, Community Needs and Expectations, Local Involvement, Collaboration and Support, Local Relevance and Legitimacy, Community-based Needs and Characteristics, Social Norms and Ethics</td>
<td>To maximize the education relevance to local developments and bring in community support and resources, local partnership, and collaboration in tertiary learning, teaching and research; e.g., Community Involvement, Public- Institutional Collaboration, Institutional-based Management &amp; Accountability, Inter-institutional Collaboration, Community-related Curriculum, Curriculum Content on Technological, Economic, Social, Political, Cultural, and Learning Localization</td>
</tr>
</tbody>
</table>

3.2 Localized Tertiary Teaching
Localized aspect of teaching asserts that teachers should improve teaching learning process in manner that they can utilize all academic resources locally and globally, can fetch national and international support in networked environment to enhance their contribution in learning process. Regional and global outlook of teachers get enhanced through their involvement in national or international research programs beyond their institutions (Cheng, 2000; 2003). Furthermore, their teaching is a type of networked teaching through mutual sharing and inspiration.

3.3 Localized Tertiary Curriculum
Localization reveals that the curriculum also includes local resources, materials, and concerns to ensure the local relevance and community involvement for maximizing opportunities for students’ localized learning. Community-based curriculum is one typical practice to increase the local relevance and support in the field (Breslow, 2015).

3.4 Localized Tertiary Institutions
New century paradigm shifts assume that educational environment must have self-initiative and autonomy of educational institutions to improve a self-learning cycle in the context of globalization and localization in education (Cheng, 1996). The fostering of local knowledge at institutional level can also be considered as the growth of institutional knowledge because this knowledge is generated, accumulated and owned by the educational institution through the institutional thinking, planning, action, experience, evaluation and reflection.

4. Findings of the Qualitative Aspects of the Study
The review of policies and provisions for higher education in Pakistan regarding the existence of localization reflected enough evidence to support localization. Themes and sub themes mentioned in Table 1 were traced in the documents through content analysis. Findings of manifest content analysis reflected that almost all the indicators of localization exist at policy level with following frequency.

The results of latent content analysis of abovementioned aspects of localization in Figure 1 can be viewed as evidence of existence of themes of localization in policies and provisions for higher education. The proceeding paragraphs present documentary evidences for themes such as local networking; technological, economic, social, political and learning localization; decentralization of higher education to the local site level; local involvement collaboration and support; community needs and expectations and bench marking with in all processes of higher education.

Table 1: Existence of themes and sub themes on localization

<table>
<thead>
<tr>
<th>Localization in HE themes</th>
<th>Sub themes</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local networking</td>
<td>Local networking</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Internet</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Local intellectual sharing</td>
<td>20</td>
</tr>
</tbody>
</table>
4.1 Local Networking
Different policies and provisions for HEC in Pakistan reflect existence of local networking within HEIs in the domains of all three sub themes. For instance, vision and mission of HEC in MTDF 2005-10, 2011-15 confirms that Pakistan Education and Research Network (PERN) is a reality, connecting almost all universities, and when fully deployed will connect all of the public and private sector universities of Pakistan to each other. The vision 2025 is to provide “LAN/WAN facilities at universities and to computerize all departments of the universities so that students and faculty members can access internet and intranet resources for the education and research purposes”.

MTDF 2005-2010 exhibits that “Higher Education Commission has initiated a video conferencing…, so that the students of such universities, who are not in a position to benefit from high profiled teachers, may have the opportunity to learn from them, share their ideas and views to enhance their productivity for local intellect sharing.”

4.2 Technological, Economic, social, Political, Cultural, and Learning Localization
Evidences for curriculum content in local languages were only traced in provisions for higher education in Khyber Pakhtunkhwa Regional Languages Authority Act, 2012 which says to, “Consider ways and means for promotion of regional languages and to make all necessary arrangements in this regard for teaching, promotion and use of regional languages. Local socio-economic compatibility can be traced in various stances. NEP (2009) states, “Research linked to local industry, commerce; agriculture etc. shall be encouraged to support these areas through indigenous solutions and create linkages between academia and market.” Keeping in view the importance course of Information Communication Technology, it was introduced in all disciplines with an aim in (Syllabus for ICT in Education, 2012) that “this course will help students and teachers to understand use and apply a range of Information Communications Technologies (ICTs).

4.3 Decentralization of Higher Education
Decentralization took place when constitution (18th amendment) Act, 2010 transferred legal and administrative authorities from federal control to the provinces for higher education by enhancing provincial autonomy of HEIs. It exhibits that “Universities, despite depending on government funding to manage their affairs enjoy both substantive and procedural autonomy to a large extent. In many cases senate/ or syndicate help universities reach at any meaningful decision”. MTDF 2005-2010 states “Campuses of existing universities shall be established in second and third tier cities to facilitate the spread of higher education” for addressing regional disparities and ensuring flexibility of available options for higher education. Sensitive to the importance of local needs and resources, locally produced curriculum may serve an engine for bringing in the global intellect. Annual Report of HEC (2013) reflects that, “Realizing the dearth of locally produced reference reading material and textbooks at graduate and the post-graduate level, a project on “Monograph and Textbook Writing” has been developed with the view to encourage authorship amongst university professors and researchers.”

4.4 Local Involvement, Collaboration and Support
The Higher Education Commission is supporting initiatives of promotion of local industry, protection of local heritage, provision of education and training addressing local needs, and industrial sector development. NEP 2009 pinpoints that “specific program is designed to push universities/HEIs to integrate their research and teaching
activities to address local issues, by community involvement, to provide on ground solutions. Different types of local alliances among educational institutions and market or industry are observed during process of review. MTDF 2005-10, 2011-15 exhibit that “The Higher Education sector is a major binding force for universities and colleges through local, regional, national and international partnerships to support socio-economic regeneration and growth”. Pakistan University Sports Board is set for participation of students in the National Championships and Games. It is to: “encourage, promote and develop Sports in Universities of Pakistan. To organize and hold different sports activities in order to provide opportunities for healthy competition and develop a sense of sportsman spirit in students of Universities of Pakistan.

4.5 Community needs and Expectations
Vision of HEC Pakistan considers “institutions of higher learning as knowledge repositories whose faculty and students accrue knowledge and apply it to understand and address “local” issues.” It was found out during review of MTDF-I and II that the support of high quality 4-year undergraduate programs in Arts, Humanities and Social Sciences are very central to the promotion and growth of the core issues of communication, culture, history and religion. MTDF 2011-15 reflects that the “Institutions of higher learning have a responsibility to understand, preserve and promote this culture and heritage”. NEP 2009 and MTDF 2011-15 depict that “… universities over the world serve as local resource centers providing training and support to industries along with trained manpower. When combined with the spirit of entrepreneurship, these academic institutions can change the economic destiny of entire regions, as well as the country”. Over the past few decades, issues of ethnic and language diversity have moved from their peripheral positions to become central concerns of institutions of higher education. NEP, 2009 states that “As the national educational systems also evolve as a response to particular demands of distinct ethnic, social, economic, religious, political groups and communities, there is always room for diversity. This diversity can lend strength to the educational outcomes, especially in a federation like Pakistan, if this does not work at cross purpose with the harmonizing uniformities”.

4.6 Benchmarking
To stay competitive among other institutions and to learn from each other by sharing aspects of good practice, HEC emphasize benchmarking in MTDF 2005-10, MTDF 2011-15, NEP 2009 and Annual reports. Quality Assurance Authorities were setup by the HEC in MTDF 2005-10, MTDF 2011-15, NEP 2009 to “develop practical guidelines and policies for establishing Quality Enhancement Cells, for monitoring and evaluation of the educational activities and uniformity of pace and standards across country.”

So, at the policy level, the themes identified for localization mark their concrete presence within policies and provisions, but required force and direction still needs point of attention. Among all the indicators of localization, decentralization of the HEIs to local site level with institutional based management and accountability, local campuses, internet services (LAN), provision of PERN by HEC to all universities and DAI’s bring an impression of localization of institutional aspect. Student and learning, teacher and teaching and the most particularly curriculum aspects of higher education need a deeper focus to make higher education relevant to the local needs.

5. Findings of the Quantitative Aspects of the Study
Responses of students were obtained through questionnaire from students about the localized aspects of higher education whereas teachers responded about the same in responses from the teachers.

Table 2 represents responses about localized aspect of higher education institutions in questionnaire from students and teachers in comparison. Questions are instrumented on the 5-point Likert scale between strongly disagree to strongly agree.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Students</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilization of locally available teachers</td>
<td>3.7</td>
<td>3.2</td>
</tr>
<tr>
<td>Local alliances for collaborative learning/teaching</td>
<td>3.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Provision of research facilities at local level</td>
<td>3.5</td>
<td>3.1</td>
</tr>
<tr>
<td>Collaborative researches on local issues/problems</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Academic credit sharing among local universities</td>
<td>2.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Existence of Campuses of other national universities</td>
<td>3.2</td>
<td>3.5</td>
</tr>
<tr>
<td>Inter/intra provincial student enrollment</td>
<td>3.7</td>
<td>3.9</td>
</tr>
</tbody>
</table>
Mean values of localized aspect of institution as mentioned above in section questionnaire from students of Table 2 fall between mean 4.0 (SD=1.1) as agreement towards following of national standards and bench marks till mean 2.7 (SD= 0.8) between disagreement and a no idea note for academic credit sharing among local universities. The responses for utilization of locally available teachers, with mean 3.7 (SD=1.1), inter/intra provincial student enrollment with mean 3.7 (SD=1.4) and offering of indigenous scholarships with mean 3.7 (SD=1.3) went towards slight agreement. Provision of platforms for local research sharing was responded with mean 3.6 (SD=1.2) and provision of research facilities at local level with mean 3.5 (SD=1.2) reflect a very slight inclination towards agreement. Local alliances for collaborative learning with mean 3.4 (SD=1.3), collaborative researches on local issues/problems with mean 3.2 (SD=1.2) and existence of campuses of other national universities with mean 3.2 (SD=1.4) exhibit very low tendency of agreement towards the aspect of localization in the institutional process of higher education. However, total mean of localized institution aspect is 3.4 (SD=0.7) which validate the responses very slightly towards localization of institutions.

Mean values of localized aspect of institution as mentioned in section of questionnaire from teachers of Table 2 fall between 3.9 (SD=1.0) as nearly an agreement towards inter/intra provincial student enrollment till mean of 2.7 (SD=1.4) for academic credit sharing between disagreement and undecided note. Existence of campuses of other national universities with mean 3.5 (SD=1.0) and offering of indigenous scholarships, following of national standards and bench marks along with provision of platform for local research sharing; all with mean 3.5 (SD=0.8) demonstrate a middle road somewhere between undecided note and agreement. Utilization of locally available teachers with mean 3.2 (SD=1.1) and collaborative researches on local issues/problems also follow the pattern of a low tendency from being indecisive to agreement. Whereas local alliances for collaborative teaching and research facilities at local each with mean 3.1 (SD=1.0) reflected just an inclination towards agreement. However, total mean of the localized institution aspect is 3.3 (SD=.6) which corresponds more the indecisive approach of respondents towards localization of institutions at the level of higher education than the agreement.

Table 3 below embodies responses about localized aspect of curriculum at level of higher education. Questions in this section are instrumented on yes and no basis to mark localization of curriculum.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Students</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>locally produced curriculum contents</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Curriculum translated into local languages</td>
<td>43.5</td>
<td>56.4</td>
</tr>
<tr>
<td>Locally developed curriculum on technology</td>
<td>20.9</td>
<td>79.1</td>
</tr>
<tr>
<td>The curriculum that addresses local social needs</td>
<td>43.4</td>
<td>56.6</td>
</tr>
<tr>
<td>Curriculum on community related cultural norms</td>
<td>47.2</td>
<td>52.8</td>
</tr>
<tr>
<td>Inclusion of dimensions of local politics</td>
<td>47.5</td>
<td>52.5</td>
</tr>
<tr>
<td>Curriculum oriented to locally available jobs</td>
<td>38.7</td>
<td>61.3</td>
</tr>
<tr>
<td></td>
<td>69.7</td>
<td>30.3</td>
</tr>
</tbody>
</table>

The localized aspect of curriculum in questionnaire from students has statements expressing localized curriculum process of higher education. Following responses were recorded as in Table 3. Towards agreement regarding themes of localized aspects of curriculum at the level of higher education, the highest response rate was 69.79% in favor of curriculum which is oriented to locally available jobs. While 52.8% favored curriculum that addresses local social needs and 52.5% agreed on the curriculum which embodies community related cultural norms.

On contrary, the rate of response for curriculum contents produced locally was 43.6%, followed by a response rate 43.4% for locally developed curriculum on technology. Inclusion of dimensions of local politics received 38.7% responses and curriculum translated into local languages was favored by only 20.9% respondents of Responses from students. These responses do not mirror presence of localization of curriculum in full swing.
The localized aspect of the curriculum in questionnaire from teachers has statements pointing towards localized curriculum process of higher education to be explored from teachers. The following responses are recorded as reflected from Table 3.

Towards agreement regarding themes of localized aspects of curriculum at the level of higher education, the highest response rate was 68.6% in favor of the locally available jobs. While 50% conveyed the presence of curriculum that is related to community associated cultural norms.

On contrary, response rate for curriculum that addresses local social needs was 40%, locally produced curriculum contents and curriculum translated into local languages received 39.3% responses each. The locally developed curriculum on technology was responded in favor by 29.3% while curriculum that included the dimensions of local politics could have 15.7% reactions by responses of teachers. These responses reflect a low level of localization of curriculum.

This segment presents responses in Table 4. Questions in this section are instrumented on 5-point rating scale between not at all to a great extent.

### Table 4: Localized aspects of student and learning and teachers and teaching

<table>
<thead>
<tr>
<th>Statements</th>
<th>Students</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Sharing of local intellect via video conference/skype/media</td>
<td>3.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Local alliances for learning</td>
<td>3.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Opportunities of education/professional grooming locally</td>
<td>3.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Useful member of society</td>
<td>4.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Overall Mean and SD</td>
<td>3.5</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Mean values of localized aspect of student and their learning process of higher education as mentioned above in Table 4, section questionnaire from students fall between 4.1 (SD=1) as agreement of feel for being useful member of society till mean 3.0 (SD=1.4) for sharing local intellect in the process of learning to a medium level between agreement and non-agreement. Whereas opportunities of education locally with mean of 3.8 (SD=1.0) and local alliances for learning with a mean of 3.2 (SD=1.1), are responded with moderate feedback. However, total mean of the items about the localized student process is 3.5 (SD=0.7) which confirms the responses more towards localization of student process in agreement to some extent.

Mean values of localized aspect of teacher and teaching process of higher education as mentioned above in Table 4, section questionnaire from teachers fall between 4.6 (SD=0.7) for being a useful society member till 2.8 (SD=1.1) in support of local alliances for teaching to a level between non-agreement to some extent. Whereas opportunities for the professional grooming locally with mean 3.4 (SD=1.2) and sharing of local intellect in process of teaching with mean 3.1 (SD=0.8) are responded with moderate feedback. However, total mean of items about localized student process is 3.4 (SD=0.6) which confirms the responses towards existence of localization of teacher and teaching process towards agreement to some extent.

So, at practices of higher education, the opinion of respondents of both questionnaires from students and teachers are more or less in consensus concerning existence of smaller degree of localization. Localization within institutional process exists but the extent is not powerful. Presence of localized curriculum is not supported to some noticeable extent by students and teachers and so as localization of student and teacher aspect; the existence of which was not supported by student and teachers. Therefore, there is no noticeable presence of localization aspect of triplization at the level of practices among all processes of higher education.

### 7. Discussion

To compare both results for existence of localization at policy level and practices of higher education: one common agreement is on presence of localization at the institutional process level as supported by the study of Khan (2017). Localization of curriculum did not show its presence in policies adequately whereas practices of higher education too, reflect an average level presence. The study of Rahman (2004) and Manan, Dumanig and David (2017) support
results being evident of too less localization in terms of language and ethnicity in curriculum. Similarly, Khan (2017) reveal that though localization of curriculum is the need of time but higher education in Pakistan still needs to work seriously towards it. Localization of student and learning aspect showed its occurrence in policies and provisions and in practices, this aspect had its evidence above average. Localized teacher and teaching aspect are catered to some extent in policies and provisions and exactly an average level presence is responded by survey respondents. These results are supported by Ghaus, Lodhi and Shakir (2017) who in their study too stress on provision of proper training and guidance of teachers as guide or mentors of tertiary students in local settings but find it in absentia within higher education Pakistan.

8. Conclusions
Localization, in this regard presents a concept which aims at taking education out of the traditional mode and placing it at the leading edge of the development process through adjustment and adaptations as per local needs (Cheng, 2006; Cheng 2016). It seeks to ensure that education should prepare both individuals and the local societies to be locally energetic and bound to their ideological roots (Cheng 2004; Payne & Askland, 2016) for sustainability and growth. In this regard the findings of the study reflect traces of localization in all aspects positively; induced with concern just with in the current decade with an exception only in curriculum aspect which appears to be slightly lagging behind in both policies and practices of higher education. So, it can be summed up that existence of localization is optimistically present but at an initial stage for implementation of triplization at level of higher education in Pakistan.

References
Delivery of Health Care Service in the Organization of Islamic Cooperation (OIC) Member States and Regional Diversity: A Bootstrap DEA Analysis

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ARTICLE DETAILS

ABSTRACT

For the last few decades, demographic changes require new and expensive medical innovations, which ultimately put the health care system under financial pressure. Therefore, provision of efficient services for the sustainability in health care system is mandatory. The objective of this study is to explore the performance of health care services provided in 55 OIC member countries during 2011 and 2015. The bootstrap Data Envelopment Analysis and Truncated regression approach have been applied to observe the health system and estimate the efficiency score in 55 OIC member countries. The findings of DEA show that cost efficiency (CE), technical efficiency (TE) and allocative efficiency (AE) of health care system of OIC member countries on average are 0.52, 0.72, and 0.70, respectively. It indicates that OIC countries are not good at selecting cost efficient input mix. The results of truncated regression approach indicate that out-pocket health expenditures is the most important determinant relative to other indicators. It is suggested that it is hard to improve the overall health system at most efficient level. For this purpose there is a need to educate the mass and provide the better opportunities so that people can earn handsome amount, through which they may have better health care.

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Keywords
Health Care System; Efficiency; Data Envelopment Analysis; Truncated Regression Analysis.

JEL Classification: H75, I11, I12, I18

1. Introduction

Social and demographic changes raise the financial pressure on a common man who suffers from chronic diseases which ultimately put financial pressure on an economy through more expensive and innovative medical system [Schely (2018), Chevreul, et al., (2010)]. The increasing demand for new and innovative treatments and an increasing request of quality of life for patients put huge financial burden on an economy (Porter, 2009). Now a days all health related sectors and policy makers are highly concerned with better performance of health system and formulate those policies and introduce reforms which can improve the health care system. Therefore, in order to improve the quantity and quality of health system it is vital to assess this system thoroughly and in depth. (Varela, 2010). How many resources are given for health care and how much is consumed by human can be easily assessed and measured through the efficiencies using bootstrap method. (WHO, 2000). Efficiency means how much an
organization or hospital uses resources to provide the best possible opportunities to the patients over the given period of time (Vitaliano and Toren, 1996).

Farrell initially developed efficiency measures, later applied by Debreu and Koopmans. Mehregan, (2008) defines the economic efficiency as minimizing the cost of producing anything/product. Further, economic efficiency is divided into two parts, one is technical and other is allocative efficiency. The allocative efficiency is the optimally used combinations of the factors of production, whereas the producers stay on the stochastic frontier when behaving as technically efficient (Torkamani, 2009).

There are few studies based on the efficiency, e.g. Pinto (2013) found mean efficiency scores were 0.981 and 0.988 with Constant and variable returns to scale conditions respectively for Italy. De Cos and Moral-Benito (2009) used 29 industrialized countries to find the determinants of health system efficiency using Data Envelopment (DE). The results revealed that Australia attained the highest (0.991) and Hungary the lowest (0.942) efficiency score. Haddad et al., (2013) pointed out that the multiple insurers ultimately leads towards the low efficiency in providing the medical facility. (Haddad, et al. 2013).

Afonso et al.(2005) viewed that those countries having small public sector may achieve the high efficiency score and vice versa in health sector. Ramsay found female literacy and income of the household as the main determinants in health care services (Ramsay, et al., 2001).

Extensive studies conducted to assess the efficacy and efficiency of health systems for different countries, including OECD, European and American countries. A very limited studies have been carried out in developing countries for investigating the factors responsible for low efficiency score of health system.

Therefore, the present study aimed to measure the cost efficiency and finding determinant of efficiency in OIC countries during 2011 to 2015 in health system provided by their respective government.

2. Method and Methodology

Usually cost efficiency is estimated by two methods one is parametric (stochastic frontier (SF)) and other is nonparametric techniques (Data Envelopment Analysis (DEA)). Parametric projection of the stochastic frontier requires a behavioral hypothesis for the minimization of cost. Furthermore, the econometric method is parametric and muddles the effects of misspecification of functional form with inefficiency. DEA technique is nonparametric and owing to trivial conditions put on the form of technology, is less disposed to such kind of error of specification (Parameter, 2014). DEA is built upon relative proficiency procedures suggested by Farrell (1957). In this method a country is considered to be efficient if it is producing on the production boundary. By using the input price attuned operational costs as the input variable of cost efficacy merely estimates Farrell’s measure of total efficiency (Linna, et al., 2010). In evaluating the cost efficacy of OIC member countries, the present study uses DEA technique that is based on linear programming method in the estimation of unit-specific efficacy scores (Charness, et al., 1978). DEA makes a piecewise linear efficacy boundary that works as baseline in the assessment of efficiency. If a country is working efficiently it will lie on the production possibility curve and efficacy score of this country will be one which represents 100 percent efficient. Less efficient countries will get a score less than one. For example if score of a country is 0.70 which is measured on the basis of input oriented efficiency, it is seventy percent efficient and thirty percent inefficient which means that 30 percent more output may be produced by using existing resources, alternatively we may say that it is producing only seventy percent of its potentials. If we assume constant returns to scale prevails then the efficiency scores will be similar whether they are obtained by input orientation or output orientation.

Cost efficiency is estimated by solving the following linear program:

$$\text{Min}_{\lambda, Z_{CE}} Z_{CE}$$

s.t.

$$\lambda . Y \geq Y_0$$
$$\lambda . C \leq Z_{CE}$$
$$\lambda_i \geq 0$$
$$\lambda . i = 1$$

Where
Y = It is matrix of dimension n×m of outputs
\( \lambda \) = It is a matrix of dimension 1×n of intensity variables.
C= It is a matrix of dimension n×1 of costs.
CE= it is a scalar demonstrating a country’s cost level
i = it is a column vector of 1s.

Allocative and technical efficiency can be solved through system of linear equations, which gives the input-oriented
technical efficiency:

\[
\begin{align*}
\text{Min}_{z,u} & \\
\text{Subject to} & \\
z.Y & \geq y_o \\
z.X & \leq x \\
z_i & \geq 0 \\
\sum_{i=1}^{n} z_i & = 1
\end{align*}
\]

AE is simply calculated by dividing CE to TE, which is as follows:

\[
AE = \frac{CE}{TE}
\]

At second stage, calculated DEA efficiency score is simply regressed on some other variables to see the effect. There are various techniques to analyze the effect.

Following Asbu(2007), the DEA efficiency scores for VRS may be converted into inefficiency scores using the formula given below:

\[
\text{Inefficiency score} = \frac{1}{\text{Efficiency Score}} - 1
\]

Most commonly, Tobit model is used for DEA analysis, but Simar and Wilson (2007) pointed out that such technique are not appropriate. They suggested truncated regression with bootstrap do satisfactory in its performance during Monte Carlo experiments. So, in present study we also apply Bootstrap DEA approach. Simar and Wilson (2007) assumed that distribution is truncated normal with a zero mean (before truncation), unknown variance and a (left) truncation point is determined by this very condition. The general form of the econometric model may be written as:

### 3. Data Description

The study is conducted to measure cost efficiency of health system of member OIC states for the period of 5 years during 2011 to 2015. The Organization of Islamic Cooperation (OIC) was established in 1969, now have 57 members. The study estimated the efficiency of 55 OIC member countries as data on Palestine is not available. In this study the following variables are used as a measure of output, and input variables with their corresponding input prices (Table. 1). The selection of these variables is based on early studies (for example, Ogloblin, 2011; Karpa and Leoniowska, 2014; Pourreza, et al., 2017).

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>EXPLANATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE</td>
<td>Average number of years that a person at birth is expected to live</td>
</tr>
<tr>
<td>MMR/100000</td>
<td>Maternal mortality rate per 1000 birth</td>
</tr>
<tr>
<td>IMR/1000</td>
<td>Probability of dying between birth and the first birthday of a child/ 1000 birth</td>
</tr>
<tr>
<td>USR/1000</td>
<td>Probability of dying between birth and under first five year of a child /1000 birth</td>
</tr>
<tr>
<td>PHYSIAN /1000</td>
<td>Number of physicians /1000 people</td>
</tr>
<tr>
<td>N&amp;W/1000</td>
<td>Number of nurse and midwives per thousand people</td>
</tr>
<tr>
<td>BEDS/1000</td>
<td>Number of beds in a hospital per thousand people</td>
</tr>
<tr>
<td>COST</td>
<td>Public Health care expenditures in thousands</td>
</tr>
</tbody>
</table>
In DEA method, data have been compiled from World Health Organization (WHO), United Nations Development Fund, World Bank, and OIC countries’ National Health Accounts. Then, the CE of the OIC countries health systems is calculated. The summary statistics of the inputs, outputs and environmental factors are given in Table 2.

Table 2: Descriptive Statistics of Inputs and Outputs

<table>
<thead>
<tr>
<th>Year</th>
<th>Output</th>
<th>Inputs</th>
<th>LE</th>
<th>IMR</th>
<th>MMR</th>
<th>U5MR</th>
<th>Phy</th>
<th>N&amp;W*</th>
<th>BEDS*</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>MEAN</td>
<td>67.88</td>
<td>39.32</td>
<td>309.98</td>
<td>56.26</td>
<td>1.06</td>
<td>1.68</td>
<td>1.56</td>
<td>49.87</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MEDIAN</td>
<td>70.46</td>
<td>35</td>
<td>157</td>
<td>43.7</td>
<td>0.64</td>
<td>0.94</td>
<td>1.08</td>
<td>48.44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S.D</td>
<td>9.02</td>
<td>25.68</td>
<td>335.94</td>
<td>42.2</td>
<td>1.12</td>
<td>1.62</td>
<td>1.38</td>
<td>18.85</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAX</td>
<td>80.63</td>
<td>97.3</td>
<td>1580</td>
<td>149.8</td>
<td>3.92</td>
<td>6.01</td>
<td>7.7</td>
<td>92.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MIN</td>
<td>49.64</td>
<td>6.8</td>
<td>4</td>
<td>8</td>
<td>0.02</td>
<td>0.04</td>
<td>0.27</td>
<td>19.19</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>MEAN</td>
<td>68.21</td>
<td>38.07</td>
<td>301.45</td>
<td>54.11</td>
<td>1.34</td>
<td>1.98</td>
<td>2.14</td>
<td>49.72</td>
<td></td>
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<tr>
<td></td>
<td>MEDIAN</td>
<td>70.65</td>
<td>33.2</td>
<td>155</td>
<td>41.1</td>
<td>1.09</td>
<td>1.23</td>
<td>1.9</td>
<td>48.17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S.D</td>
<td>8.88</td>
<td>24.92</td>
<td>325.65</td>
<td>40.61</td>
<td>1.18</td>
<td>1.73</td>
<td>1.5</td>
<td>19.72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAX</td>
<td>80.82</td>
<td>93.1</td>
<td>1510</td>
<td>145.2</td>
<td>3.84</td>
<td>7.86</td>
<td>7.6</td>
<td>91.82</td>
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<td>0.08</td>
<td>0.18</td>
<td>17.63</td>
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Source: Authors’ Calculation

4. Efficiency Result

We have computed all three efficiencies using bootstrap DEA for VRS for 55 OIC member states and results are presented in Table 3. The table shows technical efficiency (TE) in the second column, allocative efficiency (AE) in the third column followed by cost efficiency (CE) in the last column. It indicates that TE, AE and CE on average are 0.70, 0.72, and 0.51, respectively during the study period. Results indicate that more than seventy percent of the countries are allocatively and technically efficient, but only about 50 percent are cost efficient which shows that they are not good for selecting the input combinations which minimizes the cost optimally.

Further, if we see cost efficiency in depth, as the average of the 55 OIC member countries shows 0.51, there is 49% showing inefficiencies during the same period. It indicates that there is a possibility to improve its overall effect by removing the 49% inputs at current output level. Out of 55 countries only 7 (13%) countries fully achieve the overall cost minimization i.e. Afghanistan, Albania, Chad, Lebanon, Pakistan, Sierra Leone and Somalia. While 48 (87%) countries are found away from the optimal cost obtained from the existing technology. Further, 6 countries...
(11%) fall in the range of CE scores 0.70 to 0.99 and 32 (58%) countries are using more than 50% cost increasing resources in their healthcare system. Most expensive healthcare systems are found in Yemen, Kuwait, Togo, Kazakhstan, Azerbaijan and Burkina Faso as compare to other member countries where more than 80% resources are increasing the cost of their health care system. These countries can reduced 80% of their healthcare resources at given output level.

Afghanistan, Albania, Chad, Lebanon, Pakistan, Sierra Leone and Somalia, are allocatively fully efficient, whereas the allocative efficiency for an individual country is 0.72, which could be further decreased inefficiency from 18% by reallocating the input combinations. Although cost efficiency for Yemen, Kuwait, Togo, Kazakhstan, Azerbaijan and Burkina Faso are quite low, even lower than 0.20, but their AE score are quite better.

It is evident from the findings that these countries are good enough in allocating the resources and inputs while not expert in getting the input combinations ideally which minimizes the cost at the optimal levels. It also shows that only two countries Burkina Faso and Yemen, have more than 80% misallocation of resources at the given prices.

While assessing the technical efficiency, Afghanistan, Albania, Chad, Comoros, Gambia, Lebanon, Mauritania, Pakistan, Sierra Leone and Somalia show the maximum efficiency (1.00), and Benin, Niger, Brunei, Morocco, Guinea, Tajikistan, Indonesia and Mali are following with TE in the range 0.90-0.99. It meant that there is no unnecessary input-mix in the health system of OIC member countries for a given level of output with the current technology. Out of 55, 43 (78%) countries indicate the comparatively high level of the technical efficiency while only 7 countries i.e. Saudi Arabia, Kuwait, Togo, Uzbekistan, Kyrgyz, Azerbaijan, Kazakhstan are technical inefficient, which may be viewed as it could be further declined whether by changing the combinations of the inputs or by downsizing the input scale.

Overall, the cost efficiency over the 55 OIC member countries represents very low as compared to the allocative and technical efficiency during the study period. It indicates that these member countries are good at allocating the input-mix and using appropriate input-mix, but may be not good at selecting optimal cost obtained from the existing technology.

Table 3: Technical, Allocative and Cost Efficiency Scores of the OIC Countries (2011-15)

<table>
<thead>
<tr>
<th>COUNTRIES</th>
<th>TECHNICAL EFFICIENCY</th>
<th>ALLOCATIVE EFFICIENCY</th>
<th>COST EFFICIENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>1</td>
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<tr>
<td>Albania</td>
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<td>1</td>
<td>1</td>
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<tr>
<td>Algeria</td>
<td>0.57</td>
<td>0.76</td>
<td>0.42</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>0.29</td>
<td>0.69</td>
<td>0.16</td>
</tr>
<tr>
<td>Bahrain</td>
<td>0.6</td>
<td>0.51</td>
<td>0.31</td>
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<tr>
<td>Bangladesh</td>
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<td>0.76</td>
<td>0.43</td>
</tr>
<tr>
<td>Benin</td>
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<td>0.91</td>
</tr>
<tr>
<td>Brunei</td>
<td>0.96</td>
<td>0.67</td>
<td>0.63</td>
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<tr>
<td>Burkina Faso</td>
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<td>Cameroon</td>
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<td>0.39</td>
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<td>Chad</td>
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<td>Comoros</td>
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<td>0.68</td>
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<td>0.64</td>
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<td>0.47</td>
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<td>Jordan</td>
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**SUMMARY STATISTICS OF EFFICIENCIES SCORE**

4.1 Bootstrap Truncated Regression

At the second stage, determinants of efficiency are estimated by using regression analysis in the light of technique suggested by Simar and Wilson (2007). The results are presented in Table 4.

Table 4: Truncated Regression Analysis

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<th>Cost Inefficiency</th>
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<td>0.207**</td>
<td>0.2615*</td>
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<td>-0.0183*</td>
<td>-0.0429*</td>
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<tr>
<td>SW</td>
<td>-0.0381**</td>
<td>-0.02513*</td>
<td>-0.0248*</td>
</tr>
<tr>
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<td>0.1024**</td>
<td>0.0410**</td>
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<tr>
<td>UR</td>
<td>0.0024*</td>
<td>0.0049***</td>
<td>0.0029**</td>
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<td>C</td>
<td>1.2031*</td>
<td>1.1304**</td>
<td>2.1801*</td>
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</table>

***, **, and * represent significance at 1, 5, and 10 percent points.

Note: Estimation based on Algorithm 1 with 2000 bootstrap followed by Simar and Wilson, (2007).

The regression results shown in Table 4 have been obtained after 1000 iterations, the dependent variable is inefficiency scores and the independent variables are out of pocket health expenditure percentage of total health expenditure, literacy rate, and percentage of population access safe drinking water, population growth rate and unemployment rate. The first independent variable OOPHE which has positive coefficient and variable is statistically significant. It indicates that as there is an increase in share of OOP in total health expenditure, there will be an increase in technical, allocative and cost inefficiency. However the increase in technical inefficiency is greater than allocative and cost efficiency. This positive impact of first independent variable may be due to the reason that a unit increase in OOPTHE leads to an increase in private health expenditures as compare to public health expenditures. OOP negative effects of out-of-pocket payments on access to and equity of health services (Kirgia, etal., 2015). People may prefer to use private health facilities and public health facilities will face inefficiency due to improper facilities of public health system, which ultimately enhance the inefficiency of the health care system. The next variable is literacy rate which has negative but statistically significant. It indicates that as there is an increase in education level, there will be a decrease in efficiency (TE, AE, CE) which may be due to the reason that an increase in education level leads to an increase in awareness regarding the diseases and relevant preventive measures. Probability of getting sick will be less with better education of the People. The coefficient of percentage of population having access to safe water showing significant effect, which explains that maximum people have safe drinking water, would not get sick. The next variable is population growth rate is positive and significant which indicates that size of the population increases the inefficiency of the health care system as population grows there is be less facilities to the greater mob as resources will be divided and less facilities will in return available per person. The coefficient of unemployment is positive and statistically significant which indicates that inefficiency of the health care system increases along with an increase in unemployment.

5. Conclusion and Recommendations

The health systems of the OIC member countries have been examined using Boots strap DEA. The empirical findings reveal that 50% of the efficiency score is obtained, which can be further improved through re-allocation of resources at the best efficient way in health system. In this milieu, this study has contributed by giving policy makers useful information about the economic performance of selected OIC countries particularly about the regional health system. It is pointed out that there is presence of potentials to improve the technical efficiency through optimal use of input combinations. Out of pocket health expenditures and literacy rate have more impact on technical, allocative and cost efficiency as compare to other factors. The government of these countries should prioritize and allocate more resources to finance health as well as in education sectors as compare to other sectors of the economy.
References


Sensitivity Level of Educational Administrators towards Child Rights

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ARTICLE DETAILS

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<th>ABSTRACT</th>
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<td>Revised format: February2019</td>
<td>The Sensitivity level of administrators towards human rights specifically child rights in secondary schools needs to be explored. This sensitivity level towards child rights in terms of provision, protection and participation under United Nation Child Rights Convention (UNCRC) was assessed through knowledge, attitude and practice (KAP) model. The cognizance of this need necessitates to layout ways of improvement for child rights. This study therefore, articulated and empirically validated the problems through educational administrators working in secondary schools of Punjab, Pakistan. This cross sectional study used quantitative method design for data collection from 233 educational administrators (CEO, DOs and Head teachers) selected through simple random sampling method from each division with a response rate of 100%. The analysis of data showed that administrators have high sensitivity level about knowledge, attitude and practice of child right provision, protection and participation. This study is useful for researchers, practitioners, and policy makers.</td>
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<td>Available Online: March 2019</td>
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Keywords

CEOs and DOs, Head teachers, Provision, Protection, Participation, Knowledge, Attitude, Practice, Secondary School Punjab, Pakistan

JEL Classification:

A20, A21, P46

1. Introduction

Sensitivity refers to the strength of the capacity to detect and discriminate a stimulus or change. It is the phenomenon that how strongly an individual perceived a factor. Studies have shown that subjects’ sensitivity towards a particular matter (i.e. cultural sensitivity) depends upon their attitudes, behaviors, knowledge and application of awareness (practice) of that particular matter (Banks, 1987; Grant, 1994). Child welfare and child rights including provision, protection and participation are the part of welfare system of all societies. The needs and the risks of child rights provision, protection and participation are widely acknowledged. In Pakistan, the children are facing a lot of problems regarding basic rights including free and modern education, health, safety, security and lifelong learning in comfortable and peaceful schooling environment (SPARC & Plan, 2005); (Shahab, Ushijima & de-Muyneck, 2004). From above back drop, it is quite obvious that there is need to explore perceptions of all stakeholders including teachers and educational administrators in this context. This study is useful as a tool to improve the observance of child rights in secondary schools of Punjab in Pakistan.

2. Review of Related Literature
Children are the future of any country who become productive class of citizen for a nation. In Pakistan, 39 percent population is below 18 years (80.4 million children Censes, 2017 & Spate & Learmonth, 2017). Any human being under 18 years of age as per state law provisions falls in the category of child. Legally a child is considered as minor being younger than the age of majority (Okyere & Imoh, 2014). Generally speaking, child rights are human rights. There is only a subtle distinction between the two notions. Human rights are protected in international human rights bills and agreements with principle of equality and non-discrimination, to be applied to every individual equally and fairly. As for their specific conditions of maturity and vulnerability is concerned, it is universally agreed that children should have a special protection yet reasonable freedom and active participation in matters directly concerning their life (Kosher, Ben-Arieh, & Hendelsman, 2016).

As per Natural theory, all humans are born with inherent rights by nature. It is the universal moral principle that lie beneath the ethical and legal norms of society through which human conduct is measured and evaluated because all humans are governed by basic laws of nature. This theory is also reflected in article 1 of UNCRC, which inter-alia stipulates that all humans are free with equal rights by birth (Gilabert, 2015).

Social justice theory is based on abilities of people living in a society and these capabilities and potential of people are required to be realized. As per social justice theory, all people are equal morally (Asch, 2017). The preamble to the constitution of different countries including Pakistan indicates to social justice in these terms and according to which, all persons shall have equal rights and obligations. Children’s free and equal rights are seriously violated because most of them are forced to carry out activities out of their will such as child labor, forced marriages and prostitution (Robertson, Bromfield & Lamont, 2014). This study, therefore, observes that there is a problem between these proclamations and the respect for children’s rights.

Moral theory entitles everyone to human rights which also come with their duty or obligation to respect it. The moral theory is related to natural rights by the fact that everyone is born free and has equal rights towards one another. Kant (1949) described the moral theory into actions, which must be derived from duty than from inclination (Chappell, 2014). Moral theory is more forcefully applicable to children in terms of provision, protection and participation. The moral theory enforces moral justice to people, especially children suffering from human rights violation, to establish a better society (MacIntyre, 2016).

Sociocultural theory is actually based on different social, cultural norms and value systems, which are being practiced in different communities. The transformation of taboos, values and traits make the communities more flexible and acceptable for others (Wenger, 1998; Wenger, McDermott, & Snyder, 2002), and in this way communities become learners of practices of other cultures and societies (Rogoff, 2003; Rogoff, Baker-Sennett, Lacasa, & Goldsmith, 1995; Rogoff, Matusov, & White, 1996). Children are also part of those communities and in this way, cultural interactions with peers and other members of communities transform the intercultural and inter-social harmony. Both learners and practicing communities are interlinked with the bond of learning and development (Rogoff, 2003).

The binding feature between these different theories is children’s participation which lead towards their psychomotor and cognitive development. From the above diagram, it is quite evident that children rights interpretation, childhood sociology related studies and socio-cultural/ ecological theories must be twined for the best of child development rather than to destroy the personality of future generation. Education has a pivotal role to communicate culture in transforming the child personality in a positive way. Participation of children in cultural processes is a right (Articles 12 and 13; CRIN, 2007).

As per UNCRC, every child regardless of age and gender is unique in character and has equal status of human respect and dignity. Moreover, children have right to participate in decision making. Children must be given right to be listened and due respect to their view point (CRIN, 2007). Without recognition of children rights, there can never be agreement on rights of children (Bentley, 2005).

According to Alston et al. (2005), UNCRC can be divided into five phases. Initially, child rights movement focused on child labor and sexual harassment. After World War-I, League of Nations developed working on Declaration of the rights of Children rights as humanitarian. As per the provisions of Geneva Convention 1959 and Declaration of Rights of Children, child rights were emphasized. The basic principle was that mankind should owe the children and invoke special attention of the World community to provide them special assistance in the situation of emergency.

There was a paradigm shift from children protection to grant of children’s rights (Freeman, 1998). Cultural relativism debate was the major focus of critique of the ‘best interests’ principle:

While the significance of national and regional particularities and various historical, cultural and religious backgrounds must be borne in mind, it is the duty of States, regardless of their political, economic and cultural systems, to protect all human rights and fundamental freedoms (Alston, 1994)

The child rights include Child’s best interests Principle, Parental care about child’s rights, Child’s developing abilities and Child’s rights Consultation (Ritchie & Ritchie 1997).

This final phase of child rights pertains to implementation and then, accountability (Alston et al., 2005). This is highly difficult task because of different types of economies, centralized and decentralized system of governments, use of various modern technologies by states, different concepts of social, cultural and moral obligations, and complex legal framework of ratified states due to which such international conventions have to be compromised.

3.1 UNCRC: Provision, Protection and Participation (3 Ps)

In UNCRC, child rights have been elaborated through ‘3Ps’ that is Provision, Protection and Participation. The Provision Rights pertain with services, resources and skills which are essential for children's existence and their development like education, health care and the right to play (Art 24,28 and 31). Provision means minimum standards of life, social security, health, education, accessibility to care, recreation, culture, play and leisure. The Protection Rights save children from acts of mistreatment or exploitation like protection from any type of physical and sexual abuse, mistreatment, substance abuse, inequality, discrimination and conflict (Art 3,19 and 32).

The Participation Rights that provide children freedom to engage and participate in the processes to prepare themselves for society. These include the right to express their views etc. and right to information (Art12 and 13). Participation means political and civil rights like the right of identity, consultation, physical integrity, information and freedom of opinion (Alderson et al., 2005; Hammarberg, 1990; Lansdown, 1994; Rogers, 2004).

To assess the sensitivity of administrators in terms of provision, protection and participation about child rights, the structured questionnaire surveys are helpful technique and KAP (Knowledge, Attitude and Practice) survey is very much authentic model to assess the sensitiveness of any social behavior which allows the researchers in collecting a large amount of data that will be subject to statistical analysis.

The KAP is a survey instrument used to identify the knowledge (K), attitudes (A) and practices (P) of a population on a specific topic (Kaliyaperumal, 2004). Knowledge is the capacity to get, remember the mixture of comprehension, experience, judgment and skill. Attitudes refer to inclinations to respond to certain situations in a certain way and to see and construe events according to certain predisposition and Practices mean the application of rules and knowledge that leads to action (Green 2001, Hausmann-Muela et al. 2003, Manderson and Aaby 1992, Nichter 2008). The KAP surveys is effective in its characteristics like easy to design, easy to quantify data, easy to interpret and easy to give concise presentation of results, easy to generalize small sample results to a wider population, cross-cultural comparability, and speed of implementation (Bhattacharyya 1997, Stone and Campbell 1984).

<table>
<thead>
<tr>
<th>Respondents</th>
<th>KAP</th>
<th>Child Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators (CEOs/Dos/Head teachers)</td>
<td>Overall Knowledge</td>
<td>Provision</td>
</tr>
<tr>
<td>Overall Attitude</td>
<td>Attitudes towards provision</td>
<td>Attitudes towards protection</td>
</tr>
<tr>
<td>Overall Practice</td>
<td>Practices in provision</td>
<td>Practices in protection</td>
</tr>
</tbody>
</table>

The problem is that child rights provision, protection and participation is not properly observed in secondary schools. It is important to measure the sensitivity level (knowledge, attitude and practice) of administrators about child rights.

The objectives of the study are, to find out the difference of sensitivity level of knowledge (provision, protection and participation) about child rights of educational administrators; to identify the difference of sensitivity level of attitude (provision, protection and participation) towards child rights of educational administrators; and to explore the difference of sensitivity level of practice (provision, protection and participation) in child rights of administrators.

The study is an attempt to find out answers to questions, such as; what is the level of knowledge provision, protection and participation of educational administrators about child rights in schools; what is the level of attitude provision, protection and participation of educational administrators towards child rights in schools; and what is the level of practice provision, protection and participation of educational administrators in child rights in schools?

5. Research Methodology
Punjab, the most populous province of the Pakistan, has vast geographical and diverse social demographics were taken as the container of population. This research was a cross sectional survey and the study identified and described the extent of knowledge, behavior, and attitudes of school administrators towards child rights. A sample of 233 educational administrators i.e. CEOs/EDOs, Dos and head teachers (including male, female, urban and rural) were proportionately and randomly selected from 9 divisions, 36 districts and 147 tehsils of Punjab.
5.1 Constructs aligned with UNCRC

PROVISION

1. Adequate standard of living
2. Health care
3. Education
4. Services
5. Play and recreation.
6. A balanced diet
7. A warm bed to sleep in
8. Access to schooling

PROTECTION

1. Protection from abuse
2. Protection from neglect
3. Exploitation and discrimination
4. Safe places for children to play
5. Constructive child rearing behavior
6. Acknowledgment of the evolving capacities of children

PARTICIPATION

1. Participate in communities
2. Have programs and services for themselves
3. Involvement in libraries and community programs
4. Youth voice activities
5. Involving children as decision-makers

The instrument for Administrators was developed on the basis of above UNCRC constructs and it was named as 3PST. It comprised of 118 items consisting three (03) main constructs base on “3Ps” namely Provision, Protection and Participation (3Ps). Further each construct was divided into three objectives i.e. Knowledge, Attitudes and Practice respectively. Five-point Likert Scale was used to measure the responses of teachers. The validation of instruments includes the content and face validity. The instrument was validated by the subject matter experts.

The reliability coefficient Cronbach’s alpha values of all variables were good and above 0.70 i.e. 0.853 for overall knowledge, 0.837 for overall attitude, and 0.944 overall practice in child rights. After validation of research instruments from subject matter experts, the final questionnaire (SPST) was actually launched.
5.2 Conceptual Framework

<table>
<thead>
<tr>
<th>Demographic/Independent Variables</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>KNOWLEDGE ABOUT CHILD RIGHTS</td>
</tr>
<tr>
<td>Age</td>
<td>Knowledge Provision</td>
</tr>
<tr>
<td>Locale</td>
<td>Knowledge Practice</td>
</tr>
<tr>
<td></td>
<td>Knowledge Participation</td>
</tr>
<tr>
<td></td>
<td>ATTITUDE TOWARDS CHILD RIGHTS</td>
</tr>
<tr>
<td></td>
<td>Attitude Provision</td>
</tr>
<tr>
<td></td>
<td>Attitude Practice</td>
</tr>
<tr>
<td></td>
<td>Attitude Participation</td>
</tr>
<tr>
<td></td>
<td>PRACTICE IN CHILD RIGHTS</td>
</tr>
<tr>
<td></td>
<td>Attitude Provision</td>
</tr>
<tr>
<td></td>
<td>Attitude Practice</td>
</tr>
<tr>
<td></td>
<td>Attitude Participation</td>
</tr>
</tbody>
</table>

Figure 1: Conceptual framework of the study

6. Analysis

Table 1: The t test by gender on knowledge, attitude, practice and its factors of child rights:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>'t'</th>
<th>df</th>
<th>'p'</th>
</tr>
</thead>
<tbody>
<tr>
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<td>9.19</td>
<td>3.102</td>
<td>1.311</td>
<td>229</td>
<td>.191</td>
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<tr>
<td></td>
<td>Female</td>
<td>102</td>
<td>8.80</td>
<td>3.064</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Protection</td>
<td>Male</td>
<td>129</td>
<td>6.48</td>
<td>2.875</td>
<td>.227</td>
<td>229</td>
<td>.821</td>
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<td></td>
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<td>102</td>
<td>6.57</td>
<td>2.997</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Participation</td>
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<td>129</td>
<td>7.61</td>
<td>2.854</td>
<td>1.406</td>
<td>229</td>
<td>.161</td>
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<tr>
<td></td>
<td>Female</td>
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<td>6.57</td>
<td>3.064</td>
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<td></td>
</tr>
<tr>
<td>Overall Knowledge</td>
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<td>129</td>
<td>8.15</td>
<td>2.892</td>
<td>1.352</td>
<td>229</td>
<td>.178</td>
</tr>
<tr>
<td></td>
<td>Female</td>
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<td>7.61</td>
<td>2.997</td>
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<td>Attitude Provision</td>
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<td>.855</td>
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<td></td>
<td>Female</td>
<td>102</td>
<td>30.77</td>
<td>5.424</td>
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</table>
6.1 Knowledge and its factors
Table above shows that the t value (1.352) was not significant at p <0.05 for the knowledge subscale score, hence the female administrators (M = 26.45, SD = 9.160) perceived knowledge level equally about child rights as compared to male administrators (M = 24.99, SD = 7.235).

The analysis regarding the knowledge factors reflects that t values for ‘knowledge provision’ (1.311), knowledge protection (.227) and ‘knowledge participation’ (1.406) was not significant at p <0.05. Therefore, it is concluded that both male and female administrators had almost equal level of provision, protection and participation and overall knowledge about child rights.

6.2 Attitude and its factors
Table above shows that the t value (.924) was not significant at p <0.05 of the attitude subscale, hence the female administrators (M = 78.58, SD = 9.16) perceived equally attitude towards child rights as compared to male administrators (M = 24.99, SD = 11.60).

The analysis regarding the knowledge factors reflects that t value for ‘knowledge provision’ (183), knowledge protection (.661), and ‘knowledge participation’ (2.143) was not significant at p <0.05. Therefore, it is concluded that both male and female administrators’, had almost equal level of overall attitude provision, protection and participation towards child rights.

Practice and its factors
Table above shows that the t value (1.286) was not significant at p <0.05 for the practice subscale, hence the female administrators (M = 264.60, SD = 45.11) perceived almost equal practice level in child rights as compared to male administrators (M = 272.26, SD = 45.66).

The analysis regarding the practice factors reflects that t values for ‘provision’ (.899), protection (1.135), and ‘participation’ (1.426) was not significant at p <0.05. Therefore, it is concluded that both male and female administrators’, had almost equal level of overall practice provision, protection and participation in child rights.

Table 2: One-way ANOVA for knowledge, attitude, practice and its factors on age group of administrators

<table>
<thead>
<tr>
<th>Sum of Squares</th>
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<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>df</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------</td>
<td>-----</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>Knowledge Protection</td>
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<td></td>
</tr>
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<td>16.221</td>
<td>2</td>
<td>8.111</td>
<td>.943</td>
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<td>Within Groups</td>
<td>1934.621</td>
<td>225</td>
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<td>Total</td>
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<td>227</td>
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<tr>
<td>Between Groups</td>
<td>1.121</td>
<td>2</td>
<td>.060</td>
<td>.007</td>
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<tr>
<td>Within Groups</td>
<td>1908.809</td>
<td>225</td>
<td>8.484</td>
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<tr>
<td>Total</td>
<td>1908.930</td>
<td>227</td>
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<tr>
<td>Knowledge Participation</td>
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<tr>
<td>Between Groups</td>
<td>.420</td>
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<td>.006</td>
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<td>Within Groups</td>
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<tr>
<td>Between Groups</td>
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<td>37.192</td>
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<td>67.067</td>
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<td>Total</td>
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<tr>
<td>Overall Attitude</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
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<td>2</td>
<td>73.946</td>
<td>.469</td>
</tr>
<tr>
<td>Within Groups</td>
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<td>Total</td>
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<tr>
<td>Attitude Provision</td>
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<tr>
<td>Between Groups</td>
<td>63.756</td>
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<td>Within Groups</td>
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<tr>
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<td>Overall Attitude</td>
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<tr>
<td>Between Groups</td>
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<td>2</td>
<td>73.946</td>
<td>.469</td>
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<tr>
<td>Within Groups</td>
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<td>157.818</td>
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<tr>
<td>Total</td>
<td>35656.890</td>
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<tr>
<td>Practice Provision</td>
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</tr>
<tr>
<td>Between Groups</td>
<td>41.424</td>
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<td>Practice Protection</td>
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<td>Within Groups</td>
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<td>Practice Participation</td>
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<td>Overall Practice</td>
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</tr>
<tr>
<td>Between Groups</td>
<td>368.260</td>
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<td>Total</td>
<td>469282.561</td>
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<td></td>
</tr>
</tbody>
</table>

*p < 0.05, **p < 0.01, ***p < 0.001

### 6.2 Knowledge and its factors

One-way analysis of variance showed the effect of age on administrators’ sensitivities towards knowledge and its
factors for child rights. The administrators with different age had not significantly different opinions about knowledge participation for child rights (F = .007), p < .05. The administrators did not show any significantly different perceptions based on age, regarding ‘knowledge provision for child rights’ (F = .771), p > .05, knowledge protection (F = .943), p > .05 and overall knowledge (F = .555), p > .05 about child rights.

Therefore, it is concluded that the administrators having different age, had perceived almost equal level of provision, protection, participation, and overall knowledge about child rights.

6.3 Attitude and its factors
One-way analysis of variance showed the effect of age on administrators’ perceptions towards attitude and its factors for child rights. The administrators did not show any significantly different perceptions regarding ‘provision’ (F = .006), p > .05, protection’ (F = .753), p > .05, ‘participation’ (F = .977), p > .05, and overall attitude (F = .469), p > .05, towards child rights.

Therefore, it is concluded that the administrators having different age, had almost equal level of provision, protection, participation, and overall attitude towards child rights.

6.4 Practice and its factors
One-way analysis of variance showed the effect of age on administrators’ perceptions regarding practice and its factors in child rights. The administrators did not show any significantly different perceptions based on age regarding ‘provision’ (F = .055), p > .05, ‘protection’ (F = .655), p > .05, ‘participation’ (F = .1324), p > .05, and overall practice in child rights (F = .088), p > .05.

Therefore, it is concluded that the administrators having different age, had almost equal level of provision, protection, participation, and overall practice in child rights.

Table 3: One-way ANOVA for knowledge, attitude, practice and its factors on locality of administrators

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
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<td>Knowledge Provision</td>
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<tr>
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<td>230</td>
<td>8.509</td>
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<tr>
<td>Total</td>
<td>1970.009</td>
<td>232</td>
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<tr>
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<tr>
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<td>2</td>
<td>3.684</td>
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<tr>
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<td>Attitude Provision</td>
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<td>Between Groups</td>
<td>166.042</td>
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<td>7486.490</td>
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<tr>
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<td>75.632</td>
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<td>Attitude Participation</td>
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<td>24.718</td>
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<td>Total</td>
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<tr>
<td>Overall Attitude</td>
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<tr>
<td>Between Groups</td>
<td>821.834</td>
<td>2</td>
<td>410.917</td>
<td>2.682</td>
<td>.071</td>
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<td>Within Groups</td>
<td>7624.165</td>
<td>230</td>
<td>32.947</td>
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<tr>
<td>Total</td>
<td>7705.999</td>
<td>232</td>
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</table>
6.5 Knowledge and its factors
One-way analysis of variance showed the effect of locale on administrators’ perceptions concerning knowledge and its factors. The administrators did not show any significantly different perceptions based on locale regarding ‘provision’ (F = 1.788), p > .05, ‘protection’ (F = .767), p > .05, ‘participation’ (F = .443), p < .05, and ‘overall knowledge’ about child rights (F = 1.789), p > .05.

Therefore, it is concluded that the administrators having different locale, had almost equal level of provision, protection, participation, and overall knowledge about child rights.

6.6 Attitude and its factors
One-way analysis of variance showed the effect of locale on administrators’ perceptions concerning attitude and its factors towards child rights. The administrators did not show any significantly different perceptions regarding ‘provision’ (F = 2.551), p > .05, ‘protection’ (F = 1.829), p > .05, ‘participation’ (F = 1.484), p > .05, and overall attitude towards child rights (F = 2.682), p > .05.

Therefore, it is concluded that the administrators having different locale, had almost equal level of provision, protection, participation, and overall attitude towards child rights.

6.7 Practice and its factors
One-way analysis of variance showed the effect of locale on administrators’ perceptions concerning practice and its factors in child rights. The administrators did not show any significantly different perceptions regarding ‘provision’ (F = 1.031), p > .05, ‘protection’ (F = .812), p > .05, ‘participation’ (F = .771), p > .05, and overall practice in child rights (F = 581), p > .05.

Therefore, it is concluded that the administrators having different locale, had almost equal level of provision, protection, participation, and overall practice in child rights.

7. Conclusion and Results
The female administrators perceived overall knowledge level, equally about child rights as compared to male administrators; both male and female administrators, had almost equal level of sensitivity in terms of provision, protection and participation and overall knowledge about child rights; the female administrators perceived equally overall attitude towards child rights as compared to male administrators; both male and female administrators ‘had almost equal level of overall attitude provision, protection and participation towards child rights; the female administrators perceived almost equal practice level in child rights as compared to male administrators; both male and female administrators’, had almost equal level of overall practice provision, protection and participation in
child rights.

The administrators with different age had not significantly different opinions about knowledge participation for child rights. The administrators did not show any significantly different perceptions based on age, regarding ‘knowledge provision for child rights’, knowledge protection and overall knowledge about child rights; the administrators having different age, had perceived almost equal level of provision, protection, participation, and overall practices in child rights; the administrators having different age, had almost equal level of provision, protection, participation, and overall attitude towards child rights; the administrators having different age, had almost equal level of provision, protection, participation, and overall practice in child rights.

The administrators having different locale, had almost equal level of provision, protection, participation, and overall knowledge about child rights; the administrators having different locale, had almost equal level of provision, protection, participation, and overall attitude towards child rights; the administrators having different locale, had almost equal level of provision, protection, participation, and overall practice in child rights.

Based on the findings, it is recommended that the administrators must be vigilant about the rights of children but it would be appropriate that the child rights seminars must also be arranged on monthly basis and the parents and teachers must be involved in such seminars frequently so that level of sensitivity about child rights may be increased optimally, which will increase the participation of child in different activities.

Prioritizing child protection, all stakeholders like government, school administration, line departments should play an active role in nation building and children should be given a ‘decision making role in school environment, administrators may be provided counselling and guidance from Child rights experts to ensure protective child rights environment in schools. Parents teachers’ meetings may be arranged to avoid and reduce the neglect of child rights.

References
illumination, 4(1), 7-9.
Kant, I. (1949). Critique of practical reason, and other writings in moral philosophy.
Curing Expensive Mistakes: Applying ISM on Employees’ Emotional Behaviors in Environment of Mergers

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ARTICLE DETAILS

ABSTRACT

Aim of the study is to apply ISM on disordered chaotic hierarchy of employees’ emotional behaviors that result in failed mergers. It is an exploratory research that uses in depth literature review for identification of behaviors, ISM for exploring causal relations, analyzing interactions & prioritizing them and MICMAC analysis for classifying them on the basis of their driving-dependence power. Findings revealed that: there are total eighteen employees’ emotional behaviors, having four levels hierarchy where job insecurity, feeling of degradation and jealousy occupy bottom of ISM model, hence, are most critical whereas, shame and compassion occupy top i.e. relatively less critical. MICMAC revealed that two behaviors are dependent, two are independent, and fourteen are autonomous and no ambivalent. This study is useful for organizations which are in process of mergers or acquisitions. This study is unique as it takes the matter holistically and develops pertinence wise hierarchicalization of behaviors. The paper offers three main contributions: i) it provides comprehensive conceptual understanding of constructs of the phenomenon and underpins complex relationships among behaviors, ii) developed a model of hierarchicalization of emotional behaviors and iii) developed driving-dependence diagram on the continuum of weak-strong.

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Keywords: Mergers, Emotional Behaviors, Hierarchicalization, Pakistan, ISM, MICMAC.

JEL Classification: C91, J50, J54

1. Introduction

Phenomenon of mergers began in U.S. in late 19th century wherein business organizations are combined for their mutual benefits in terms of enlargement in market and rapid growth (Zhao et al., 2016). Mergers have become a common concept particularly in emerging concept of knowledge economy (Yaghoubi et al., 2016). Organizations attempt to access innovative technologies and knowledge through merger for their benefits to strengthen and enhance their core capabilities (Casal and Fontela, 2007; Liu and Meyer, 2018). In finance and management literature, concept of merger has become a topic of strategic importance (Haleblian et al., 2009). Living in era of
competitiveness, it has become difficult for companies to develop themselves to meet all technological challenges particularly in scenario when product life has been reduced. In this context, Zhao (2009) suggested that organizations have option to complement their internal efforts through mergers and alliances. Although, mergers provide opportunity to organizations to expand their knowledge and capabilities, however, it does not provide guarantee to new organizations that they would be able to exploit acquired knowledge and capabilities (Ranft and Lord, 2002; Reus and Lamont, 2009; Al-Laham et al., 2010).

A number of research studies has been conducted on issue of success or failure of mergers and acquisitions. Main reason for failure of merger is considered the poor strategic planning (Stahl, 2004). Furthermore, Leslie et al. (2018) revealed that majority of mergers result in failure; because on paper, planning seems excellent but in execution, result does not meet objectives. This is the very reason that mergers have often been discussed as expensive mistake by companies. In this context, Manea & Ali (2017) and Rodríguez-Sánchez et al. (2019) concluded that for successful merger, a proactive corporate strategy needs to be applied to address issues related to corporate culture and human resource, however, hardly these issues are considered until serious complications take place in merger process. Similarly, Hunt (1987) carried out a study and noted that employees’ involvement/role in acquisition and merger is only one-third. He further asserted that management often fails to acknowledge and handles cultural and human resource issues proactively during process of merger on part of acquiring company, which may cause to support transition, risk of failure of merger, reduce emotional effects and trust of employees of merged organization (Bansal, 2016). During process of merger, multiple problems (particularly related to human resource) frequently occur which make it challenging (Ranft and Lord, 2000, 2002; Graebner, 2004; Castro and Neira, 2005).

Mostly, companies focus on what they can get rather than what they can give to acquired company (Martin, 2016). It results into insensitivity to execute affairs of merger, slow execution of planned activities, leadership inefficiency (Stahl, 2004), cultural differences, human resource problems (such as egoistic differences or grouping within company) and lack of trust between parties (Bansal, 2016). These differences ultimately transmute into emotional reactions of employees of both merging and merged organizations. Ignoring emotional behaviors of employees often proves to be pricey for surviving organization. For a successful merger, it is necessary for leaders and managers to have better understanding about potential influencing factors including organizational culture, size, diversity, team building, communication channel, demographic characteristics of employees, resolution of conflicts and emotional behaviors (Pike, 2017; Ayub et al., 2017; Chen et al., 2018; Sarabia et al., 2019).

Employees’ emotional behaviors during environment of merger play an important role for success of a merger and these behaviors can be categorized into positive and negative emotional behaviors. Emotions of employees during mergers play a pivotal role in determining the fate of mergers. Emotions reveal that how employees of an organization communicate within and outside organization (Walsh, 2019). Different events at workplace give a different mental impression to employees. These impressions further develop emotional state of employees bringing change in their thinking and working styles both in positive and negative. Since the scope of study is limited to negative emotional behavior therefore authors confine their arguments thereon. Negative emotional behaviors are the behaviors which display inner dissatisfaction of employees due to negativism. If an employee gets negative emotions, he starts focusing more on problems rather on work which lead him towards wastage of time and less productivity. All these negative emotions increase probability of work deviance.

In literature, a growing number of studies have been conducted addressing the issue of “human side” of mergers such as Buono and Bowditch, 1989; Stahl et al., 2013; Hajro, 2015; Sarala, et al., 2016; Sarala et al., 2017. This shows the role of employees in mergers determining the degree and importance of strategic goals including realization of synergy and transfer of knowledge (Sarala et al., 2016; Bruegger et al., 2018). Some researchers are also of the view that during merger or acquisition, consequences effect on employees (Diaz, 2015) and managers may also face emotional reactions from employees which may affect cultural norms and feelings of disappointment (Sanan et al., 2017). Such problems add considerable expense to integrate processes and create further problems for integration (Bligh, 2006). Mergers between various business organizations have become a regular feature of businesses in globalization arena. More specifically, mergers may be considered as phenomenal and transformational process for organizations. Mergers are events that need cultural integration, challenges as companies attempt to integrate cultural differences and employees can react and show negative emotional behavior (Ager, 2011). Supporting this viewpoint, Manea and Ali (2017) noted that employers may recognize importance of
employees in determination of merger’s fate as a reality and also consider it as a hard issue. They further probed that without realizing the importance of employees who produce goods and render services, evolving strategies and decision making may lead to failure to achieve synergy for wealth creating strategy through merger.

Emotional aspects of employees cannot be ignored during planning and execution of mergers. Hence, it becomes sin qua non to scientifically handle employees emotions, which needs extra care and tactfulness of planners for successful execution of mergers. There are numerous studies, directly or indirectly addressing the issue, but they identified, described or analyzed behaviors partly i.e. one or some of behaviors (Lunardo and Saintives, 2018). In merger, emotions can be considered as an important factor in determining the attitudes and behaviors of employees. Hence, there is a need to identify critical negative emotions, which may have an impact to determine fate of a merger.

This study uncovers interdependency of behaviors in a hierarchy during environment of merger. Level of each behavior would also be determined in order to get a clear picture of importance of each and every behavior. Objective of this study is to identify important behaviors which, if not dealt appropriately during strategic merger planning, may lead towards merger failure and vice versa. To be more specific, following are major objectives of the study:

• To identify and rank critical negative emotional behaviors of employees of organizations subject to mergers.
• To determine and analyze interactions among them.
• To classify them into clusters on the basis of driving-dependence power.
• To discuss how the model is helpful to planners of mergers.
• To discuss managerial implications.

Remaining paper is structured as follows: literature & theoretical foundation, methodology, discussion and conclusion.

2. Literature and Theoretical Foundation
Research on investigating effects of both emotions (i.e. positive and negative) remains scarce (Lunardo and Saintives, 2018). Processes related to emotions are not usually acknowledged and explained in merger studies. Emotions are outcomes of a complex cognitive evaluation process of employees. There could be difference of emotions between employees of acquiring and target companies but it may differ from employee to employee within same firm. Brundin and Liu (2015) asserted that strategic process generate strong emotions at multiple stages in an organization. It indicates that employees involved in merger, which make cognitive evaluation at different levels including evaluation of strategy and resources in merger. A multitude of negative emotional behaviors is observed while during discourse of literature review, keeping in view scope of the study, it is appropriate to place on record highly relevant behaviors like fear, frustration, anxiety, stress, depression, rage, apathy, distrust, jealousy, insecurity, exhaustion and guilt contributing in increasing trend of workplace deviance which ultimately results in failures in organizations future plans of expansions and target achievements (Gelbrich, 2010; McCarthy et al., 2016; Perko et al., 2014; Berry, 2007; Schraeder, 2012; Gago-Rodríguez and Naranjo-Gil, 2016; Sarkar and Sreejesh, 2014; Låstad et al., 2016; Jyoti, 2015; Saintives and Lunardo, 2016). Negative emotions are also caused by various workplace issues, including aggression, anger, suspicion, shame, guilt, compassion, poor leaderships, poor management and uncertain future of employees’ jobs in uncertain environments (Ford et al., 2016; Booth et al., 2017; Bobko et al., 2014b; Creed, 2014; Hazen, 2008; Strauss et al., 2016; Stensaker et al., 2016). Chaotic recognition and disorderly hierarchicalization of the most critical employees’ behaviors, by the organizations during strategic planning of a merger, increases the chances of merger failure. This problem results in the involvement of management into certainly uncalled for issues subsequently. A rather detailed representation of literature review on relevant negative emotional behaviors of employees is given below for understanding and conceptualization.

1. Fear is an unpleasant emotion or thought that you have when you are worried by something negative is happening or might happen. To sense upset that somewhat very shocking has occurred or will occur which can be unsafe (Jennifer and Dacher, 2001).

2. Anxiety defines sorrow or nervousness of mentality origin by fear of threat or hard luck e.g. employees feeling anxiety about losing job (Alexander et al., 2001). Buiter (2013) has found adverse effect of merger on employees’
anxiety. Clercq et al. (2018) have also found a significant positive relationship between organizational functioning and job-related anxiety. In connection to the mergers, similarly organizational functioning ambiguity perceive by employees leads to greater job-related anxiety.

3. Frustration is the source of constant worry. It begins when one's enthusiasm to attain a preferred objective is barred. For example, a worker desires to come to end a report before the ending of the working day but feels that somewhat or the others stay break up him/her at work, this can take him to frustration (Elizabeth, 1997), or employees are expected to meet the targets with insufficient resources (Sassi et al., 2015). Khan et al. (2013) asserted that negative emotions have positive impact on workplace aggression that often leads to frustration.

4. Depression is a psychological state illustrated by harsh thoughts of misery and insufficiency. Failure usually comes with a short of vigor and curiosity in life (Kathryn et al., 2004). It is often observed that employees experiencing depressive symptoms during merger, therefore role of transformational leader contribute in reducing employees’ susceptibility to depression (Perko et al., 2014).

5. Apathy is a behavior that shows no interest or energy and shows that someone is unwilling to take action, especially over something important. Sensation or performing to be deficient in curiosity or distress and unconcerned (Philippe et al., 2006). These emotions are emerged among employees in process of merger as they don’t buy this idea, having no clarity of goals and benefits merging organizations and employees would be getting. Research has linked goal setting theory and employees’ apathy that foster an environment wherein pro-social behavior are encouraged among employees (Thomson and Niekerk, 2012).

6. Job Insecurity is the position being exposed to risk or hazardous; lack of safety and worrying of losing job (Greenhalgh and Rosenblatt, 2010). Job insecurity has been dealt as an ad hoc approach. Thus, it is the incapacity to uphold preferred stability in a danger (Susan et al., 1989). Garrido Vásquez (2019) found that job insecurity varies over the period of time. High turnover of talented human resource has compelled organization to devise retention strategies to intact competent and knowledgeable workers. There are two important studies address the issues of individual job insecurity, job insecurity climate, incivility and deviant behavior of employees. Lastad et al. (2016) investigated relationship between individual job insecurity & job insecurity climate and concluded that job insecurity climate does not affect individual job insecurity. While findings of the later study revealed that incivility (i.e. manifestation of workplace deviance) have a positive impact on job insecurity and employee deviance i.e. violation of organizational norms (Itzkovich, 2016).

7. Aggression refers to a series of actions that can affect the cooperation of body and mental state and leads towards hurt to one or matter in the atmosphere. The phrase of aggression can take place in different behavior, as well as orally, emotionally and physically (Craig et al., 2008). Workplace aggression is negative emotions that disengaged employees to their job. Particularly, it is much needed to be considered in context of merger. The data provided the evidence of direct relationship between aggression and anger and that anger is only related to those employees who are engaged with their jobs (Ford et al., 2016).

8. Anger is a response which narrates to one's mental understanding of having been snubbed, mistreated, or deprived of. Cooperative behavior is essential for survival of an organization. Cooperation is required before entering into a context such as merger but anger can affect it. It is pertinent to mention here the findings of the Motro et al. (2016) wherein they applied lay theory (i.e. expectation-adjust cooperation according to anger) and revealed that anger decrease cooperation but it is at lowest when angry individuals are paired with other angry individuals.

9. Rage and aggression are very much linked with the society (Berry, 2007). Rage is defined as annoy or violence related with divergence coming up from uncertain conditions that employees undertaking during merger (Willis, 1995). Plethora of research has been done to investigate the customer rage and employees’ emotional behavior (McColl-Kennedy et al., 2009; Zourrig et al., 2009; Harris, 2013).

10. Feeling of Degradation is a communicative work between persons directed to transform an individual’s total identity into an identity lower than into a group scheme of social type causing demoralization in the employee (Garfinkel, 1956).
11. Distrust is a sense of disbelief about something between employees and employers. Merger is highly vulnerable, an extreme form of change and threatening to employees (Saunders and Thornhill, 2003) because failure to meet expectations produces emotion of distrust. The evidence supports that development of trust and distrust during merger is in fact play a key role in defining the future of merger (Searle and Ball, 2004). Trust and distrust are both informal controls if manage proper can improve management control and interpersonal relationship (Gago-Rodríguez and Naranjo-Gil, 2016).

12. Suspicion when merger takes place, employees may be managed by those who differ in values and culture that leads the communication gap between them and may increase their employees suspicion (Ayios, 2003). Evidence presented in the study of Luu (2017) indicated that leaders’ cultural intelligence effects on employees’ state suspicion. It claimed that better understanding of prevailing culture of unified organizations helps leaders in alleviating employees’ state of suspicion.

13. Jealousy is a sense of desiring somewhat the other individual has. The sense of being annoyed at individual because they are superior than you or they have for what you desire (Brenda et al., 2002). Jealousy is a negative emotional state resulting when individual perceives a threat of rapport of other individual of the merged organization. The authors evaluate the cognitive and emotional reactions of the customers and examine the impact of delights (Ludwig et al., 2017). It further discusses the ways to minimize the impact of jealousy.

14. Shame is a hurting sentiment of disgrace or sorrow origin by the consciousness of incorrect or imprudent behavior (Millie, 1990). Jarvis (2016) argued that emotions like shame and shaming with in institutional framework to reveal how they interact with organizational processes. In this study two factors i.e. shame and shaming are examined as drivers of institution stability and change respectively.

15. Guilt is a wrongdoing, misdeed, or infringement, particularly in opposition to their own moral, societal or ethical standard (Kugler and Jones, 1992). A successful merger demands their employees to foresee the positivity and prosperity in long term setting. However, conclusion drawn by Saintives and Lunardo (2016) that guilt is a negative self-emotion that leads people to focus on negative aspects and impedes them from seeing positive aspects.

16. Grief is a powerful, at times overpowering feeling for people. It is a usual response to failure and mutually a general and a private understanding. Person’s understanding of grief fluctuates and is subjective by nature of failure e.g. loss of job or independency lost in case of merger. O’Connor et al. (2010) claimed that little research is found which examined workplace issues associated with grief and loss. Though, Hazen (2008) has highlighted deep down understanding about grief and its consequences in workplace, still this area of study demands extensive research especially in the context of merger.

17. Compassion is central to purpose of mergers to form meaningful relationships with merged organizations’ workforce. It has been defined as a sentiment that come up when you are tackling with, a different individual or group suffering and experiencing, encouraged to lighten from that suffering (Robin, 2011). A model has been devised by Hewison et al. (2018) that highlighted the compassion of workforce towards their profession. By using thematic analysis, four themes/constructs (i.e. purpose, communication, progress and tension) are developed which characterize introduction of compassion recognition scheme. This compassion scheme can be useful in identifying how it should be viewed, implemented and acknowledged in participating organizations (Hewison et al., 2018).

18. Exhaustion is an act of use, somewhat up or status of being used up (Jeannie and John, 1983). Emotional exhaustion is a key driver of burnout factor (Gaines and Jerimer, 1983). Jyoti (2015) suggested that high performance human resource practices have significant impact on emotional exhaustion. Alola et al. (2019) revealed that emotional exhaustion influences on employees outcomes. Work/family balance has a serious concern of the management, especially in time of merger process. Glaser and Hecht (2013) claimed that there is considerable evidence of relations between work/family conflicts and emotional exhaustion.

The above representation of literature foresee total eighteen negative emotional behaviors in the environment of mergers, the same were investigated further.

3. Methodology
The study follows interpretivism as research philosophy with deductive approach. Overall design comprises of literature review, ISM and MICMAC analysis. Population under study is employees affected by organizational mergers. It is a different type of study which requires a unique appropriate sampling design to ensure that actual observed elements of population truly represent population under study. It has more depth than its breadth, therefore, non-probability sampling design is suitable.

### 3.1 Interpreteive Structural Modeling (ISM)

ISM was introduced by Warfield (1973) which is competent to develop a structural model. It is a management decision tool which prioritizes multi-criteria decision and a hierarchalization technique which provides in depth insights in inter-factor relations combining objective and subjective methods (Kannan et al., 2009). It is applied in wide variety of areas (Sushil, 2017) because it uses relativelyless data and provides more information as compare to other techniques (Chidambaranathan et al., 2009). It is a visible, well defined, graphical model representation using reachability and transitive inferences through transformation of binary matrices. ISM is applied when there is no priory theoretical framework and there is a need to raise awareness and elucidate conundrum situations. Sampling design for this study consists of panel of experts. In order to embark on panel of experts a list of 426 merged organizations from website of Competition Commission of Pakistan (CCP, 2019). Chief executives of these organizations were approached in study as informants about ‘experts on mergers.’ Logic of inviting chief executives as informants is that they are in a better position to point out a person which has expertise/experience of mergers. It involved a lot of effort to reach these organizations and/or informants. Effort started with obtaining telephone numbers and addresses of organizations from their official websites and telephone directories. Contacts were made through telephones, emails and personal visits. Reaching to chief executives as informants and then further nominating expert by informant was a hard task. The researchers were able to establish contacts with 40 chief executives only. They were requested to recommend experts from within employees of their organization on the basis of: i) theoretical knowledge, ii) practical experience of mergers and iii) overall working experience of more than 10 years (Li et al., 2019). It took almost 20 days to elicit list of experts from informants.

### 3.2 Panel of Experts

Panel of expert means group of people having expertise related to the problem. Their opinions and mental models are of great help to structure the problem. Appropriately formed panel of experts, admittedly, outperformed statistical groups (Ranjbar et al., 2012). Usually, panel consists of 15 to 30 experts (Clayton, 1997; Khan and Khan, 2013). In current study, experts are people, who have practically experienced mergers. Profile of the experts participated in study is presented in Table 1.

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<td></td>
<td>14 – 18 Years</td>
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<td>Above 22 Years</td>
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</table>

### 3.3 Instrument & Data Collection

A matrix type questionnaire was prepared for data collection. In order to test questionnaire, a pilot study was conducted on convenience basis. Pilot testing was carried out with 6 respondents different from experts on panel. Panel comprised of experts recommended by informants. They recommended total 40 experts, therefore, 40 questionnaires were distributed with a request to participate in research. Initially, questionnaires were sent through emails and Trausum Courier Services (TCS) expecting response via mail. But, on no response after considerable lapse of time, researchers followed-up through personal visits time and again. After lot of efforts and discussions, accent of only 22 experts was received, out of which 20 actually participated. Hence panel consisted of 20 experts. Since, this is an acceptable size of panel, therefore, study was proceeded (Hoffman et al., 2007; Khan and Khan,
Data collection process took more than 45 days. The data was elicited on a structured \( \frac{n(n-1)}{2} \) matrix questionnaire in which every expert was asked to elect one of the alternatives (V, A, O, X) for every paired relation (Alawamleh and Popplewell, 2011). The data was combined into one matrix by using the rule ‘minority give way to majority’ (Sushil, 2012; Li et al., 2019).

### 3.4 Analysis Technique

ISM has three main steps namely: i) identify representative elements of target issue, ii) establishing and examining contextual relationships and iii) partitioning them into a model and its review. Panel was involved in all three steps of ISM (Raeesi et al., 2013; Vasanthakumar et al., 2016). Study follows step wise rules of ISM devise by Thakkar et al. (2008) appended below as Figure 1.

**Figure 1: Rules for Developing SSIM and Reachability Matrix (Thakkar et al., 2008)**

#### Rules for Structural Self-Interaction Matrix (SSIM)

It establishes a contextual relationship of “leads to” between criteria. Four symbols are used for the type of the relation that exists between two sub-variables under consideration: \( V \) for the relation from \( i \) to \( j \) but not in both directions; \( A \) for the relation from \( j \) to \( i \) but not in both directions; \( X \) for both direction relations from \( i \) to \( j \) and to \( j \); and \( O \) if the relation between the variables does not appear valid.

#### Rules for Reachability Matrix

The SSIM has been converted into a binary matrix, called the initial reachability matrix by substituting \( X, A, V, \) and \( O \) by 1 and 0. For example, if criteria \( i \) leads to criteria \( j \) and criteria \( j \) leads to criteria \( k \) then criteria \( j \) must lead to criteria \( k \). The process of bridging these gaps is known as transitivity check. Rules in this regard are summarized as below:

- Entry in SSIM \((i, j)\): \( V \), \( A \), \( X \), \( O \)
- Entry in reachability matrix \((i, j)\): 0, 1

Step I-Structural Self-Interaction Matrix (SSIM): It includes pairwise analysis among factors and developed contextual relationships based on experts’ survey. Data is arranged into a matrix (Table 2) following the rules in Figure 1.

**Table 2: SSIM**

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</tbody>
</table>

Step II-Reachability Matrix: Initial reachability matrix (Table 3) is constructed as per the rules given in Figure 1.

**Table 3: Initial Reachability Matrix**

<table>
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<th></th>
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</tr>
</tbody>
</table>

Driving Power
Initial reachability matrix (Table 3) is transformed into final reachability matrix (Table 4).

**Table 4: Final Reachability Matrix**

|    | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | Driving Power |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|
| 1  | 1*  | 1  | 1*  | 1  | 0  | 1*  | 1  | 1*  | 1  | 0  | 1*  | 1  | 1*  | 1  | 0  | 1*  | 1  | 1*  | 1  |
| 2  | 1*  | 1  | 1  | 1  | 1*  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1  | 1*  |
| 3  | 1*  | 1*  | 1  | 1  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1*  | 1  | 1  | 1*  |
| 4  | 1*  | 1*  | 1  | 1  | 1*  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1*  | 1  | 1  | 1  | 1*  | 1  | 1  | 1*  |
| 5  | 1*  | 1*  | 1  | 1  | 1*  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1*  | 1  | 1  | 1  | 1  | 1  | 1  | 1*  |
| 6  | 1*  | 1*  | 1  | 1  | 1  | 1  | 1*  | 1  | 1  | 1  | 1  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1  | 1*  |
| 7  | 0   | 1*  | 0  | 0  | 1  | 0  | 1  | 1  | 1  | 1  | 0  | 1*  | 1  | 0  | 1*  | 1  | 1  | 1*  |
| 8  | 1*  | 1*  | 1*  | 1  | 0  | 1  | 1*  | 1  | 1  | 1  | 1  | 1*  | 1  | 1  | 1  | 1  | 1  | 1  | 1*  |
| 9  | 1*  | 1*  | 1*  | 0  | 0  | 1  | 1*  | 1  | 1  | 1  | 1  | 1  | 1  | 1*  | 1  | 1  | 1  | 1  | 1*  |
| 10 | 1*  | 1  | 1*  | 1  | 1  | 1  | 1  | 1*  | 1  | 1  | 1  | 1*  | 1  | 1  | 1*  | 1  | 1  | 1*  |
| 11 | 1*  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1*  | 1  | 1  | 1  | 1  | 1  | 1*  |
| 12 | 1*  | 1  | 1*  | 1  | 0  | 1  | 1*  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 0  | 1*  | 1  | 1  | 1*  |
| 13 | 1*  | 1*  | 1*  | 1  | 1*  | 1  | 1*  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 0  | 1*  | 1  | 1  | 1*  |
| 14 | 1*  | 0  | 1*  | 1*  | 1  | 1*  | 0  | 0  | 1  | 1*  | 1  | 0  | 1*  | 0  | 0  | 1*  | 0  | 0  | 1*  |
| 15 | 0  | 1*  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  |
| 16 | 1*  | 1  | 1*  | 1*  | 1  | 1*  | 1  | 1  | 1  | 1  | 0  | 0  | 1  | 1*  | 1  | 1  | 1  | 1  | 1*  |
| 17 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  |
| 18 | 1*  | 1  | 1*  | 1  | 0  | 1  | 1*  | 1*  | 1  | 1*  | 1  | 0  | 1  | 1*  | 1  | 1  | 1  | 1  | 1*  |
| Dependence | 15 | 16 | 15 | 14 | 15 | 14 | 16 | 14 | 16 | 17 | 14 | 16 | 16 | 17 | 16 | 17 | 17 | 16 | 13 | 16 | 16 |

Step III- Level Partitions and Conical Matrix: Behavior wise level partitions of all emotional behaviors are calculated, however, conical matrix was skipped being optional (Sushil, 2012). Summary of iterations is given below (Table 5).

**Table 5: Iterations**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Reachability Set</th>
<th>Antecedent Set</th>
<th>Intersection Set</th>
<th>Level</th>
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</table>
3.4 ISM Model of Emotional Behaviors

ISM is a management decision technique that structures a complex system into a simple model (Thakkar et al., 2005). It identified, analyzed and ranked complex nature of relationships between emotional behaviors and resultantly rank them in order of their magnitude (Figure 2). According to norms of ISM, factors (emotional behaviors in this study) occupy at bottom level of the model are the most significant factors and factors occupy at highest level are the least critical factors which have been hierarchicalized and represented in a levelled model (Figure 2).

Figure 2: ISM Model of Emotional Behaviors

Upon uncovering the nodes, job insecurity (6), feeling of degradation (10) and jealousy (13) occupy Level IV (i.e. bottom level), hence, are the most critical behaviors. Management of both merged and acquired organizations should pay maximum attention to these behaviors as they drive to all other counterparts. Fear (1), frustration (3), depression (4), apathy (5), anger (8) and grief (16) occupy Level III, lesser severe than Level IV but still have moderate affect than that of Level IV. Anxiety (2), aggression (7), rage (9), distrust (11), suspicion (12), guilt (15) and exhaustion (18) occupy Level II, whereas, shame (14) and compassion (17) occupy Level I (i.e. highest level) hence are relatively less critical but necessary for effectiveness. From the careful observations it can be found that at Level IV job insecurity (6) and feeling of degradation (10) has bilateral relationship. Similarly, frustration (3) and depression (4) at Level III have bilateral relationship. Rage (9) and distrust (11); guilt (15) and exhaustion (18) at Level II also have bilateral relationship. The final model was also presented to experts for checking logical, theoretical, conceptual, or directional inconsistencies (Raeesi et al., 2013; Vasanthakumar et al., 2016) and minor modifications were made accordingly.

3.5 Cross Impact Matrix Multiplication Applied to Classification (MICMAC)
It works on multiplication properties of matrices which is developed by Godet (1986) and fine-tuned by Godet et al. (1999). Main purpose of MICMAC analysis is to cluster factors (emotional behavior in this case) into four categories (i.e. autonomous, independent, linkage and dependent) based on their dependence-driving power (Raj et al., 2008). A graph is plotted wherein driving power is shown on vertical axis (weak to strong) and dependence power is shown on horizontal axis (weak to strong) Figure 3. All factors are plotted on co-ordinates according to their driving and dependence powers.

**Figure 3: Driving-Dependence Power Diagram**

Autonomous: First quadrant of MICMAC indicates autonomous, having weak driving as well as dependence power. Fourteen behaviors fall in this quadrant such as: fear (1), Anxiety (2), frustration (3), depression (4), apathy (5), aggression (7), anger (8), rage (9), feeling of degradation (10), suspicion (12), jealousy (13), shame (14), guilt (15) and compassion (17). These behaviors are quite separated from overall merger environment but they have few very strong links with model and it is not possible to remove them from the system. Hence, they are pretty important for merger environment.

Independent: Second quadrant represents independent, having strong driving and weak dependence power. Job insecurity (6) and distrust (11) are identified as key behaviors. Careful handling of these behaviors is required for success of merger as they are capable of causing other behaviors as well.

Linkage: Third quadrant indicates linkage, having strong driving as well as dependence power which require careful considerations as they are unstable variables. No linkage behaviors are identified in this quadrant meaning thereby all behaviors are stable not agile and have no feedback effect.

Dependent: Fourth quadrant represents dependent having weak driving and strong dependence power. Grief (16) and exhaustion (18) are found to be dependent behaviors as they are influenced by other behaviors, hence relatively are less critical for mergers.

4. Discussion

Aim of study is to analyze disordered chaotic hierarchy of employees’ emotional behaviors that result in failed mergers. The study uses in depth literature review for identification of behaviors, ISM for exploring causal relations and MICMAC analysis for classifying. The study in hand is different from contemporary research since it pertains to arrest the likelihood of problem whereas the contemporary studies pertain to mitigate severity of problem as
aftermath. Few of the issues addressed in contemporary research are appended for comprehension of the readers e.g. post-merger integration (Ager, 2011; Al-Laham et al., 2010; Buiter, 2013; Bansal, 2016; Sanan et al., 2017), knowledge transfer (Casal and Fontela, 2007; Sarala et al., 2016), consequences (Diaz, 2015; Graebner et al., 2017), momentum and serendipity (Graebner, 2004), literature review (Haleblian et al., 2009; Yaghoubi et al., 2016), managing emotions (Kusstatscher and Cooper, 2005; Kusstatscher, 2006), evaluating success (Leslie et al., 2018), effective acquisition and survival (Manea and Ali, 2017), anxieties and worries of staff (Senior et al., 2017) and role and action of external stakeholders (Stensaker et al., 2016). The study uses ISM with a blend of MICMAC analysis. Apart from being ever first study using ISM it gives useful contrast of structural methodologies results of which are summarized as per Table 6.

Table 6: Summary of Results

<table>
<thead>
<tr>
<th>No.</th>
<th>Behavior</th>
<th>Driving</th>
<th>Dependence</th>
<th>Effectiveness</th>
<th>Cluster</th>
<th>Level</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fear</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>Autonomous</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Anxiety</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>Autonomous</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Frustration</td>
<td>7</td>
<td>8</td>
<td>-1</td>
<td>Autonomous</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Depression</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>Autonomous</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Apathy</td>
<td>6</td>
<td>7</td>
<td>-1</td>
<td>Autonomous</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Job insecurity</td>
<td>11</td>
<td>4</td>
<td>7</td>
<td>Independent</td>
<td>IV</td>
<td>Key factor</td>
</tr>
<tr>
<td>7</td>
<td>Aggression</td>
<td>4</td>
<td>7</td>
<td>-3</td>
<td>Autonomous</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Anger</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>Autonomous</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Rage</td>
<td>5</td>
<td>7</td>
<td>-2</td>
<td>Autonomous</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Feeling of degradation</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>Autonomous</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Distrust</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>Independent</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Suspicion</td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>Autonomous</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Jealousy</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>Autonomous</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Shame</td>
<td>3</td>
<td>5</td>
<td>-2</td>
<td>Autonomous</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Guilt</td>
<td>4</td>
<td>7</td>
<td>-3</td>
<td>Autonomous</td>
<td>II</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Grief</td>
<td>8</td>
<td>11</td>
<td>-3</td>
<td>Dependent</td>
<td>III</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Compass</td>
<td>1</td>
<td>4</td>
<td>-3</td>
<td>Autonomous</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Exhaustion</td>
<td>6</td>
<td>10</td>
<td>-4</td>
<td>Dependent</td>
<td>II</td>
<td></td>
</tr>
</tbody>
</table>

As per results of ISM, dependent factors are 14 and 17 whereas in MICMAC dependent factors are 16 and 18, by the same token key factors as per ISM are 6, 10 and 13 whereas, in its counterpart key factors are 6 and 11. Factor number 6 (job insecurity) is the key factor both in ISM and MICMAC since it has high effectiveness (driving-dependence power i.e. 7), therefore, should be taken with high care while planning a merger.

5. Conclusion

Emotional aspects of employees cannot be ignored during planning and execution of mergers, therefore, scientifically handling of employees’ emotions is imperative for successful mergers. Objective of the study is to analyze disordered chaotic hierarchy of emotional behaviors of employees. The research used in depth literature review for identification of behaviors, ISM for exploring causal relations, analyzing interactions & prioritizing them and MICMAC analysis for classifying on basis of driving-dependence power. ISM uses the data elicited from panel of experts instead of statistical groups. Panel consists of 20 experts. Experts were recruited using criteria: i) theoretical knowledge, ii) practical experience of mergers and iii) overall working experience of more than 10 years.

Eighteen emotional behaviors were identified using literature discourse namely fear (1), anxiety (2), frustration (3), depression (4), apathy (5), job insecurity (6), aggression (7), anger (8), rage (9), feeling of degradation (10), distrust (11), suspicion (12), jealousy (13), shame (14), guilt (15), grief (16), compassion (17) and exhaustion (18). Findings of the ISM are job insecurity (6), feeling of degradation (10) and jealousy (13) occupy Level IV (i.e. bottom level), therefore, are most critical requiring maximum attention. Fear (1), frustration (3), depression (4), apathy (5), anger (8) and grief (16) occupy Level III, relatively lesser critical than Level IV but still have moderate severe affect. Anxiety (2), aggression (7), rage (9), distrust (11), suspicion (12), guilt (15) and exhaustion (18) occupy Level II, which have moderate mild affect. Shame (14) and compassion (17) occupy Level I (i.e. highest level) therefore are relatively less critical but essence of effectiveness. Careful examination of this model reveals that at Level IV job insecurity (6) and feeling of degradation (10) has bilateral relationship. Similarly, frustration
(3) and depression (4) at Level III have bilateral relationship. Rage (9) and distrust (11); guilt (15) and exhaustion (18) at Level II also have bilateral relationship.

Findings of MICMAC show that fourteen behaviors (1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15 and 17) are classified in autonomous cluster that are separated from structure but have few strong links and are pretty important. Two behaviors (6 and 11) are classified in independent cluster therefore are key behaviors. In fact, they have high driving power but less dependence. They are capable of causing other behaviors. No behavior is classified as linkage meaning thereby all the behaviors are stable and have no feedback effect. Two behaviors (16 and 18) are classified in dependent cluster they are influenced by other behaviors, hence relatively are less critical for mergers. It is noteworthy that job insecurity (6) is the key factor indicated both by ISM and MICMAC, therefore, it should be dealt with extreme care in merger environment.

This study furnishes exhaustive understanding of behaviors concerning merger environment. It contributed: i) ISM model (Figure 1), ii) driving power and dependence power diagram (Figure 2), iii) unveiled causal relationships and developed predictive causal links among variables and iv) arranged variables in different levels according to criticalness. It will help planners of mergers to identify which behavior(s) should be addressed on priority. The study gives a fair insight of inter-behavior and intra-behavioral categories and is going to assist the merger planners, employees of merging companies, regulators, academicians and society at large to understand relationships of different behaviors. Employees’ HR plan, considerate of these critical emotional behaviors, will embrace success but ignoring critical behaviors in planning stage might result in failure. The study also has some limitations. Firstly, study has been carried out in context of Pakistan, further studies may be conducted in context of other countries. Secondly, study is based on heterogenous panel of experts which may be replicated in homogeneous panel of experts in the context of some specific sector. Thirdly, the study uses interpretive paradigm of philosophy and does not quantify the relations, therefore, future studies may be conducted using quantitative techniques of analysis like SEM, ANP, AHP, etc. Fourthly, some behaviors could have not been accounted for, therefore, in future studies rather thorough literature review should be done and other stakeholders may also be included to enhance the frontiers of research.

References
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Determinants of Marital Flourishing among Married Individuals: An Asian Perspective

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ARTICLE DETAILS

ABSTRACT

Marital flourishing is a concept used to assess optimal quality of a marital relationship. Despite abundance of research to understand the factors underlying a happy and satisfying relationship, the determinant of a flourishing marital bonding remains limited. The present study focuses communal and emotional processes as possible causes underlying beneath a flourishing marital relationship. A data from 569 wives and 433 husbands from Pakistan was collected and analyzed through regression analysis. Findings demonstrated that expression of emotions negatively predicts relationship and individual dimension of marital flourishing. Moreover, positive communal orientation positively predicts individual dimension of flourishing. While, negative communal orientation negatively predicts relationship dimension of marital flourishing but positively predicts individual dimension of relationship flourishing. Gender wise analysis of the study variables exhibits that Asian wives are high in marital flourishing as compared to Asian husbands. Asian husbands show high level of negative emotional expressivity and negative communal orientation as compared to the Asian wives. The study signifies the determinants of marital flourishing thereby, highlighting the role of emotional and communal processes within Asian marriages. Findings of study are being discussed examining possible universal and culture-specific aspects of marital flourishing from indigenous Asian perspective.

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Keywords: Marriage, Flourishing, Emotion Expressivity, Communal Orientation, Gender

JEL Classification: D91, J10, J12, J16

1. Introduction

Researchers have become progressively attracted in the construct of flourishing (Diener et al. 2010; Keyes 2002; Huppert & So, 2013; Seligman, 2011). Regardless of the fundamental focus on flourishing in positive psychology research (Rose 2008; Seligman 2011), merely handful of researches have explored predominance of flourishing within intimate relationships. In spite of the fact that relationship scientists have demonstrated a number of studies explaining the factors underlying marital happiness and marital satisfaction, the concept of marital flourishing, however, integrates a more elaborate concept of relationship well-being and happiness (Fowers & Owenz, 2010).

As stated by Fowers & Owenz, (2010), flourishing marriage is characterized by husband’s and wife’s meaningful activities not comprising of just seeking satisfaction but also meant to attain understanding, development and positive expression of self. Marital flourishing has also been conceptualized as an intimate relationship...
characteristic of relationship surviving as well as relationship flourishing ingredients. For instance according to one research, communication patterns, support for the partner and quality time spent together has been regarded as key factors to influence husband’s and wives’ flourishing ((Beach, et al., 1996; Blanchard et al., 2009). Similarly, Gottman (1999) has found that together with specific interactional styles, the way a couple manages conflict is central for marital success and satisfaction. Ziv and Gadish, (2010) found that the ability to use humor and affection might result in higher marital satisfaction than if there was lack of humor or affection during conflict. However, indigenous conceptualization of flourishing (Psychological Flourishing Scale; PFS) integrates multiple determinants of marital flourishing including gratitude (Gordon, Arnette, & Smith, 2011), capitalizing on positive events (Emmons & McCullough, 2003; Watkins et al., 2003), received social support from the partner (Barry, Bunde, Brocke, Lawrence & 2009), emotional sensitivity for the spouse (Driver & Gottman, 2009), appreciation and acknowledgement (Mirgain & Cordova, 2007), forgiveness for the partner (Askari 2016), sexual intimacy and communication patterns (Hana Yoo, Bartle-Haring, Day & Gangamma, 2014).

2. Emotional Expressivity and Communal Orientation as Determinants of Marital Flourishing

Within monarchy of empirical evidences studying relationship happiness, role of emotions and communal tendencies has been highlighted by numerous relationship researchers. Expression is an integral characteristic of emotions and functions as a communicative purpose (Guerrero, Andersen, & Trost, 1998). Possibly due to significance of expressivity of emotions, there exist numerous verbal and non-verbal networks for emotional expressivity. Profusion of emotional words in various languages highlights the implication of verbal communication of emotions. Emotions could also be expressed through nonverbal mediums such as body language, facial expressions and vocal articulations (Planalp, 1998; Gross, 1999).

Substantial body of research has rendered mixed findings regarding expression of emotions within married relationship. Several relationship scientists have illustrated that spouses’ nature of emotional expressivity is significantly correlated with the narrations of their marital happiness (Carstensen, Gottman, & Levenson, 1995; Gill, Christensen, & Fincham, 1999). On the other hand, according to Rauver & Volling, (2005), expression of positive emotions has limited impact on marital functioning. Similarly, Yediri & Hamarta, (2015) has found no significant impact of positive emotions on marital functioning. While, another study exhibits that negative correlation exist between verbal expression of positive emotions and relationship satisfaction among married individuals (Simon & Nath, 2014). The fact is worth mentioning here that most of the literature on emotions has been predominantly focusing western cultures and depicting contradictory findings in terms of emotion expressivity and quality of marital relationship.

As the preceding discussion implies, communal orientation speculated as the determinant of marital flourishing, is referred by Cark et al., (1987) as the predisposition to be considerate to the problems of others and to help them predominantly in response to their needs and out of concern for their wellbeing, tends to be amongst the most important determinants of satisfaction in variety of relationships (Jones, & Vaughan, 1990; Thompson & Deharrport, 1998). Individuals with enhanced level of communal tendencies are dispositional to offer care to individuals extending from those within their close relationships to strangers (Bryan, Hammer, & Fisher, 2000; Williamson & Schulz, 1990). Communally oriented individuals demonstrate numerous interpersonal abilities that enable better social bonds, including being emotionally expressive within close relationships (Clark & Finkel, 2005). To date, however, there is scarcity of scientific evidences that focus on communal orientation as determinant of flourishing among married individuals. Little experiential researches are present that inspects whether a dispositional tendency to care is really related to experiencing higher quality relationships across marital context or not. Hence, in the present research, we examined whether communally oriented people do really live through married relationships high in flourishing or not.

Nevertheless, the literature mentioned above predominantly concentrates on marital flourishing from the reference of Western contexts. In latest ages, however, there is increasing interest in marital quality and its determinants from non-Western angle. This extension of empirical studies on marital quality into non-Western settings rears new challenges and prospects for research on marital flourishing.

2.1 The Present Investigation

The present exploration is, hence, an empirical contribution towards the development of research on marital quality into non-Western settings by discovering the determinants of marital flourishing within Pakistan. In this study, we
observe the determinants of flourishing within marital relationship, in a national representative sample of husbands and wives in Pakistan. We examined how distinct patterns of emotional expressivity (positive and negative) and multiple communal orientation characteristics are associated with marital flourishing. Studying this discrepancy is important related to the influence of positive and negative expression of emotions on marriage because the two have been found to have very different associations with the marital relationship. Moreover, the study also aimed to address the inconsistent findings regarding nature of emotions expressed and pattern of communal orientation in terms of marital flourishing of individuals belonging to Asian background. In present study, we, likewise, intend to expand our understanding of communally oriented people’s experiences across their marital relationships by focusing their emotional communication with their partners. Diminutive array of studies has observed emotions, beyond general positivity and negativity related with having a communal orientation and subsequently having an impact on marital flourishing. We, therefore, anticipated a stronger relationship between expression of emotions and communal orientation as predictor of marital flourishing.

Thus, structuring upon existing body of empirical literature, we derived a number of hypotheses that were tested to explore the role of proposed determinants in influencing marital flourishing. We anticipated that communally oriented people would experience enhanced positive emotion in daily life, which consecutively combine to influence the level of marital flourishing among husbands and wives. Finally, we explored dissimilarities and likenesses regarding gender, marital flourishing expression of emotions and communal orientation between husbands and wives. Moreover, according to our latest knowledge, this is the leading study to examine the relationship between the emotional and communal processes as key variables that could influence the flourishing of married relationship.

To recapitulate, the science of flourishing, particularly the marital flourishing is still in its early stages in Asian societies. Thus, the purpose of the current investigation is to contribute to the science of relationship flourishing by gauging the factors underlying marital flourishing of Asian married sample.

The Key Objectives of the Study are:
• To analyze the role of Emotion Expressivity and Communal Orientation affecting the level of Marital Flourishing among Asian married individuals.
• To analyze gender differences in terms of marital flourishing, emotion expressivity communal orientation among Asian married individuals.

Hypothesis of the Study
• H 1 Positive Emotion Expressivity positively predicts relationship dimension of Marital Flourishing.
• H 2 Positive Emotion Expressivity positively predicts individual dimension of Marital Flourishing.
• H 3 Negative Emotion Expressivity negatively predicts relationship dimension of Marital Flourishing.
• H 4 Negative Emotion Expressivity negatively predicts relationship dimension of Marital Flourishing.
• H 5 Positive Communal Orientation positively predicts individual dimension of Marital Flourishing.
• H 6 Negative Communal Orientation negatively predicts relationship dimension of Marital Flourishing.
• H 7 Negative Communal Orientation negatively predicts individual dimension of Marital Flourishing.
• H 8 Husbands and Wives would differ in their level of Marital Flourishing and Expression of Emotions.

2.3 Method
2.3.1 Participants
Our participants consisted of 433 (43.2%) husbands and 596 (56.8%) wives between the ages of 20 to 70 years. All the participants of the study were volunteers and were not paid for their participation. Participants met the following inclusion and exclusion criteria.

Inclusive Criteria (a) having married for not less than one year (b) living together with the spouse; c) having finished high school, and (c) having minimum one child either son or daughter.
Exclusion Criteria (a) married once but no longer living with the spouse; (b) divorced or separated; (c) having no child.

2.3.2 Instruments
Materials of the study included self-report measures to assess marital flourishing, expression of emotions and communal orientation of married individuals. Both emotional expressions and communal orientation were primary
independent variables whereas, marital flourishing was dependent variables. Materials included the following scales.

Assessment of demographic variables: Demographic variable were assessed through demographic data sheet that required the information about Husbands’ and wives’ age, years of education, professional experience, duration of marriage (in years), family system, number of children, age of the youngest child, nature of marriage, and general health.

Psychological Flourishing Scale (PFS; Fahd & Hanif, 2017), a 39 item questionnaire measuring flourishing ingredients of the married relationship. PFS is developed for use with married individuals to assess the level of their relational flourishing. The questionnaire consists of two subscales that measures psychological flourishing of husbands and wives in terms of two dimensions; relationship dimension (21 items) and individual dimension (18 items). Relationship dimension of PFS includes questions about mutual understanding for the spouse, friendly relations with the partner, appreciation for the partner, capitalizing on positive events etc. whereas, the individual dimension includes items about one’s personal qualities like sense of humor, level of self-confidence, emotional stability, optimism etc. Each item is scored as 5 = strongly agree, 4= agree, 3= neutral, 2= disagree, 1= strongly disagree. Responses are summed up to get a total score. High level of marital flourishing is illustrated by high scores on the scale. The two subscales of PFS have shown good reliability (relationship dimension, $\alpha = .86$ and individual dimension, $\alpha = .80$).

Berkeley Emotion Expressivity Questionnaire (BEQ, Gross & John, 1995) comprises of 16 questions. Three subscales of BEQ measured positive expressivity, (4 items), negative expressivity (6 items), and strength of Impulse reactivity (6 items). In the present study, BEQ evaluated multiple facets of husbands and wives affective dimensions. The BEQ produces a total score in addition to 3 subscales measuring Impulse Strength, Positive Expressivity, and Negative Expressivity. Instances of items from measure include: “I sometimes cry during sad movies;” “I’ve learned it is better to suppress my anger than to show it”; “My body reacts very strongly to emotional situations.” BEQ have been translated in Urdu for the use in current research following Chen & Boore, (2010) translation guidelines. The data of the present study have illustrated internal consistencies of three subscales of BEQ ranging between $\alpha = .65$ to $\alpha = .80$.

Communal Orientation Scale (COS; Clark et al., 1987): 14 items of COS evaluates inclination to be responsive and sharing with the partner. Scale was translated into Urdu language. Subscales were articulated for the present research, named as communal orientation positive (COP) and communal orientation negative (CON). Item 3,4,6,9,10,12,13 measured the negative communal orientation and item 1,2,5,7,8,11,14 measured positive communal orientation. Reliability of the two subscales, computed through Cronbach Alpha ($\alpha$) reliability yields satisfactory reliability (COP=. 71 and CON=.72) on data of current study.

2.3.3 Design and Procedure
The research design of this study was cross sectional in nature. Each independent variable had two levels (positive emotional expressivity and negative emotional expressivity; positive communal orientation and negative communal orientation) and whether each variable was manipulated within subjects as well as between subjects.

All the research protocols were met. Recruited participants were provided with informed consent and were debriefed about the study purpose and all ethical considerations were met. Participants were also informed that all the personal information that they would provide would be kept confidential and would be utilized for the study purpose only. The participants were selected from professional institutes, social gatherings, teaching setups, and family units. Participants were requested to participate in the research and data collection gatherings were arranged for responding of the research tools. Each gathering was commenced with the description of the study’s purpose and formal acceptance of forms stating informed consent. Married males and married females separately and individually filled research instruments; viz, it wasn’t the condition that both partners should take part in the research. Henceforth, married males and females joined the study, but not essentially both spouses. After the completion of surveys, the researchers debriefed the participants and communicated them that the study was actually looking for the expression of emotions and communal orientation predicting marital flourishing. The participants were then asked if they had any questions and thanked for their cooperation.
2.3.4 Sampling Technique
Convenient sampling technique was used in the present research and sample of husbands and wives consisted of stratum owning specific attributes (see Table 1).

2.3.4 Informed Consent
Informed consent of the participants was obtained through Informed Consent Form comprising of information about procedures, advantages and risks of participating, a description how to attain the results of research, volunteer participation, and contact information of the researchers. The objective of the current exploration was also mentioned on the informed consent form.

2.3.5 Ethical Considerations
Present research was permitted by the Institutional Review Committee at National Institute of Psychology (IRC-NIP) and all the existing ethical strictures were met.

3. Analysis of Data
Scores of the measures were organized in line with their corresponding instruction booklet and later were arranged in logs in the Statistical Package for the Social Sciences (SPSS- 22 Version). Following analysis was executed (adopting p < .05).

1 Frequencies and Descriptive for demographic features related to the study sample (Table 1).
2 Correlation to explore patterns of relationship among study variables (Table 2).
3 Linear regression to explore the prediction of emotion expressivity and communal orientation (hypothesis testing) in predicting marital flourishing (Table 3-9).
4 Independent sample t- test (Table 10) to explore gender differences related to marital flourishing, expression of emotions and communal orientation among husbands and wives.

4. Results
Results of the present research show that expression of emotions and communal orientation are significant determinants of marital flourishing of Asian married Individuals. Moreover, husbands are high in expression of negative emotions and tend to display negative communal orientation within their married bond. On the other hand, Asian wives exhibit high levels of relationship and individual aspects of marital flourishing as compared to Asian husbands.

Table 1: Socio Demographic Characteristics of Wives and Husbands

| Characteristics | Wives | | | Husbands | | |
|-----------------|-------|-----------------|-----------------|-----------------|-----------------|
| Age (in yrs)    | Mean  | SD              | Frequency (%)   | Mean  | SD              | Frequency (%)   |
| 20-30           | 35.52 | 9.58            | 226(39.7)       | 40.88 | 10.73           | 72(16.66)       |
| 31-40           | 38.52 | 10.12           | 209(36.7)       | 38.38 | 10.12           | 174(40.2)       |
| 41-50           | 41.50 | 10.23           | 98(17.2)        | 42.50 | 10.23           | 111(25.6)       |
| 51-60           | 51.50 | 10.23           | 26(4.6)         | 52.50 | 10.23           | 55(12.7)        |
| 61-70           | 61.50 | 10.23           | 10(1.8)         | 62.50 | 10.23           | 14(3.2)         |
| 71-80           | 71.50 | 10.23           | 6(0.6)          | 72.50 | 10.23           | 6(1.4)          |
| Education       | 3.27  | 1.27            | 86(15.1)        | 3.14  | 1.32            | 80(18.5)        |
| Matric          |       |                 | 60(10.5)        |       |                 | 51(11.8)        |
| Intermdite      |       |                 | 105(18.5)       |       |                 | 72(16.6)        |
| Bachelor        |       |                 | 250(43.9)       |       |                 | 187(43.2)       |
| Masters         |       |                 | 52(9.1)         |       |                 | 29(6.1)         |
| M.Phil          |       |                 | 10(1.8)         |       |                 | 9(2.1)          |
| Profession      | 1.98  | 1.06            | 215(37.8)       | 3.41  | 0.77            |                |
| Housewife       |       |                 |                 |       |                 |                |
Table 2: Bivariate Correlations among study variables (N=1002)

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>Flourishing (R)</td>
<td>1</td>
<td>.648**</td>
<td>-.250**</td>
<td>-.173**</td>
<td>.234**</td>
<td>-.086**</td>
</tr>
<tr>
<td>Flourishing (I)</td>
<td>1</td>
<td>-.356**</td>
<td>-.254**</td>
<td>.414**</td>
<td>.175**</td>
<td></td>
</tr>
<tr>
<td>Expressivity (P1)</td>
<td>1</td>
<td>.500**</td>
<td>-.300**</td>
<td>-.025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressivity (N1)</td>
<td>1</td>
<td>-.271**</td>
<td>-.115**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communal (P2)</td>
<td>1</td>
<td>.229**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communal (N2)</td>
<td>.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p<.01, Note: R= Relationship Dimension; I= Individual Dimension; P1= Positive emotionality; N1= Negative Emotionality; P2 = Positive Orientation; N2 = Negative Orientation.

The table above demonstrates the relationship among marital flourishing and its determinants. All the variables are significantly correlated with one another. Positive emotion expressivity show negative association with marital flourishing (Relationship dimension= -.25** & Individual dimension = -.17**). Negative Emotion expressivity also show negative correlation with marital flourishing (Relationship dimension = & Individual dimension = ). Communal positive orientation is negatively correlated with positive emotional expressivity(r = -.30**). Communal negative orientation is significantly negatively correlated with negative expressivity (r = -.11**).

Table 3: Linear Regression Analysis of Positive Emotion Expressivity as Predictor of Marital Flourishing (Relationship Dimension) N=1002

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R</th>
<th>R2</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO (N)</td>
<td>.25</td>
<td>.063</td>
<td>-.79</td>
<td>8.77</td>
<td>-.25</td>
<td>7.59</td>
<td>66.36</td>
</tr>
</tbody>
</table>

***p<.001, CO(N)= Communal Negative orientation; I= Individual Dimension of Flourishing.
### Table 4: Linear Regression Analysis of Positive Emotion Expressivity as Predictor of Marital Flourishing (Individual Dimension) N=1002

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R2</th>
<th>R2</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO (N)</td>
<td>.35</td>
<td>.127</td>
<td>1.12</td>
<td>8.70</td>
<td>-.35</td>
<td>11.99</td>
<td>143.84</td>
</tr>
</tbody>
</table>

***p<.001, CO(N)= Communal Negative orientation; I= Individual Dimension of Flourishing.

### Table 5: Linear Regression Analysis of Negative Emotion Expressivity as Predictor of Marital Flourishing (Relationship Dimension) N=1002

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R</th>
<th>R2</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO (N)</td>
<td>.17</td>
<td>.03</td>
<td>-.55</td>
<td>.10</td>
<td>-.17</td>
<td>-5.55</td>
<td>30.88</td>
</tr>
</tbody>
</table>

***p<.001, CO(N)= Communal Negative orientation; R= Relationship Dimension of Flourishing.

### Table 6: Linear Regression Analysis of Negative Emotion Expressivity as Predictor of Marital Flourishing (Individual Dimension) N=1002

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R</th>
<th>R2</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO (N)</td>
<td>.25</td>
<td>.065</td>
<td>-.81</td>
<td>.09</td>
<td>-.25</td>
<td>-8.29</td>
<td>68.83</td>
</tr>
</tbody>
</table>

***p<.001, CO(N)= Communal Negative orientation; I= Individual Dimension of Flourishing.

### Table 7: Linear Regression Analysis of Positive Communal Orientation as Predictor of Marital Flourishing (Individual Dimension) N=1002

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R</th>
<th>R2</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO (N)</td>
<td>.41</td>
<td>.17</td>
<td>.75</td>
<td>.05</td>
<td>.41</td>
<td>14.36</td>
<td>206.35</td>
</tr>
</tbody>
</table>

***p<.001, CO (N)= Communal Positive Orientation; I= Individual Dimension of Flourishing.

### Table 8: Linear Regression Analysis of Negative Communal Orientation as Predictor of Marital Flourishing (Relationship Dimension) N=1002

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R</th>
<th>R2</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO (N)</td>
<td>.08</td>
<td>.007</td>
<td>.14</td>
<td>.05</td>
<td>-.08</td>
<td>-2.73</td>
<td>7.47</td>
</tr>
</tbody>
</table>

***p<.001, CO (N)= Communal Negative orientation; R= Relationship Dimension of Flourishing.

### Table 9: Linear Regression Analysis of Negative Communal Orientation as Predictor of Marital Flourishing (Individual Dimension) N=1002

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R</th>
<th>R2</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO (N)</td>
<td>.17</td>
<td>.30</td>
<td>.29</td>
<td>.05</td>
<td>.17</td>
<td>5.60</td>
<td>31.39</td>
</tr>
</tbody>
</table>

***p<.001, Note: CO(N)= Communal Negative orientation; I= Individual Dimension of Flourishing.

### Table 10: Mean Differences of husbands and wives in terms of Marital Flourishing, Emotion Expressivity and Communal Orientation
Mean differences and t-test significance indicates that magnitude of negative communal orientation and negative emotional expressivity is higher among married males as compared to married females. On the other hand, married females appear to demonstrate high levels of both the dimensions of flourishing within the marital relationship.

3. Discussion
The present investigation was aimed to observe the impact of emotional expressivity and communal orientation on marital flourishing. In doing so, we extended upon empirical knowledge of how husband’s and wife’s expression of positive and negative emotions in alliance with positive and negative communal orientation differentially predicts multiple dimensions of marital flourishing.

3.1 Positive Expressivity and Marital Flourishing
The results of the current study rejects the discrepancy former relationship scientists have found between positive and negative expression of emotions (Searle & Meara, 1999; Cartensen et al., 1995) as both positive and negative expressivity negatively predicts marital flourishing. Existing literature identify favorable role that positive emotional expressivity may play in influencing spouses’ marital happiness. Relationship scientists have constantly found that high levels of spouses’ positive emotional expressivity were related with better marital happiness (Feeney, Noller, & Callan, 1994; Feeney, 2002). In contrast to the previous findings, we found astonishingly negative associations between positive expression of emotions and marital flourishing. Despite the fact that numerous researchers reveal that higher positive emotional expressivity were associated with enhanced marital satisfaction (eg. Feeney et al., 1994), we found that expression of positive emotions within the marital relationship negatively predicts marital flourishing.

Although husbands’ and wife’s flourishing within their married relationship has previously found to be positively affected by the emotions of appreciation and acknowledgement that they express to their partners (eg. Adler & Fagley, 2005), findings of the current investigation demonstrated that expression of positive emotions seem to impact marital flourishing in the negative direction. As the results currently stands that husbands and wives who express their positive emotions to their partners do not appear to experience flourishing within their married relationship. In contrast this positive expressivity seems to reduce the level of flourishing (Relationship Flourishing β= -.25 and Individual Flourishing β= -.35; p<.001).

However, results of the current study are in line with a few empirical evidences demonstrating that expression of positive emotions has either limited or no impact on functioning of married relationship (Rauver & Volling, 2005; Yediri & Hamrta, 2015). Therefore, the hypotheses (1 & 2) concentrating upon the role of positive expressivity and marital flourishing has been rejected by the data of the present study and seems to depict that components of flourishing such as communication patterns, compromises within the relationship, conflict resolution, encouragement for the spouse, friendly relations, trust on each other are likely to worsen among Asian husbands and wives as the result of their expression of positive emotions within the married relationship. Beyond this it could be hypothesized that flourishing of the married individuals would be more likely to be affected by the expression of emotions depending on the variety, intensity and magnitude of the emotions expressed. Hence, despite previous researches lucidly explaining the beneficial nature of positivity of emotions (Fardis, 2007), the present investigation invites a new debate for the scientists working on emotions as relationship flourishing factor within married relationship.

3.2 Negative Expressivity and Marital Flourishing
Speculating the link between negative expression of emotions and marital flourishing of husbands and wives (hypotheses 3 & 4), this link is in line with numerous studies documenting the relationship between negative expression of emotions and decreased levels of marital satisfaction (Feeney et al., 1994; Roberts & Krokoff, 1990; Cartensen et al., 1995; Halberstadt et al., 1995; Feeney, 2002). Overall, there appears to be sustenance for the empirical connection between negative emotional expressivity and declining levels of marital happiness, such that less martially satisfied couples involve in more negative expression of emotions. Therefore, data of the present study strengthens existing body of knowledge and found that negative emotional expressivity negatively predicts marital flourishing among husbands and wives. It has become apparent from the current findings that negative emotional expressivity is a strong determinant of flourishing (Relationship Flourishing $\beta= -0.17$ and Individual Flourishing $\beta= -0.25$; $p<.001$) and tend to reduce the level of marital flourishing. It could be interpreted from findings of the current study that husbands and wives who indulge in the expression of negative emotions like anger, anguish, and dislike for the partner seem are less likely to show intimacy, trust, compromise and conflict resolution skills within their marital relationship thereby, exhibit decreased level of marital flourishing.

### 3.3 Communal Orientation and Marital Flourishing

With regard to the wife’s and husband’s repertoire of communal tendencies linked with their marital satisfaction, we point out two categories as positive communal orientation and negative communal orientation as determinants of marital flourishing. We speculated that positive communal orientation positively predicts marital flourishing and negative communal orientation negatively predicts marital flourishing.

Data of the current study supported the scientific assumptions regarding communal orientation as the determinant of marital flourishing (Individual Flourishing $\beta= 0.41$ and Relationship Flourishing $\beta= -0.08$; $p<.001$). The findings are also in consonance with those described by Clark & Finkel, (2005); Crocker & Canavello, (2008), Canavello & Crocker, (2010); whose studies illustrated that communal orientation could lead towards the promotion of flourishing relationships through better interpersonal closeness, responsivity, and social support & encouragement for the partner within the romantic relationship. Moreover, communal behaviors between spouses could reinforce the relationship, engendering feelings of trust, intimacy, gratitude and forgiveness for the spouse. Because married individuals with high level of positive communal orientation are more focused to interpersonal needs of their partners, it would not seem improbable that they possess high level of marital flourishing. Hence, disposition of communal orientation nourishes relationship building and relationship flourishing ingredients within married bonds of Asian couples.

However, statistical figures from present study rendered partially unexpected results regarding H7 which stated that negative communal orientation negatively predicts individual dimension of marital flourishing thereby demonstrating that negative communal tendencies positively predicts marital flourishing. This finding leads to the interpretation that for husbands and wives, lack of care and responsiveness do not necessarily decrease the level of marital flourishing. Conversely, it appears that even when married individuals choose to be communally negative oriented, it could enhance the factors like intimacy, acknowledgement, capitalizing on positive events, trust, compromise, respect for the individual differences and forgiveness for the partner. Hence, contradictory to current literature on interpersonal benefits of communal orientation (Clark & Finkel, 2005), the current findings present a unique finding from the spectrum of Asian husbands and wives.

### 3.4 Study Variables in terms of Gender Differences

The present investigation was intended to broaden the understanding of the relationship among married individual’s emotion expressivity and communal orientation and their marital flourishing. For the reason that we aimed towards exploring impact of positive and negative emotional expression and communal orientation, on various aspects of marital flourishing (relationship and individual dimensions), and because we had self-reports responses from both husbands and wives, we were also able to address gender variances on the proposed study variable.

Several researchers have found that expression of emotions differ in males and females, females generally are found to be more expressive in terms of various emotions comprising of happiness, fear and sadness (Kring & Gordon, 1998; Brody & Hall, 1993; Cartensen et al., 1995). Further evidences comes from the studies by Gross & John, (1998); Fujita et al., (1991) who exhibit that women tend to express positive and negative emotions more than men. However, findings of the present study show no significant differences between wives and husbands in expression of positive emotions, while in terms of negative expression, Asian husbands are high in expressivity as compared to wives. The difference appeared statistically significant yet very small between husbands and wives. It
gives the impression that in our society, men enjoy more acceptances to be angry and anguish as compared to women, whereas women are more encouraged to express sadness as compared to men.

With respect to positive communal orientation, no gender dissimilarities were observed between wives and husbands. However, significant dissimilarities were noticed in terms of negative communal orientation whereby illustrating Asian husbands to be high in negative communal orientation as compared to wives. As a common observation in a non-western society, it could be stated that Asian men appear to nonresponsive, less sensitive and less caring within their interpersonal relationships. Nevertheless, as shown by the current findings, the negative communal orientation partially does not seem to influence marital flourishing. The findings are, however, inconsistent with existing literature that states that there are no gender variations in the exhibition of communal orientation among males and females (e.g. Buunk & Dreu, 2006).

In terms of marital flourishing, a survey conducted at national level on married adults in United States in 2000’s, have found that on average women indicated lesser levels of marital quality as compared to men (Amato, Booth, Johnson, & Rogers, 2007). Other scientific researches, though, have found no gender variances (Kurdek, 2005). Conversely, in the Asian culture we found that wives are significantly high in both Relationship Flourishing as well as Individual Flourishing as compared to husbands. Extending this notion we can interpret that Asian wives are more compromising, sacrificing, respectful towards their counter parts, friendly, encouraging for the partner and forgiving. The wives also appear to possess numerous personality traits like humor, confidence, emotional stability conflict resolution skills and effective communication patterns that serves to enhance their relationship flourishing.

Hence, the theoretic significance of the contemporary research lies not only in advancing the knowledge about the role of expression of emotions and communal orientation in influencing level of flourishing within marital frameworks, but also in contributing to a more nuanced understanding of the role of gender variations from Asian perspective. Numerous authors have questioned the extent to which expressive and communal determinants are pertinent in intimate relationships, and have speculated if being expressive and communally available sensitive to the husbands and wives for attaining a high level of marital satisfaction. (Murstein et al., 1977; Mills & Clark, 1982, 1994). Our empirical investigation offers certain clues and scientific evidences that expressivity and communal orientation in its all forms are distinctively associated with marital flourishing of Asian husbands and wives. Finally, we draw upon the experimental exploration signifying that facilitating partner leads people to experience positive emotion (Williamson & Clark, 1992), to posit it, it could probably be stated that communally oriented people feel positive emotions through caring for others and in return feel motivated to act communally towards the partner.

4. Conclusion
Key contribution of the contemporary paper is that it is paramount to show explicitly that in intimate relationships, alliance of communal dispositions and expression of emotion significantly predicts level of marital flourishing. The data received offers a considerable yardstick for understanding variables in the domain of flourishing predominantly in terms of marital relationships. Data, based on cross-sectional design and sampled in major cities of Pakistan appeared to be useful for discovering association among expression of emotions, communal orientation and marital flourishing among Asian married individuals. Current data may open future paths to tune novel research methodologies to evaluate echelons of flourishing among married sample of non-western societies.

Several limitations must be acknowledged, regardless of study’s pertinent findings. These limitations identify potential innovative researches in arena of interpersonal relations. Even though importance is being given to ethical concerns intricate within close relationships, research data gathered through self-report scales is not without potential biases. Henceforth, corresponding researches utilizing other techniques, i.e., multimodal valuations, is obligatory. Another drawback, inherent to adopted approach, is lack of relationship variables playing mediator and moderator roles that could possibly influence the direct relationship between predictors (emotion expressivity and communal orientation) and outcomes (marital flourishing). Thirdly, the data should have been collected from other countries of Asia representing eastern culture. Moreover, a qualitative exploration of the variables used in the study could possibly have rendered a more detailed understanding of marital flourishing. We should also bear in consideration that current empirical work focused on the interpersonal characteristics of marital flourishing. Supplementary variables, however, (e.g., partners’ physical and psychological health and other personal factors) should not be overlooked as significant features involved in marital flourishing. Current research, hence, does not
exhaust the investigation of the determinants of marital satisfactions, but indicates aspects that could be regarded as aspects that encourage psychological flourishing of married individuals both theoretically as well as empirically. Hence, the upcoming researchers interested to explore the determinants of marital flourishing could benefit in a way that could facilitate an empirical understanding of marital flourishing in every possible way.

Study is important for its implications for married individuals, mental health professionals and family counselors. Findings of the study are vital in explaining the importance of emotion expressivity and communal orientation to promote the flourishing of married individuals. Current empirical investigation provides hope that if mental health professionals, health psychologists, relationship scientists and counselors could successfully improve intimate relationships through scientific study of variables that makes a marital life flourishing, family well-being would progress, and children dwelling with partnered couples may find themselves in families marked by less disturbances and mental problems.

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Managing Turnover Intentions among Faculty of Higher Education Using Human Resource Management and Career Growth Practices

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ARTICLE DETAILS

Abstract
Academic institutions cannot survive and perform well without competent and committed academic staff. Therefore, it is important to address the issue of faculty members’ turnover. Focus of this study is to investigate the impact of human resource practices (salary, performance appraisal, training and development) and career growth (career goal progress, professional ability development, promotion speed, and remuneration growth) on faculty members’ turnover intention. The study has used a cross sectional survey data from a sample of 270 full time faculty members of universities in Pakistan. The Partial Least Square (PLS) two step path modeling was used to test the direct and indirect hypotheses. The results indicate that salary and performance appraisals are significantly and negatively related to turnover intention. Besides, it was found that out of four dimensions of career growth, only promotion speed and remuneration growth have significant direct relationship with turnover intention. With regards to mediated relationships, it was found that organizational commitment mediates the relationships between career growth (career goal progress, promotion speed, remuneration growth) and turnover intention. These findings suggest that in order to reduce turnover intention among faculty members, the higher education institutions must institutionalize human resource policies and practices that enhance career growth and employees’ development.

Keywords
Career Growth, Turnover Intention, Higher Education Institutions, Pakistan

JEL Classification:
I20, I23, O40,

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1. Introduction
One profession that is experiencing high turnover and become major concern of employer and researcher is the universities faculties. Employee turnover has become a major concern of employers, as it indicates an ongoing challenge for current practitioners and researchers (Abdulkareem, Chauhan, & Maitama, 2015). A study in the United States of America (U.S.A.), approximately 7.7%, from the full-time faculty members from different universities and colleges had switched from their jobs for other institutions (Abdulkareem, Chauhan, & Maitama, 2015). Among these academicians, only 30% were being retired, whereas the remaining 70% had left their institutions for a number of reasons (Tower & Watson, 2013; Abdulkareem et al., 2015). Similarly, Choi, Perumal,
and Ajagbe (2012) and Abdulkareem et al. (2015) clearly highlighted that, in 2012, approximately 19,000 professionals left their jobs from Asia-Pacific region every year, these professionals includes medical staff and lecturers from various colleges & universities. They normally hunt better opportunities in the Western countries such as; Canada, Germany, United States, and United Kingdom etc.

To overcome the problem of employee turnover, many researchers in this regard have identified that set of human resource management practices which play an important role in retaining such employees (e.g. Boo & Kalshoven, 2014, Kadiresan, Selamat, Selladurai, & Spr, 2015, Long, Ajagbe, & Kowang, 2014, Shaw et al., 2009). Indeed an employee’s relationship with an organization is shaped by some HRM Practices and career growth practices (e.g. Mohd Zin, Pangil & Othman, 2012, Raihan; 2012; Weng & McElroy, 2012) by which employees come to understand the term of their employment; How jobs are advertised (“great advancement potential, opportunity for salary growth”), the way an organization is portrayed during the recruitment interviews (“this organization provides plenty of training”), comments made in performance appraisal reviews (“keep up the good work and we will move you up”), career growth (remuneration and promotion based on time, rank or performance), all send strong messages to individuals regarding what an organization expects of them and what they can expect in return.

Hence these HRM practices are seen to play an important role as message senders, shaping terms of the psychological contracts with its employees; which leads to a strong sense of commitment from the employees. Therefore, it can be concluded that when an organization provide effective salary system, good training and development program, effective performance management system and career growth opportunities to their employees in order to improve their professional skill and growth, these employees are more ready to reciprocate by moral obligation to their organization and less likely to leave the job. Therefore, more attention should be paid on the relationship between HRM practices, career growth practices and employee turnover intention to understand the specific factors that are responsible for employees’ turnover decision.

2. Theoretical Support
Employee turnover is one of the major problems in private universities of Pakistan due to tremendous growth of the education industry and high switching of academicians as compared to public universities (Mubarak, 2012; Shahzad, 2010; Yusoff & Khan, 2013; Khan et al., 2014).

Recently majority of the empirical studies have been embarked to examine the relationship between salary, training & development, performance appraisal and turnover intention. Different conclusions have been found for example, researchers claimed that, salary, training & development and performance appraisal has a negative effect on employee turnover intention, which confirm that, when an employee perceives better salaries and good training programs for their career development and fair performance management system within the organization, they are less likely to leave the organization (Abdulkareem et al., 2015; Thirapatsakun et al., 2015; Naqvi & Bashir, 2015; Kadiresan, Selamat, Selladurai, & Spr, 2015; Rubel & Kee, 2015). Secondly, some of the studies assure that, salary is not a significant issue for turnover intention (e.g. Griffeth et al., 2000; Budhwar & Khatri 2001; Kim, 2005), training leads to better skilled and productive employees, who are more employable in other organizations, it implies that training & development has a positive relationship with turnover intention(e.g. Cheng & Waldenberger, 2013; Verhees, 2012), when performance appraisal is based on politics and become biased, then chances to leave or switch the organization by employees got increased (e.g. Aziz et al., 2013; Poon, 2004; Salleh, Amin, Muda, & Halim, 2013).

Despite all the arguments that highlight the importance of salary, training & development and performance appraisal on turnover intention, studies related to these variables has few shortcomings (Verhees, 2012; Abdulkareem et al., 2015; Aziz et al., 2013). For instance, the inconsistency between the relationship of salary, training & development, performance appraisal and turnover intention needs further research to better understand the relationship.

Furthermore, studies that link various HRM practices and turnover intention are vast. However, there is still one practice that has not been given adequate attention, and that is career growth practice. Career growth practices is important because it argued that employees are very much concerned about their possibility of career growth whether in the organizations they are currently working for or in other organizations (Karavardar, 2014). Furthermore, Karavardar (2014) also argued that to retain employees, organization should focus on career growth policies that could create psychological contract with its employees. As such, employees who expect progress and growth in their career will ultimately stay longer in the organization, which means turnover intention will become
less.

This leads second reason to conduct the study. Currently available research which relate career growth to turnover intention is quite a few in numbers and some of them has been studied by Nouri and Parker (2013), Weng and Hu (2009), Weng and McElroy (2012). However, some of them (e.g. Weng & McElroy 2012; Weng & Hu 2009) were not able to confirm this four dimensional model. Thus, the model suggested by Weng and Hu (2009), needs further testing. So that is why, the researcher used career growth as multidimensional construct to test each dimension of career growth, which is less tested before with the relationship between organizational commitment and turnover intention.

Another interesting argument which leads to third reason of conducting this study is that HRM practices such as salary, performance appraisal, training and development and career growth don’t usually affect turnover intention directly (e.g. Vandenberghe & Tremblay, 2008; Kantor, 2013; Si & Li, 2012; Raihan; 2012; Ikramullah et al., 2012; Weng and McElroy, 2012). It has been highlighted by different authors (e.g. Raihan; 2012; Weng & McElroy, 2012) that there is a missing link between HRM practices and employee outcomes. Prominent researcher such as Raihan (2012) and Weng and McElroy (2012), indicated that the relationship HRM practices such as salary, performance appraisal, training & development and career growth and turnover intention could be mediated by organizational commitment.

Researchers were previously focusing on studying direct relationship between HRM practices and turnover intention (Shaw et al., 2009). However, a more detailed review of the literature reveals a significant disagreement in their viewpoints and suggests that HRM practices are distal antecedents of employee turnover intentions (Jiang et al., 2012); while, organizational commitment is a proximal antecedent of their turnover intention (Griffeth et al., 2000). Hence, it is important to test the impact of the employee attitudes, e.g. organizational commitment, by which HRM practices usually impact on turnover intention.

As such fourth reason of conducting this study is that, due to inconsistent relationship between organizational commitment and turnover intention there is need to introduce job stress and career concern as moderating variables. For example, a study conducted by Martin and Roodt (2008), found that organizational commitment has a significant negative relationship with turnover intention, but the strength of the relationship is week because job satisfaction has a strong influence on turnover intention as compare to organizational commitment. This finding is consistent with study conducted by Ovadje (2009), within the African context also reported that organizational commitment is less important as well as not the best indicator of turnover intention. Other than that, some studies found that organizational commitment had no significant effect on employee turnover intention, for example, Verhees (2012). Hence, according to Baron and Kenny (1986), when there is inconsistent or weak relationship between independent and dependent variable there is need to introduce moderator variable to clarify the relationship.

In past the majority of the studies has used job stress as a predictor with job satisfaction, employee performance, organizational citizenship behavior, job burnout, organizational commitment and turnover intention (Javed et al, 2014; Velnampy, 2013; Salman Asad Rana, 2012; Jamal & Ph, 2011; Michael, Court, & Petal, 2009). On the other hand, studies that introduced job stress as intervening with turnover intention are not many, some of them has been studied by Heponiemi et al. (2016), Imam and Shafique, (2014), Wong and Laschinger, (2015). Furthermore, they argued that those employees who encounter high levels of stress were not the best performer as well as less committed to their job and organization, which ultimately increase the level of employee turnover intention. The use of job stress as an intervening variable having an indirect effect, instead of direct effect was also supported by Heponiemi et al., (2016), who suggested a more marginal role of job stress in the withdrawal process.

Furthermore, studies that introduced career concern as m on the relationship between organizational commitment and turnover intention are not many; some of them are the study by Cohen (1991), Conway (2004) and Lin (2005), who found that the relationship between organizational commitment and turnover intention becomes weak by the inclusion of career concern as moderating variable. Hence, the findings of these studies might not be able to really capture the moderating effect of career concern on turnover intention.
3. Methodology

The respondents for this study are full-time faculty members working at various private universities, mainly located in Punjab Pakistan. According to Educational Statistics of Pakistan (2013-14) report, there are 64 private universities established countrywide. However, only 18 private universities located in the Punjab were selected for the present study by employing cluster sampling technique as mentioned in Appendix A. There are about 7913 faculty members working as full-time in these 18 private universities, and represent the total population of the study. In determining an appropriate sample which could produce a reliable results for the study, Hair et al. (2011) suggested that good sample size for statistical analysis at least 10-20 times more than variables is needed.

3.1 Measurement

The questionnaire used to measure all the study variables included in this study have been adapted from previous researchers with appropriate modification that is suitable for the sample. The survey questionnaires were consisting of mainly two components. First component comprised of several likert-type scale items, and the second component described the demographic information of the faculty members (the respondents) of this study. The likert scale has been employed to determine, how strongly, the respondents agrees or disagree with a particular statement (sekaran, 2003). The aim of a 7-point likert scale is to offer respondent’s with more options/choice and to capture variability in a more better way with respect to their attitude’s and feeling’s (hinkin, 1995). To measure salary, 5- items scale by tessema and soeters (2006) was adapted; to measure training & development, 3- items scale by delery and doty (1996); performance appraisal is measured with the help of 3-items scale by chang (2005) was adapted; was adapted and to measure performance appraisal a 3-items scale by chang (2005) was adopted. For career growth (remuneration growth, promotion speed, professional development and career goal progress) a 15 items scale by weng and hu (2009) was employed; to measure organizational commitment a 6-items scale by gould, williams and davies (2005) was employed. In this study, faculty job stress has been defined as negative faculty response as a result from imbalance demand and resources, work overload, lack of recognition, inequitable distribution of rights and duties due to favoritism, inadequate funding related to research publication that affect their personal life. Job stress a 17-items scale by gmelch’s (1986) was employed. Similarly, career concern was measured with 12-items scale by perrone et al. (2003) was adapted. Lastly, turnover intention has been measured with 5 items used by lumet al. (1998) and wayne et al. (1997).
4. Results and Discussion

Table 1: Construct Reliability, Cronbach’s Alpha, Composite Reliability and AVE of all the Latent Variables

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Loadings</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Goal Progress (CGP)</td>
<td>CGP1</td>
<td>0.725</td>
<td>0.638</td>
<td>0.805</td>
<td>0.579</td>
</tr>
<tr>
<td></td>
<td>CGP3</td>
<td>0.754</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CGP4</td>
<td>0.801</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Ability Development (PAD)</td>
<td>PAD3</td>
<td>0.928</td>
<td>0.819</td>
<td>0.917</td>
<td>0.847</td>
</tr>
<tr>
<td></td>
<td>PAD4</td>
<td>0.913</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promotion Speed (PS)</td>
<td>PS1</td>
<td>0.693</td>
<td>0.644</td>
<td>0.789</td>
<td>0.556</td>
</tr>
<tr>
<td></td>
<td>PS2</td>
<td>0.703</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS3</td>
<td>0.833</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remuneration Growth (RG)</td>
<td>RG1</td>
<td>0.874</td>
<td>0.740</td>
<td>0.885</td>
<td>0.793</td>
</tr>
<tr>
<td></td>
<td>RG2</td>
<td>0.907</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career Concern</td>
<td>CS1</td>
<td>0.747</td>
<td>0.873</td>
<td>0.898</td>
<td>0.527</td>
</tr>
<tr>
<td></td>
<td>CS10</td>
<td>0.586</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS12</td>
<td>0.707</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS3</td>
<td>0.820</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS4</td>
<td>0.700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS6</td>
<td>0.700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS7</td>
<td>0.719</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS8</td>
<td>0.805</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Stress</td>
<td>JS10</td>
<td>0.762</td>
<td>0.886</td>
<td>0.903</td>
<td>0.511</td>
</tr>
<tr>
<td></td>
<td>JS11</td>
<td>0.711</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JS12</td>
<td>0.790</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JS14</td>
<td>0.751</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JS15</td>
<td>0.706</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JS17</td>
<td>0.633</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JS2</td>
<td>0.692</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JS4</td>
<td>0.745</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JS7</td>
<td>0.624</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Commitment</td>
<td>OC1</td>
<td>0.760</td>
<td>0.886</td>
<td>0.917</td>
<td>0.690</td>
</tr>
<tr>
<td></td>
<td>OC3</td>
<td>0.838</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC4</td>
<td>0.883</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC5</td>
<td>0.871</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC6</td>
<td>0.794</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance appraisal</td>
<td>PA1</td>
<td>0.946</td>
<td>0.838</td>
<td>0.906</td>
<td>0.766</td>
</tr>
<tr>
<td></td>
<td>PA2</td>
<td>0.715</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PA3</td>
<td>0.945</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary</td>
<td>SA2</td>
<td>0.871</td>
<td>0.779</td>
<td>0.871</td>
<td>0.692</td>
</tr>
<tr>
<td></td>
<td>SA3</td>
<td>0.777</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SA4</td>
<td>0.845</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training and development</td>
<td>TD1</td>
<td>0.771</td>
<td>0.633</td>
<td>0.803</td>
<td>0.576</td>
</tr>
<tr>
<td></td>
<td>TD2</td>
<td>0.717</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD4</td>
<td>0.787</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As for as this study concerned Table 1 indicates that all constructs have Cronbach’s Alpha value more than 0.6. So this is the indication of all the variables in the study have good consistency. Furthermore, as shown in the Table 4.6 which is given above, all the constructs have high reliability and their average variance extracted (AVE) is greater than cut off point of 0.50 which is indication of reliability of the measurement model.

### 4.1 Discriminant Validity

Farrell and Rudd (2009), defined discriminant validity as “the extent to which a particular latent variable is different from other latent variables”. With respect to this study, discriminant validity was determined using AVE as proposed by Fornell and Larcker (1981). Discriminant validity was obtained by comparing the correlation between the latent variables with square root of AVE (Fornell and Larcker, 1981). According to the rule of thumb of Fornell and Larcker (1981), for evaluating discriminant validity recommends the use of average variance extracted with score of 0.50 or more. In line with recommendation of Fornell and Larcker (1981), the square root of AVE must be greater than the value of latent variables which indicates discriminant validity.

<table>
<thead>
<tr>
<th>Table 2: Discriminant Validity Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGP</td>
</tr>
<tr>
<td>CGP</td>
</tr>
<tr>
<td>PAD</td>
</tr>
<tr>
<td>PS</td>
</tr>
<tr>
<td>RG</td>
</tr>
<tr>
<td>CS</td>
</tr>
<tr>
<td>JS</td>
</tr>
<tr>
<td>OC</td>
</tr>
<tr>
<td>PA</td>
</tr>
<tr>
<td>SA</td>
</tr>
<tr>
<td>TD</td>
</tr>
<tr>
<td>TI</td>
</tr>
</tbody>
</table>

Note: All the values shown in diagonal and bolded represent the square route of average whilst those of the diagonal represent latent variable correlations

### 4.2 Structural Model

In this study there are three structural model which are direct relationship structural model, mediation structural model and structural model which includes moderating variables. Firstly, the basic purpose of this study is to focus on model evaluation with examination of direct relationships and secondly test the hypothesized relationships among the constructs through structural model. In this study eight (08) hypothesis which have direct relationships with turnover intention were tested, out of eight (08) five (05) were proven to be supported and three (3) were not supported. Figure 3 explains the direct effect of every latent variable on the dependent variable.
Figure 2: Structural Model Direct Relationships (Turnover Intention) bootstrap

Table 3: Results of hypothesis testing (Direct effects with Turnover Intention)

<table>
<thead>
<tr>
<th>Hypothesized Path</th>
<th>Path coefficient</th>
<th>Standard Error (STERR)</th>
<th>T Value</th>
<th>P Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGP -&gt; TI</td>
<td>0.033</td>
<td>0.078</td>
<td>0.428</td>
<td>0.334</td>
<td>Not supported</td>
</tr>
<tr>
<td>PAD -&gt; TI</td>
<td>-0.063</td>
<td>0.077</td>
<td>0.815</td>
<td>0.208</td>
<td>Not supported</td>
</tr>
<tr>
<td>PS-&gt; TI</td>
<td>-0.264</td>
<td>0.089</td>
<td>2.978</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>RG -&gt; TI</td>
<td>-0.201</td>
<td>0.072</td>
<td>2.785</td>
<td>0.003</td>
<td>Supported</td>
</tr>
<tr>
<td>OC -&gt; TI</td>
<td>-0.105</td>
<td>0.058</td>
<td>1.820</td>
<td>0.035</td>
<td>Supported</td>
</tr>
<tr>
<td>PA -&gt; TI</td>
<td>-0.169</td>
<td>0.054</td>
<td>3.140</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>SA -&gt; TI</td>
<td>-0.126</td>
<td>0.059</td>
<td>2.127</td>
<td>0.017</td>
<td>Supported</td>
</tr>
<tr>
<td>TD -&gt; TI</td>
<td>0.097</td>
<td>0.062</td>
<td>1.566</td>
<td>0.059</td>
<td>Not supported</td>
</tr>
</tbody>
</table>

The Table 3 illustrate that all the hypothesis that were supported and accepted have p-value that is not greater than 0.05 and the hypothesis which are rejected have p-value greater than 0.05. Figure 3 was fully explained in Table 4 which shows the effect of all constructs on dependent variable turnover intention. The R square value which derived from the output of PLS shows that all the constructs put together have tendency of influencing 40% of the changes independent variable.
4.3 Direct Relationships with Organizational Commitment

Direct measurement of structural model has Figure 4 which showing the path coefficients, standard error, t value. These values confirmed that direct hypothesis of all exogenous variables with organizational commitment as mediating variable was supported or not. In present study for calculation of t value bootstrapping method has been used in line with recommendation of Hair et al. (2013), be sure that model parameter has empirical sampling distribution and standard of deviation of distribution.

At the outset, Hypothesis 6 predicted that salary is positive related to organizational commitment. Results (Figure, 4 and Table 5) demonstrate a significant positive relationship between salary and organizational commitment ($\beta=0.106$, $t=1.66$) supporting. Hypothesis 7 predicted that training and development is positive related to organizational commitment. Results (Figure, 4 and Table 6) demonstrate an insignificant positive relationship between training and development and organizational commitment ($\beta=0.021$, $t=0.327$) not supporting. Hypothesis 8 predicted that performance appraisal is positive related to organizational commitment. Results (Figure, 4 and Table 6) demonstrate a significant positive relationship between performance appraisal and organizational commitment ($\beta=0.087$, $t=1.77$) supporting.

Regarding the career growth on organizational commitment result (Figure, 4 and Table 5) indicated that career growth has significant positive relationship with organizational commitment because under four dimensions of career growth, three dimensions are supported named as career goal progress, performance speed and remuneration growth and one is insignificant names as professional ability development (Hypothesis 9) supported.

### Table 5: Results of hypothesis testing (Direct effects with organizational commitment)

<table>
<thead>
<tr>
<th>Hypothesized Path</th>
<th>Path coefficient</th>
<th>Standard Error (STERR)</th>
<th>T Value</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGP -&gt; OC</td>
<td>0.257</td>
<td>0.114</td>
<td>2.248</td>
<td>Supported</td>
</tr>
<tr>
<td>PAD -&gt; OC</td>
<td>0.019</td>
<td>0.071</td>
<td>0.275</td>
<td>Not supported</td>
</tr>
<tr>
<td>PS -&gt; OC</td>
<td>0.463</td>
<td>0.066</td>
<td>6.974</td>
<td>Supported</td>
</tr>
</tbody>
</table>
The Table 7 illustrate that all the hypothesis that were supported and accepted have p-value that is not greater than 0.05 and the hypothesis which are rejected have p-value greater than 0.05. Figure 4 was fully explained in Table 5 which shows the direct effect of all constructs on organizational commitment.

**Figure 5: Structural Model Direct Relationship (Organizational Commitment)**

4.4 **Structural Model with Mediation**

According Hair et al. (2013), mediation test was done mainly to know whatever mediating variable enhance the impact of independent variable to the dependent variable. There are several techniques that have been used for mediation test such as baron and kenny (e.g. Baron & Kenny, 1986), sobel test (e.g. Sobel, 1982) and bootstrapping (e.g. Preacher & Hayes, 2004; Hayes, 2009). So, as for current study point of view, re-sampling mediation technique (bootstrapping) was used by researcher to test the indirect effect of each potential variable. In this study this method is done by first of all determining the path coefficients by running PLS algorithm, secondly run the bootstrapping to get the t-values to determine if the direct relationships between independent variables and dependent variable before testing the mediation effect. After this procedure two different links were established such as a represents the path of independent variable to mediator variable, b represents the second link among the mediator variable to dependent variable. After that standard error for the product a*b was calculated to determine the p-value among the product a*b. Current study tested the effect of mediating variable with SmartPLS 2.0 M3 (Ringle et al., 2005) using the bootstrapping with resample of 500 and model displayed the t-values.
After getting the 500 bootstrap direct effects, next researcher were created bootstrap indirect effects by taking the product of each indirect effect. Such as a1*b, a2*b, a3*b, a4*b. Such as a1*b, a2*b, a3*b, a4*b, a5*b, a6*b and a7*b. Next the t-values were calculated by using formula which is given below by Hayes and Preacher (2010) as cited in Ramaya (2011).

t = a*b/Stdev

From the structural model assessment of this study, it was found that out of all study variables includes in the structural model only performance appraisal and three dimension of career growth names as career goal progress, promotion speed and remuneration growth were significantly related to organizational commitment and turnover intention.

The Table 6 shows the result of mediation effect of organizational commitment on the relationships between independent variable and dependent variable.

<table>
<thead>
<tr>
<th>NO</th>
<th>CGP &gt; OC &gt; TI</th>
<th>PAD &gt; OC &gt; TI</th>
<th>PS &gt; OC &gt; TI</th>
<th>RG &gt; OC &gt; TI</th>
<th>SA &gt; OC &gt; TI</th>
<th>PA &gt; OC &gt; TI</th>
<th>TD &gt; OC &gt; TI</th>
</tr>
</thead>
<tbody>
<tr>
<td>a*b</td>
<td>0.055</td>
<td>-0.008</td>
<td>-0.064</td>
<td>-0.037</td>
<td>-0.011</td>
<td>-0.02</td>
<td>0.008</td>
</tr>
<tr>
<td>STDVA</td>
<td>0.020</td>
<td>0.008</td>
<td>0.029</td>
<td>0.015</td>
<td>0.007</td>
<td>0.01</td>
<td>0.008</td>
</tr>
<tr>
<td>T-Value</td>
<td>2.71</td>
<td>0.99</td>
<td>2.19</td>
<td>2.41</td>
<td>1.52</td>
<td>1.95</td>
<td>0.968</td>
</tr>
<tr>
<td>P-Value</td>
<td>0.003</td>
<td>0.162</td>
<td>0.014</td>
<td>0.008</td>
<td>0.065</td>
<td>0.026</td>
<td>0.167</td>
</tr>
</tbody>
</table>

Table 9 shows the results of mediation of organizational commitment (OC) indicating a t-value of 1.52 for salary (SA); 1.95 for performance appraisal (PA) and 0.968 for training and development (TD). Furthermore, under four dimension of career growth three dimension are shows mediation such as career goal progress with (t-value = 2.71), promotion speed with (t-value = 2.19) and remuneration growth with (t-value = 2.41) except one (1) dimension is insignificant named as professional ability development with (t-value = .099) with turnover intention.

In that regard, four variables indicate partial mediation out of seven such as career goal progress with t-value of 2.71, promotion speed with t-value of 2.19, remuneration growth with t-value 2.41, performance appraisal (PA) with t-value of 1.95, which indicates partial mediation and significant except Salary (SA) and training & development (TD) which become insignificant and week after including organizational commitment as mediator with turnover intention.
Table 7: Mediator Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesized Path</th>
<th>Path coefficient</th>
<th>Standard Error (STERR)</th>
<th>T Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGP &gt; OC &gt; TI</td>
<td>0.055</td>
<td>0.020</td>
<td>2.71</td>
<td>SUPPORTED</td>
</tr>
<tr>
<td>PAD &gt; OC &gt; TI</td>
<td>-0.008</td>
<td>0.008</td>
<td>0.99</td>
<td>NOT SUPPORTED</td>
</tr>
<tr>
<td>PS &gt; OC &gt; TI</td>
<td>-0.064</td>
<td>0.029</td>
<td>2.19</td>
<td>SUPPORTED</td>
</tr>
<tr>
<td>RG &gt; OC &gt; TI</td>
<td>-0.037</td>
<td>0.015</td>
<td>2.41</td>
<td>SUPPORTED</td>
</tr>
<tr>
<td>SA &gt; OC &gt; TI</td>
<td>-0.011</td>
<td>0.007</td>
<td>1.52</td>
<td>NOT SUPPORTED</td>
</tr>
<tr>
<td>PA&gt; OC &gt; TI</td>
<td>-0.020</td>
<td>0.010</td>
<td>1.95</td>
<td>SUPPORTED</td>
</tr>
<tr>
<td>TD&gt; OC &gt; TI</td>
<td>0.007781</td>
<td>0.00804</td>
<td>0.96</td>
<td>NOT SUPPORTED</td>
</tr>
</tbody>
</table>

4.5 Structural Model with Moderator
With regard to this study introducing the level of job stress and career concern perceived by the survey respondents in SmartPLS 2.0 M3 needs to establish a direct relationship between moderating variable (career concern and job stress) and the outcome variable (turnover intention). Due to this reason both the moderating effect as well as the direct effect will be calculated in order to improve the research. To calculate the moderating effect the researcher run PLS algorithm to obtain the beta coefficients values which are -0.477 for the career concern (CS) related to organizational commitment and turnover intention, while 0.057 for the job stress related to organizational commitment and turnover intention respectively. However, to obtain the t-values the researcher run bootstrapping, after bootstrapping the results in Table 11 deals with the moderating effect of career concern and job stress in predicting the employee turnover intention. The results shown in Table 8 did not support hypothesis 14, which demonstrate that job stress moderates the relationship between organizational commitment and turnover intention ($\beta= 0.057$, T= 1.49, p-value>0.05). Moreover, hypothesis 15, which suggested that career concern moderates the relationship between organizational commitment and turnover intention ($\beta= -0.477$, T= 2.43, p-value<0.05). Therefore, hypothesis 15 was supported.

Table 8: Moderator Hypothesis Testing

<table>
<thead>
<tr>
<th>NO</th>
<th>Hypothesized Path</th>
<th>Path coefficient</th>
<th>Standard Error (STERR)</th>
<th>T Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OC * CS -&gt; TI</td>
<td>-0.477</td>
<td>0.230</td>
<td>2.432</td>
<td>Supported</td>
</tr>
<tr>
<td>2</td>
<td>OC * JS -&gt; TI</td>
<td>0.057</td>
<td>0.188979</td>
<td>1.494719</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

Information from the path coefficients was utilized to plot the moderating effect of career concern on the relationship between organizational commitment and turnover intention, by following the techniques suggested by Aiken and West (1991), Sharma et al. (1981), Dawson, (2014). Figure 7 indicates that the relationship between organizational commitment and turnover intention is weak for individuals with high career concern than it is for individuals with low career concern. In line with previous argument high career concern high turnover intention then employees with lower career concern, no matter if they are highly committed with organization or not.
5. Discussion

5.1 Implication of the Study

The finding of this research provide several practical implication for human resource practitioner and managers (e.g. Head of department or director) about some of the HRM practices (e.g. salary and performance appraisal) and career growth practices (career goal progress, remuneration growth and promotion speed) which are vital to increase the organizational commitment of employees which eventually leads to reduce the employee’s intention to leave the organization. As such these help the management of private universities in managing their human resource development programs as well as career development programs for accommodating the employee’s career needs located in East Africa.
and also provide career growth opportunities to satisfy their expectations towards high performing employees to reduce the turnover intention.

It is evident from the findings of this research that private universities concerned with employee turnover issue need to provide supportive human resource practices and career management practices pertaining to salary, performance appraisal, career goal progress, remuneration growth and promotion speed were found to have impact on employee organizational commitment and turnover intention. Therefore, private universities should also give more attention to the way salary is distributed and evaluated by making sure that salary level is appropriate with job and fairly distributed. A good salary system will not only reduce employee turnover intention, but also encourage the organizational commitment of employees. With regard to performance appraisal, the findings of current study suggest that management of private universities need to focus on effective and fair performance evaluation system to evaluate the job performance of their employees. This effective performance management will able to encourage employee commitment with organization and reduced their intention to leave the organization. Similarly, with regard to career growth, the findings of this research practically suggest that management of private universities need to focus on career development programs. Conversely, the study findings in relation to career growth opportunities may assure that private universities need to provide career options to employees and also provide equal chance for promotion, remuneration growth according to their knowledge, skill and ability. As such, employees who expect progress and growth in their career will ultimately committed with organization and stay longer with same organization.

5.2 Limitation and Future Direction

After interpretation of study findings, several limitations need to be considered in assessing the reported outcomes. The limitations of this study, at the same time, also uncover a number of potential areas for future researchers which are briefly discussed here.

Firstly, the research design used in this study was a survey questionnaire research design that employed the cross-sectional data, which was gathered at a particular point of time to test the hypotheses. Future study may look into longitudinal study in order to expand the research finding. In addition, this study has not considered any other institutions like polytechnics colleges, public/government universities as well as college of health technology, which are also the part of higher educational institution of Pakistan.

Secondly, this study has grabbed the views of respondents in one aspect and only at that particular time from Private Universities of Pakistan, so maybe it would be more appropriate and balanced, if these views would also be taken from government universities of Pakistan.

Thirdly, this study is quantitative in nature and researcher relied on the questionnaire data only for statistical analysis. On the other hand, for future research, qualitative or mixed mode method on turnover intention can be used for further investigation in the context of Pakistan. So, future researchers can emphasis on both methods to understand employee turnover behavior.

Fourthly, this study is based on the data of self-reported questionnaire; hence, the probability of a common method variance might exist because all of the variables have been measured, by using a ‘single survey instrument’. In accordance to Avolio et al. (1991) the common method variance is more inconvenient in analyzing the relationships between the attitudinal or psychological data obtained from the single respondent at a particular or one point of time. In this study, the data of both independent and dependent variables are perceptions based. That’s why, the future research would include a method, which can decrease the common method variance for example, instead of using a perceptions based data, and the objective measures should be used.

Lastly, although this research found that career concern plays an important role in moderating the relationship between organizational commitment and turnover intention, the picture is still vague. In addition, another moderating and mediating variable between the relationship of career growth and turnover intention For example, goal progress and ability development may be more predictive for persons high on learning goals (or intrinsic motivation), whereas promotion speed and remuneration growth may be more predictive for persons high on performance goals (or extrinsic motivation) should be recommended for future research.

6. Conclusion

This study has contributed empirically to a number of recognized relationships between the variables, which has been tested both directly and indirectly in order to provide answers of the research questions and to accomplish the
related research objectives given in the current study.

However, the findings of this research suggested that to manage turnover intention amongst employees, organizations must focus on improving their human resource development and career management practices especially salary, performance appraisal, career goal progress, promotion speed and remuneration growth aspect of career growth. These practices are important to enhance employee commitment to the organization which in turn will reduce turnover intention. In addition, organization must realize that the impact of organizational commitment in reducing turnover intention is weak whenever the employees are highly concerned about their own career. Hence, employee career should also be the concern of the organization.

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Investigating Pakistan’s Revealed Comparative Advantage and competitiveness in Cotton Sector

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Assistant Professor, School of Economics, Bahauddin Zakariya University, Multan

ARTICLE DETAILS

ABSTRACT

Cotton sector, one of the most important sectors of agriculture, plays a pivot role in the socio-economic uplift of Pakistan as its contribution to agriculture value addition is 5.5% and to GDP is 1%. It along with low wage cost also ensures the massive availability of raw material for textile industry which enables Pakistan to attain competitiveness in the world market. The aim of present study is, therefore, to measure the export competitiveness in cotton sector of Pakistan by utilizing a set of Revealed competitive advantage and Revealed comparative advantage (RCA) indices such as RCA, RCA#, Symmetric Comparative index (RSCA), Revealed Import Advantage index (RMA), Net export index (NEI) and Revealed Trade Advantage index (RTA) vis-a-vis world trade. The data was taken from International Trade Center (ITC) UN-COMTRADE Statistics for Pakistani cotton from 2003-17. The results of the study explored that Pakistan had a comparative and competitive advantage in cotton exports, while comparative disadvantage in cotton imports. Moreover, Pakistan had net competitive advantage in cotton sector. The study suggests that there should be more emphasis on Infrastructure, reduction in the cost of production, utilities and finance, use of modern technology, investment in agricultural sector and marketing in international market to boost the exports volume of cotton. Net export index (NEI), Revealed, Symmetric Comparative index (RSCA) (Larsen 1998), Vollrath index (1991) (RCA#), Revealed Import Advantage index (RMA) and Revealed Trade Advantage index (RTA).

Keywords
Competitiveness, Comparative Advantage, Cotton Sector, Textile, Agricultural Sector

JEL Classification:
O13, N50, N60, P32

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1. Introduction

Apart from Foreign Direct Investment (FDI), the exports of an economy have been one of key determinants to maintain high growth, life expectancy and better schooling due to their significance in the global economy (Azman-Saini and Ahmad, 2010). Exports are supposed to be the engine of economic growth of an economy that is essential for the welfare and prosperity of the masses (Jackson, 2009). Pakistan can enhance its markets through economies of scale in firms and then exports of commodities to the world for achieving competitiveness (Schwab, 2010). The
The export performance or competitiveness is generally measured by several determinants like comparative advantage, terms of trade (TOT), real exchange rate, trade policies, geographical attention of country, world income, etc. The nature and pattern of global trade give a fairly better indication to those economies which have signed global trade agreements. The countries, in international markets, having comparative advantage produce those commodities in which they have low cost in production (Dornbusch and Samuelson, 1977).

Numerous researches have attempted to define the competitiveness of an economy in several ways, yet it is the Organization for Economic Cooperation and Development (OECD) that has defined it as, “The degree to which a country can, under free and fair market condition, produces goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people in the long term” (Stevans et al., 2012). Competitiveness, in the present scenario of global economy, is considered an impetus in uplifting economy which plays a significant role in determining the progress and development of any economy. Classical economics equips that a country’s competitiveness can be measured by focusing on key production inputs: capital, land, labour and natural resources, and these determinants contribute a lot in the development and progress of an economy. At present, however, this theory is no more applicable as in the modern global world as the policy formation of an economy must be in conformity with the major determinants of global trade e.g. the political and social environment, which play a primary and comprehensive role in accomplishing competitiveness (Tan and Giap, 2004). Competitive advantage is defined as the function of a process that enables a firm to organize and manage its activities (Haque et al., 2013). Constant innovations in the product and service pave the way for a firm to sustain its competitive position in the market. Competitive strategy comprises two components, the structure of the industry and the position of a firm within the industry (Grant, 1991).

### Table 1: Export growth of Cotton from Pakistan and World (US thousand dollars)

<table>
<thead>
<tr>
<th>Years</th>
<th>Cotton Exports of Pakistan</th>
<th>Cotton Exports of World</th>
<th>Total Exports of Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>12.22</td>
<td>10.91</td>
<td>-27.53</td>
</tr>
<tr>
<td>2004</td>
<td>15.85</td>
<td>-4.52</td>
<td>21.58</td>
</tr>
<tr>
<td>2005</td>
<td>4.77</td>
<td>7.53</td>
<td>5.21</td>
</tr>
<tr>
<td>2006</td>
<td>-4.69</td>
<td>1.67</td>
<td>5.07</td>
</tr>
<tr>
<td>2007</td>
<td>4.33</td>
<td>1.95</td>
<td>12.03</td>
</tr>
<tr>
<td>2009</td>
<td>20.17</td>
<td>27.03</td>
<td>18.01</td>
</tr>
<tr>
<td>2010</td>
<td>21.26</td>
<td>17.51</td>
<td>15.50</td>
</tr>
<tr>
<td>2011</td>
<td>2.46</td>
<td>-4.62</td>
<td>-2.96</td>
</tr>
<tr>
<td>2012</td>
<td>2.02</td>
<td>6.12</td>
<td>2.019</td>
</tr>
<tr>
<td>2013</td>
<td>-12.73</td>
<td>-12.10</td>
<td>-1.61</td>
</tr>
<tr>
<td>2014</td>
<td>-17.10</td>
<td>-13.84</td>
<td>-11.92</td>
</tr>
<tr>
<td>2015</td>
<td>-15.52</td>
<td>-6.95</td>
<td>-7.57</td>
</tr>
<tr>
<td>2016</td>
<td>0.009</td>
<td>1.77</td>
<td>6.14</td>
</tr>
</tbody>
</table>

Sources: Authors own calculations based on ITC data

Table 1 shows the growth rate of cotton exports of Pakistan of the world and of the total exports of Pakistan to international market. The cotton exports of Pakistan shows an increasing trend from 2003 to 2013 and then decreasing till the year of 2017. Figure 1 illustrates export growth rate of cotton in Pakistan and rest of the world respectively. As the economy of Pakistan is agrarian, therefore, since the very inception of Pakistan, the agriculture sector has been playing a key role in its economic development by making a great contribution to its GDP. The agricultural sector contributes 21.2 % to GDP and also contains 45% of the labor force. Pakistani major crops are rice, wheat, sugarcane, maize and cotton, and the contribution of these major crops in agriculture sector of Pakistan is about 25.6 percent and 5.4% to GDP.

Cotton being a cash crop holds much significance as it provides raw material to textile industry of Pakistan; however, it contributes 1.4% to GDP. Pakistan is the fourth largest exporter of cotton in the world having worth of 3.5 billion dollars in 2017. The contribution of cotton and cotton made products is about 10% to GDP and 55% to the foreign exchange earnings of the economy. Pakistan utilizes 30% to 40% cotton in domestic purpose and the
remaining is exported to the world in the form of yarn, raw cotton, garments and cloth. To measure the competitiveness and competitive advantage of cotton, the present study has employed different indices of comparative advantage such as Balassa index (1965), Net export index (NEI), Revealed, Symmetric Comparative index (RSCA) (Larsen 1998), Vollrath index (1991) (RCA#), Revealed Import Advantage index (RMA) and Revealed Trade Advantage index (RTA).

**Figure 1: Export growth of cotton**

![](image)

2. Review of literature

The methodology of Revealed Comparative Advantage has been employed by a number of researchers to study the competitiveness of an economy, and Balassa and Marcus (1989) also utilized this methodology to measure the comparative advantage between two countries, Japan and the USA, from 1967 to 1983. The findings of the analysis illustrated that Japan shifted its specialization from labour intensive products to human capital intensive products. It was also noted that the United States (USA) had a comparative advantage in the production of natural resources intensive products. Another study conducted by Haddad (2000) also applied intra industry index and RCA to examine the export competitiveness of Middle East and North Africa in the world during 1985 to 1997. The results of the study illustrated that diversifications in the exports were nominal and in the absence of this, export competitiveness was not evident. Benders and Li (2002) utilized the RCA to measure the export performance of Latin American and Asian economies. The findings of the analysis showed that comparative advantage of East Asian economies deteriorated as compared to Latin America and South East Asian economies. Kosekahiyaoglu (2003) also employed RCA to explore the competitiveness and the deviation in the comparative advantage of Turkey with respect to the European Union for the period after 1980 in which Turkey adopted liberal trade strategy. The findings of the study illustrated that the degree of competitiveness in some of its labour intensive manufacturing industries decreased after liberalization program. Another study to measure the competitiveness and pattern of trade specialization between Turkey and European Union was conducted by Uthkulu and Seyman (2004) who utilized Balassa index for empirical analysis. The results of the research indicated that Turkey had CA for seven of the 63 product groups: vegetables and fruit, clothing and clothing accessories, honey, sugar, sugar preparations, oil seeds and oleaginous fruits, tobacco, textile yarn, rubber manufactures, fabrics and related products. To investigate the competitiveness of China and India, Batra and Khan (2005) utilized Balassa index to examine comparative advantage of product and sector level from 2000-2003. The findings of the study showed that India and China had gained a comparative advantage in different products and in different sectors. A study conducted by Erkan and Kazim (2014) measured the competitiveness of the export of science based goods of Turkey from 1993 to 2012 by utilizing several revealed comparative advantage indices. The study took data from the trade industries of the United Nations and found out that the export share of science based products in the world trade did not increase. Different indices of revealed comparative advantage were employed by Lgnjatijevic et al (2014) to measure the competitiveness in exports of food sector of Serbia in comparison to the region of Danube from 2005 to 2011. The study applied RXA, LNRXA, RTA, RC, RCA, GL, SM and LFI techniques to examine the comparative advantage of food sector exports. The findings of the Balassa index showed that the products of dairy
farm, fruits, vegetables, starch, sugar, edible products, animals and vegetable fats had the comparative advantage in exports.

Asmara et al (2015) scrutinized the export performance and comparative advantage of the Indonesian fiber industrial sector by utilizing time series data from UN-Comtrade, and applied Descriptive and RCA index analysis from 2008 to 2012. The progress of RCA index of South Korea and India for the fiber product kept fluctuating during the time frame mentioned above, while the progress of RCA index of Indonesia remained higher than both the countries. The same method was also utilized by Obadi and Korcek (2016) to measure the competitiveness and export performance of EU with its trade partner, the USA. The findings of the research pointed out that the EU succeeded in achieving a comparative advantage and specialization in production than the USA. Deb and Sengupta (2017) examined the empirical distribution of RCA indices in global trade. The study equipps that these indices are helpful to identify the comparative advantage or disadvantage of economies in various commodities and thus help the policy makers in the formulation of policies towards the export expansion of the economies. The RCA method was also applied by Ali et al (2017) to examine the export competitiveness of ready-made garments of Bangladesh and major competitors such as Pakistan, Vietnam, China, Sri Lanka, India, Turkey and Cambodia from 2012-15. The study found that the export share of Bangladesh in the United States market declined from 6% to 5.68% in 2014 after the suspension of the US–GSP. On the other hand, the market share in EU markets remained constant which illustrated that the US–GSP status was significant to increase the positive image and enhanced the volume of trade of the world market. Abtew et al (2017) measured the competitiveness and export performance of developing economies with respect to developed economies of the world by employing Balassa index in textile fabrics from 2006 to 2015. The results found that for HS code 51 (animal hair, wool, horsehair yarn and fabric), developed countries had a high comparative advantage as compared to developing economies, but for the commodities such as cotton, silk, man-made fibers and filaments, developing countries had better circumstances for worldwide export. The RCA method was also employed by Mahmood (2000) to explore the competitiveness and exports specialization in Malaysia. This study, utilizing RCA, located the competitiveness between ASEAN economics and Malaysia. As far as Pakistan is concerned, The RCA method was employed by Mehmood and Nishat (2004) to examine the competitiveness of exports in the sector of non-agricultural production of Pakistan for the year 1999-2000. The findings of the study illustrated that 34.7% products from textile and clothing sector had competitive positioned products and 23.9% are from the chemical industry. Zia (2007) investigated the position of competitiveness in world markets and what Pakistan learnt from other emerging economies from 1960 to 2007. The study also extended the discussion by utilizing Asian Development Bank value added analysis and value chain method of World Bank, and the findings showed that the countries experienced a considerable increase in their exports with the passage of time.

Akhter et al (2009) examined the fruit competitiveness in Pakistan by employing the method of revealed comparative advantage. The findings of the study showed that Pakistan had a higher competitive and comparative advantage in the production of mangoes and dates as compared to the major competitors, while in the production of oranges, Pakistan failed to achieve a higher competitive and comparative advantage. Other than Ballasa index some other techniques were utilized to measure comparative advantage as Anwar et al (2010) utilized policy analysis matrix approach to measure the CA of Pakistan in cotton sector from 1971 to 2008. The study applied Johanson co-integration test for empirical analysis, and its results showed that the international as well as national policies of trade had a significant impact on cotton exports. Balassa and white index applied by Mukhtar and Ilyas (2010) measured the competitiveness among five major economies of Asia during the time span from 1985 to 2005. The results of the study showed that Pakistan had a comparative and competitive advantage in the global rice market, followed by Thailand and Vietnam. Another study was conducted by Ghafoor et al (2010) to investigate the factors affecting the exports of mangoes of Pakistan by utilizing double log regression analysis from 2005-06. The findings of the study revealed that experience, education, average price of purchase, the average cost of marking, ISO certificate and average price of sale had a significant impact on the exports of mangoes. Furthermore, the results showed hot water treatment had a fruitful effect, while government policies had not a significant impact on exports of mangoes.

Amjad et al (2012) examined the export barriers in Pakistan to underline the problems faced by the firms in the export sector. The findings of the study revealed that energy crises, skilled labour shortage, rigidities in institutions, imperfections in markets and weakness in infrastructure were the major impediments to achieve competitiveness in the export sector. Another researcher, Iqbal et al (2013), measured the competitive and comparative advantage of
white gold of Pakistan by employing both white and Balassa index from 1970-2010. The findings of the analysis illustrated that Pakistan had a comparative and competitive advantage during analysis except the year 1999. The comparative advantage was observed by Shahzad (2015) in the clothing and textile sector in India, Pakistan and Bangladesh from 1980-2010. The study applied Balassa index for measuring the comparative advantage in the static and dynamics analysis. The findings of the study indicated that Pakistan, in textile sector, had gained a high comparative advantage as compared to Bangladesh and India, whereas India successfully gained comparative disadvantage in textile sector as compared to Bangladesh and Pakistan. Another study conducted by Niazi et al (2015) to measure the competitiveness in the cotton export by employing Balassa index concluded that Pakistan had a high CA in the above mentioned sector. Similarly, Saqib et al (2017) employed revealed comparative advantage index to measure the sector-wise export performance and competitiveness of Pakistan vis-a-vis global world from 2003-15. The results of the study illustrated that though Pakistan was not a major trading partner in international market; it successfully gained and maintained a high comparative advantage in the export of some selected products such as vegetables, skins and hides and textile and clothing products.

The current study is anticipated to be a better addition in the field of cotton’s competitiveness as global markets have become far more competitive than ever before. Throughout the world, it can be seen that the leading factor of prosperity is economic growth which in return heavily depends upon imports and exports as well. As no valuable study employing a number of indices has been conducted yet to measure the competitiveness in cotton sector of Pakistan, this study has utilized such indices as RCA, RCA#, RSCA, RMA, NEI and RTA to measure Pakistani cotton competitiveness, and it will be highly productive and beneficial for the future research also.

3. Methods and Materials

The data has been collected from International Trade Center (ITC) UN-COMTRADE Statistics for Pakistani cotton during 2003-17. The current study has employed different indices such as Balassa index (1965), Net export index (NEI), Revealed, Symmetric Comparative advantage index (RSCA) (Larsen 1998), Vollrath index (1991) (RCA#), Revealed Import Advantage index (RMA) and Revealed Trade Advantage index (RTA) for the measurement of competitiveness of cotton in Pakistan.

3.1 Revealed comparative advantage index (RCA)

The RCA index was first introduced by Liesner (1958) and employed by Balassa (1965) in order to measure CA (Balassa, 1965). The revealed comparative advantage index of exports (RCA) is described as the ratio of exports of an economy in a particular product group to its share in total merchandise exports (Balassa and Noland, 1989).

\[
\text{RCA(Balassa Index)} = \frac{x_i^B}{\sum x_i^B} \div \frac{x_i^W}{\sum x_i^W}
\]

(Source; Erkan and Sarıçoban, 2014)

Where

\[x_i^B\] = Pakistan’s cotton exports
\[\sum x_i^B\] = Pakistan’s total exports
\[x_i^W\] = World’s cotton exports
\[\sum x_i^W\] = Total exports of world

A more comprehensive analysis, in order to illustrate the power of CA, the index of Balassa’s RCA can be classified into four classifications.

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Classifications</th>
<th>Interpretations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$0 &lt; \text{RCA} \leq 1$</td>
<td>No CA</td>
</tr>
<tr>
<td>2</td>
<td>$1 &lt; \text{RCA} \leq 2$</td>
<td>Week CA</td>
</tr>
<tr>
<td>3</td>
<td>$2 &lt; \text{RCA} \leq 4$</td>
<td>Moderate CA</td>
</tr>
<tr>
<td>4</td>
<td>\text{RCA} &gt; 4</td>
<td>Strong CA</td>
</tr>
</tbody>
</table>

Source: Hinloopen, 2001
The study also employed logarithms to the RCA and if lnRCA > 0 reveals CA; on the contrary, when lnRCA < 0 shows comparative disadvantage (Faustino, 2008).

3.2 **Net Export Index (NEI)**
Balassa also used Net export index (NEI) for revealed comparative advantage, described as net exports divided by the sum of exports and imports for a particular manufacturing industry or economy (Balassa and Noland, 1989). Net Export Index (NEI) is utilized to examine whether an economy has specialization in exports (as net-exporter) or in imports (as net-importer) for a specific product groups (Erkan and Saricoban, 2014). The absolute value of |NEIᵢ,ⱼ| explains the portion of inter-industry trade relative to the total international trade of any product group, and (1-[NEIᵢ,ⱼ]) therefore corresponds to the portion of intra-industry trade (Vixathep, 2011).

NEI= X-M/X+M  
(Source; Erkan and Saricoban, 2014)

3.3 **Vollrath index (RCA#)**
The RCA index of Vollrath (1991) is deemed a better measurement for competitiveness of an economy and eradicates the problem of double counting in global trade. The index of Vollrath is described as

RCA(Vollrath index) = \[ \frac{\left( \frac{Xᵢj}{\sum Xᵢj} - Xᵢj \right)}{\left( \frac{\sum Xᵢj}{\sum Yᵢj} - \frac{\sum Xᵢj}{\sum Xᵢj} \right)} \]  
(Source; Khai et al., 2016)

Where

\( Xᵢj \): Pakistan’s Cotton exports  
\( \sum Xᵢj \): Total exports of Pakistan  
\( \sum Yᵢj \): World’s Cotton exports  
\( \sum \sum Xᵢj \): Total exports of world

3.4 **Revealed symmetric comparative advantage index (RSCA)**
The present study to solve the issue of upward biased values of revealed comparative advantage utilized Larsen (1998) index which adjusted the values of RCA index in symmetric values. The position of adjusted values of RCA lies between +1 and -1. Larsen (1998) illustrated his index as RSCA, which is expressed as

RSCA = \[ \frac{RCA - 1}{RCA + 1} \]  
(Source; Erkan and Saricoban, 2014)

3.5 **Relative Trade Advantage Index (RTA)**
Relative trade advantage index (RTA) describes the net trade advantage or trade disadvantage. It is given by the difference between Revealed export advantage index (RCA) and Revealed import advantage index( RMA).

\[ \frac{Mᵢ^B}{\sum Mᵢ^B} \] = RMA

\[ \frac{\sum Mᵢ^B}{\sum Mᵢ^W} \] = RMA

\( Mᵢ^B \): Imports of cotton of Pakistan  
\( \sum Mᵢ^B \): Total imports of Pakistan  
\( Mᵢ^W \): Cotton imports of world  
\( \sum Mᵢ^W \): Total imports of world

\[ \frac{Xᵢ^B}{\sum Xᵢ^B} - \frac{Mᵢ^B}{\sum Mᵢ^B} \] = RTA  
(Source; Akhtar et al., 2013)

3.6 **Product Mapping**
In addition, the present study constructed “products mapping” by utilizing the RSCA and NEI indexes (Widodo, 2009). Cotton sector can be categorized into four groups A, B, C and D as illustrated in

<table>
<thead>
<tr>
<th>Group; A</th>
<th>Group; B</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>CA</td>
</tr>
<tr>
<td>Net-exporter economy</td>
<td>Net-importer economy</td>
</tr>
<tr>
<td>(RSCA &gt;0 and NEI &gt;0)</td>
<td>(RSCA &gt;0 and NEI &lt;0)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group; C</th>
<th>Group; D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparative Disadvantage</td>
<td>Comparative Disadvantage</td>
</tr>
<tr>
<td>Net-exporter economy</td>
<td>Net-importer economy</td>
</tr>
<tr>
<td>(RSCA &lt;0 and NEI &gt;0)</td>
<td>(RSCA &lt;0 and NEI &lt;0)</td>
</tr>
</tbody>
</table>

Source: Widodo, 2009

4. Results and Discussions

In table 1, Pakistan has the CA in the cotton sector because the values of RCA are greater than 1 from 2003-2017. The above mentioned result highlights that Pakistan gained and maintained the high CA in cotton sector up to 2017 having the values of RCA greater than 4 (Shahzad, 2015). The positive values of NEI shows that Pakistan is the net exporter of cotton. Moreover, the findings of RCA indicate that cotton had a revealed comparative advantage having both increasing and decreasing trend. The findings also illustrate that the portion of inter-industry and intra-industry trade relative to the total international trade of cotton sector exists in Pakistan. According to the ‘Product mapping’, cotton sector of Pakistan lies in the group A. The financial crises in the world in 2008-2009 had a significant impact on global trade at world level as 12% decline was reported by world trade organization in the volume of global trade in 2009. This turn down in trade channels caused by financial collapse decreased the demand for trading products and created shortage in trade financing (WTO, 2010).

The decreasing trend of above mentioned indices were because of regional devaluation in the currency, inconsistency in yield of cotton crop, shrinking global demand resulted in decrease of cotton prices in the market, low wages, high cost of energy, high tax rate, bad government policies, energy crisis, high running cost, shortage of raw material, less productivity of labour, low level of technology, law and order circumstances in the economy and global financial crisis (Syed, 2009 and Malik et al, 2017).

The index LN_RCA also indicates that Pakistan had a CA in the cotton sector. The values of RSCA describe that Pakistan concentrate in the exports of cotton during the selected time span. The findings of RSCA illustrate that Pakistan had a CA during 2003-2017 in cotton sector. The competitive advantage of this sector was also observed by employing an alternative index commenced by Vollrath (1991). The Vollrath index (RCA#) values indicate a high competitive advantage in above mentioned sector. The values of RMA>1 indicate that Pakistan has competitive disadvantage in imports of cotton. The index of RTA having values greater than zero illustrate that Pakistan has net competitive advantage in cotton sector (Ahmad and Kalim, 2013).

<table>
<thead>
<tr>
<th>Years</th>
<th>RCA</th>
<th>RSCA</th>
<th>LNRCA</th>
<th>RCA#</th>
<th>RMA</th>
<th>RTA</th>
<th>NEI</th>
<th>(1-N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>26.83</td>
<td>0.92</td>
<td>3.28</td>
<td>33.54</td>
<td>4.64</td>
<td>22.18</td>
<td>0.77</td>
<td>0.22</td>
</tr>
<tr>
<td>2004</td>
<td>42.22</td>
<td>0.95</td>
<td>3.74</td>
<td>57.79</td>
<td>7.38</td>
<td>34.83</td>
<td>0.67</td>
<td>0.32</td>
</tr>
<tr>
<td>2005</td>
<td>46.73</td>
<td>0.95</td>
<td>3.84</td>
<td>63.70</td>
<td>4.86</td>
<td>41.86</td>
<td>0.73</td>
<td>0.26</td>
</tr>
<tr>
<td>2006</td>
<td>49.72</td>
<td>0.96</td>
<td>3.90</td>
<td>67.58</td>
<td>3.74</td>
<td>45.98</td>
<td>0.78</td>
<td>0.21</td>
</tr>
<tr>
<td>2007</td>
<td>51.29</td>
<td>0.96</td>
<td>3.93</td>
<td>67.71</td>
<td>8.23</td>
<td>43.05</td>
<td>0.57</td>
<td>0.42</td>
</tr>
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<td>2008</td>
<td>53.41</td>
<td>0.96</td>
<td>3.97</td>
<td>69.34</td>
<td>8.91</td>
<td>44.50</td>
<td>0.49</td>
<td>0.50</td>
</tr>
<tr>
<td>2009</td>
<td>52.94</td>
<td>0.96</td>
<td>3.96</td>
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5. Conclusion
This study measure the competitiveness of cotton sector in Pakistan by utilizing different indices of revealed comparative advantage such as, RCA, RCA#, RSCA, RMA, NEI and RTA. The data has been collected from ITC UN-COMTRADE Statistics for Pakistani cotton for the time period from 2003-17. The results of the analysis describe that Pakistan has a comparative and competitive advantage in cotton exports, while comparative disadvantage in cotton imports during 2003-17. Furthermore, the results also indicate that Pakistan has net competitive advantage in cotton sector. Pakistan should lay emphasis on infrastructure, as there is inconsistency in yield of cotton crop, should decrease the cost of production, utilities and cost of finance, human resource (mainly unskilled labour). And moreover, there should be use of modern technology, investment in agricultural sector and marketing in international market to increase the exports of cotton.

References

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Source: UN COMTRADE Database, Authors own calculations


Irshad, M. S., & Xin, Q. (2017). Determinants of Exports Competitiveness: An Empirical Analysis through Revealed Comparative Advantage of External Sector of Pakistan


Shari’ah Appraisal of Mortgage backed Sukuk issued by Financial Institutions for House Financing in Naya Pakistan Housing Program: An Analytical Study

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ABSTRACT

This article is focused on conducting the Shari'ah evaluation of mortgage backed sukuk by financial institutions in Pakistan under Naya Pakistan Housing Program for house financing. The financial product should strictly comply with the directives of Shari'ah. This research work explores the structure of mortgage backed sukuk to spotlight the efficacy of mortgage backed Sukuk in house financing projects. Furthermore, this study discusses the Shari'ah rulings with respect to the contract of Rahn. This endeavor is made to indicate Shari'ah requirements pertaining to the validity of financial product of mortgage backed sukuk for house financing. This research article finds that the present government should adopt the financial product of mortgage backed sukuk for house financing under Naya Pakistan Housing Program because structure of mortgage backed sukuk is Shari'ah compliant and Shari'ah based. Pakistan is a candidate of Shari'ah compliant housing finance because of constitutional responsibility of state of Pakistan under article 2-A and 227 of Constitution of Pakistan, 1973. Finally, suggestions have been put forward to issue mortgage backed securities for house financing project to the government of Pakistan.

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1. Introduction

Housing is a primary and fundamental need of a family unit in any society. This need of a human being is recognized by Universal Declaration of Human Rights. To reaffirm the need of housing for the citizens of the state, in 1996 United Nation organized a conference titled, Habitat Conference. (Ali Akbar Ghanghro, 2018). Shortage of housing facility is mainly faced by segment having low incomes. Low income segments need empowerment through availability of housing on affordable terms and conditions.

Mortgage financing is usually used in house financing because a person cannot afford to build a house all at one owing to the shortage of finances. Mortgage financing can be the best available way for him to achieve the desired result of having house of his own. Mortgage financing is a loan given by financial institution to a qualified
applicant for the purpose of acquiring a property in the form of house and putting that property as a collateral or security. The debtor will be the owner of the house and the financial institution is entitled to a claim on that property in case of default committed by the debtor in the payment of amount of money due to him. (Lamudi, 2017). Such a property is not free from encumbrance.

The present article is aimed to conduct the scrutinization of a mortgage backed sukuk that is extensively practiced by financial institutions in debt financing of housing in Pakistan in the light of Sharī‘ah rulings.

2. Naya Pakistan Housing Finance
The present Government of Pakistan (PTI Government) tried to make a national policy on house financing. The present government in Pakistan has raised the slogan of “Adequate shelter for all”. Naya Pakistan Housing Program is launched by the present Prime minister of Pakistan, Imran Khan, during his sermon to public on 10th Oct, 2018. Soon after the launching of this program by Prime minister, Imran Khan, NADRA issued a registration form on its website on 11th Oct, 2018. It is also manifested by the government that mere registration is not the allotment rather it would be an application to be considered by the authorities. NADRA had been given the responsibility of identifying those who need. The application can be submitted within two months, i.e. from 22nd October to 21st December 2018, at the selected district offices. The process fee is nominal of Rs. 250 only. This housing program is targeting low income strata of the society and announced 5 million Housing units to the citizens of Pakistan. Initially this pilot program has been initiated for seven districts of Pakistan namely, Sukkar, Quetta, Gilgit, Muzafarabad, Swat, Islamabad and Faisalabad. Till now the government pledged that the government would provide the requisite land for the pilot project. Moreover, the government would play the role of regulator and facilitator to provide feasible environment for public and private sectors and non-profit organizations who would execute the project. The government would play the role of one-window facilitation center to accomplish this project.

This study would suggest the best available option with the government in the present scenario to accomplish the task of house financing of 5 million units. This study also developed a structure or model that is devoid of discrepancies both from Sharī‘ah and state law viewpoints.

3. Financial Product of Mortgage Backed Sukuk for House Financing Program
Prime Minister of Pakistan, Imran Khan, announced on October 10, 2018 the establishment of National Finance Regulatory Authority which will work with the State Bank of Pakistan to develop the financial product based on mortgage for new housing program. In the following section of this research article an effort has been made by the researchers to develop a structure of mortgage backed sukuk for housing finance project.

Private mortgages remain small and do not meet the needs and requirements of the borrower. The borrower’s best interest lies with the fact the government should intervene and supervise the loan granted to the borrower from a financial institution. It’s worth mentioning here that house financing is at the tail end of the transition from being the government-dominated towards the private-sector led industry.

Sukuk represent Islamic securities and serves as an alternative to conventional bonds and debentures. Sukuk are hybrid securities bearing the characteristics of both debt and equity securities (Pegah Zolfaghari, 2017, p. 1). Mortgage backed Sukuk was a manifestation of a move from issuance of debt security without asset at the back to asset backed security.

4. Structure of Mortgage Backed Sukuk
Mortgage backed Sukuk are actually debt based security. Mortgage backed Sukuk are in fact different from asset backed Sukuk. Asset backed sukuk are basically ijarah based sukuk which represent the equity financing, whereas, the mortgage backed sukuk are based on mortgage which represents the debt financing.

7 The detail of district offices is given here. DC Office, Military Road Sukkur; Nadra Registration Center infront of Helper Eye Hospital Sariyab Road Quetta; DC Office Khamar Gilgit; DC Office Old Secretariat Muzafarabad; DC Office District Court Gulgada Saido Shareef Road Mangora Swat; Nadra Mega Center Blue Area Islamabad and DC Office Faisalabad.
The following are the major parties involved in mortgage backed sukuk for the construction of houses:

- Borrower, he will be the owner of the underlying asset once he paid all the installments to the government which is regulating and supervising the whole process to maintain transparency. The government announces to provide land for the project of Naya Pakistan Housing Program. The government of Pakistan will mortgage the property in land or immoveable property to the credit institution for mortgage loan financing.
- Originating credit institution, the mortgagor, the creditor.
- Financial Intermediary or Special purpose Vehicle (SPV), the issuer of mortgage backed sukuk.
- Investor, the sukuk holder.

There may be numerous contracts involved in the structure or model of mortgage backed sukuk. These contracts include, the contract of hire purchase between the borrower and the government, the contract of mortgage between the government and originating credit institution, the contract between originating credit institution and financial intermediaries to whom the originating credit institution assigns its mortgagee rights and contract between Special purpose vehicle (SPV) or financial intermediary and investors. The structure of mortgage backed sukuk 8 is presented below in diagram for better understanding:

**Figure 1**

*This pictorial presentation is created by the researchers of this research paper. As a source, Malaysian model of Mortgage backed security, is consulted and analysed.*
In the process of issuance of mortgage backed sukuk, the repayments made by the initial borrowers constitute cash flows that is received by financial intermediary and financial intermediary is able to issue asset backed-sukuk or mortgage backed-sukuk or residential mortgage backed security to investors or lenders who supply funds to the financial markets. The mortgaged property forms a contingent receivable in the accounts of the financial intermediary. Mortgage loans for homes usually have a nominal life of 25 to 30 years (Pelma Jacinath Rajapakse, 2011, p. 23). As a result of above mentioned process, the mortgage backed loans will be converted into tradable securities.

Mortgage loans for homes have better recovery rates than unsecured credit card receivables. Such loans have stable history of low default risk (Pelma Jacinath Rajapakse, 2011, p. 23). The researcher argues that, reliability on underlying asset increases the repayment of credit to the lender in mortgage backed sukuk structure.

To comply with Sharī‘ah requirements, some points must be taken into consideration. The government must redeem the property in land from the credit institution within stipulated time period so that ownership of house on mortgaged land may be transferred actually to the borrower who is also required to make regular periodical payments to the government or credit institution. Such payments will provide a cash flow that will ultimately bar the default in payment of money.

The researchers argue that, Sharī‘ah compliance enhances the viability of mortgage backed sukuk because the financial sustainability of financial product is mandatory to avoid financial crisis. Furthermore, this article suggests that financial intermediary, with whom the government will enter a contract to finance house construction for the accomplishment of its Naya Pakistan Housing Program, should go for the issuance of mortgage backed securities instead of other house financing financial products because of their being more viable and Sharī‘ah compliant.

New financial institution with a name of Naya Pakistan Housing Authority is going to be established for the project of Naya Pakistan Housing Program that will provide a one window operation. HBFC has been abolished on 1st August, 2018 through House Building Finance Corporation (Amendment) Ordinance, 2018 which actually repealed the House Building Finance Act, 1952. The researchers strongly recommend that while establishing a financial institution to run the new housing scheme of the present government of Pakistan, the institution must be established keeping in view the injunctions of Holy Quran and Sunnah. No such thing should be introduced in the financial institution which will make it a controversial from Sharī‘ah viewpoint. The Sharī‘ah gaps of HBFC should be covered in the new financial institution which will replace HBFC in house financing scheme.

5. Mortgage Financing in Islamic Legal Theory
In this section of the present research paper, mortgage financing in the light of Sharī‘ah is analysed to comprehend the Sharī‘ah issues or objections which may be raised by experts in Islamic Finance Law from Sharī‘ah viewpoint in the structure of Mortgage backed sukuk for house financing program. To comprehend the mortgage financing from Sharī‘ah viewpoint, some essential details have been discussed in the proceeding part of the research paper. The term used for mortgage in Sharī‘ah is rahn. Contract of rahn is one of the types of contract of suretyship.

5.1 Definition of Contract of Rahn
According to Ḥanafi school of thought rahn means retention of anything against any right through which right can be discharged. The thing which is retained must be valuable according to Sharī‘ah so that the thing can be made security against the loan (Ibn `Ābidīn, 1992, Vol. 5, p. 339; Al-Sarakhsī, 1993, Vol. 21, p. 63). According to Shāfī school of thought in contract of rahn something is made security against the loan. According to this school of thought contract of rahn excludes the benefits from being security of loan (Al-Khaṭīb Al-Shirbīnī, n.d., Vol 2, p 121; Al-Sharqāwī, n.d., Vol 2, p 122, 124). According to Mālikī school of thought in contract of rahn any valuable thing itself or the benefit out of valuable thing can be made as a security for loan. If benefit is made security against the loan, the benefits received would be appropriated in lieu of payment of loan. In Mālikī school of thought physical possession of the thing mortgaged is not necessary for the making of the contract of rahn (Al-Dardīr, n.d., Vol 3, p 303). According to Ḥanbali school of thought in contract of rahn something valuable can be made security for the payment of loan so that in case of default of payment by the debtor or mortgagor the creditor or the mortgagee can satisfy his claim of payment of money from the value of the security (Ibn Ḥudāmah, 1968, Vol. 4, p. 326).
5.2 Legitimacy of Contract of Rahn
The legitimacy of the contract of rahn is established by Quran, Sunnah and 'Ījma'.

Quran:
Allah Almighty said in the Holy Quran:

وَإِن كُنتُم عَلَى سَمْرٍ وَلَمْ تَجْدُوا كَأَيْنَآ فَرَهْنِّي رَقْبَتُكُمْ فَلَنَّ أَمِنَ بِعَضْكُمْ بِعَضْاً فَلْيُؤْدِي الَّذِي أَوْتُمْ أَمَانَتُهُ وَلَبِينِي اللَّهُ رَبَّهُ وَلَا تَكْتُمْوا أَلْشَهْدَا وَمَن يَكْتُمْهَا فَلَيْنَأْ عَامِيُّمَا قَلْبَهُ وَاللَّهُ بِمَا تَعْمَلُونَ عَلَيْهِم".

“And if you are on a journey, and you find not a scribe then let there be pledge with possession. And if in between you one entrusts the other, then let he whom he trusted deliver his trust and fear Allah Who is his Lord and conceal not evidence; and whosoever would conceal evidence, then his heart is sinful from inside, and Allah knows your deeds”. (Sūrah Al-Baqarah: 283).

The above quoted Āyah from Sūrah Al-Baqarah indicates the permissibility of contract of rahn during journey but all the Muslim jurists agree upon the permissibility of entering into contract of rahn by the parties to the contract either on journey or not. This Āyah also indicates that contract of rahn is made permissible while there is no one available for the writing of a debt transaction. So contract of rahn was made an alternative of writing. Non availability of a person to write a debt is not a pre-requisite for the contract of rahn because of permissibility of contract of rahn without this condition in Sunnah.

Sunnah:
روى البخاري و مسلم عن عائشة رضي الله عنها "أن رسول الله صل الله عليه و سلم اشترى من يهودي طعاما و رهنه درعا من حديد


و أنس قال "أن رسول الله صل الله عليه و سلم درعا عند يهودي بالمدينة، و أخذ منه شعيرا لأهله

It is also reported on the authority of Hazrat Anas (May Allah peace be upon him) that Allah’s apostle mortgaged his armour to a Jew in Madinah and bought bread from the Jew for his family. (Saḥīḥ Al-Bukhari, n.d., Ḥadīth No. 2508, kitāb al-rahn, 1997, Vol. 3, p. 398).

’Ījmā’:
Muslim scholars agreed upon the permissibility of contract of rahn.

5.3 Legal Status of Contract of Rehan
Contract of rahn is not an exchange contract. It is not a profit earning contract. It is a contract of security. It is a gratuitous contract or aqad al-tabarruʻah (Wahbah Al-Zuhaylī, n.d., Vol. 5, p. 181). Contract of rahn is permissible in nature but not an obligatory contract (Ibn Qudāmah, 1968, Vol. 4, p. 327; Al-Buhūfī, n.d., Vol. 3, p. 307). Delivery of possession is mandatory in gratuitous contracts to make it binding or lāzim. There is a legal maxim in Islamic Jurisprudence that, لا يتم التبرع إلا بالقبض

“Gratuitous contract cannot be completed without delivering possession” (Muhammad Sidique, p. 322).
Contract of rahn is lāzim for mortgagor but not for mortgagee. Therefore, the mortgagee can rescind the contract at any time and can demand his due payment and return the property as security to the mortgagor ((AAOIFI, 2010, Shariah Standard No. 39, clause 3/1/1, p. 697).

5.4 Methods of Creation of Contract of Rahn and its Sharī‘ah Rulings

The contract of rahn can be created through following ways:

- The seller sells the commodity to the buyer. The possession of the commodity is made by the seller through delivery to the buyer. The buyer promised to pay the price of the purchased commodity on a specific future date. The seller asked the buyer to furnish the security for the payment of price on specific future date and buyer furnished the security and placed his valuable thing as security for the payment of price and entered into the contract of rahn with the buyer. This is permissible and agreed upon by the schools of thought owing to its necessity in daily life.

- In this situation firstly the loan or debt is established and later on contract of rahn is made to secure the payment of loan or debt. This is also permissible and agreed upon by the schools of thought.

- In third situation, the thing or commodity is made security and contract of rahn is entered into by the parties to the contract before the establishment of loan or debt. For instance A took 1000 rupees from B on loan and B asked A to provide security for the payment of loan and A entered into a contract of rahn with B.

According to Ḥanafī and Mālikī schools of thought this contract of rahn is valid because in this situation the contract of rahn is acknowledgment of a right like in contract of Kafālah. According to Shāfī and Ḥanbalī schools of thought such contract of rahn is not valid because according to them the creation of right is mandatory for making of contract of rahn (Abū Ishāq Al-Shirāzī, n.d., Vol. 1, p. 305).

5.5 Essential Elements of Contract of Rahn

According to Imām Ābū Ḥanīfah the only element which is required to make the contract of rahn is offer and acceptance like other types of contracts (Al-Kāsānī, 1974, Vol. 6, p. 135; Ibn ʿAbīdīn, 1992, Vol. 5, p. 340). According to majority of Muslim Jurists there are four elements of contract of rahn. The first element is offer. Second element is acceptance. Third element is tangible property which is made security for the payment of money. Fourth element is the claim of money which is taken by Rāhin from Murtahin (Al-Dardīr, n.d., Vol. 3, p. 304; Al-Khaṭīb Al-Shirbīnī, n.d., Vol. 2, p. 121; Al-Buhutī, n.d., Vol. 3, p. 307).

5.6 Conditions of Contract of Rahn

5.6.1 Conditions Pertaining to Rāhin and Murtahin

The person who is eligible to make a contract generally is also eligible to make contract of rahn because contract of rahn is also one of the types of contracts and this contract is similar to contract of bay‘ in Sharī‘ah.

5.6.2 Opinion of Ḥanafī School of Thought

According to Ḥanafī school of thought contract of rahn is a financial transaction. Thus, to make the contract of rahn valid, rāhin and murtahin must be able to distinguish between right and wrong on the basis of human intellect and reason. Majority 9 or puberty is not an essential requirement to make the valid contract of rahn (Al-Majellah, 1980, Article 708, p. 74). Therefore, the minor who is authorized to make financial transaction is also allowed to make contract of rahn because contract of rahn is collateral to commerce and trade. Sabi mumayyaz or the minor who has attained some discretion and the one who is prodigal can make the contract of rahn if the permission is granted by their guardians respectively. Guardian of minor or insane person can make a contract of rahn to secure the payment of money which is taken for the benefit of a minor or insane person. This is allowed under the pretext of necessity.

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9 According to English law minor is a person who has not attained 18 years of age. According to Majority Act, 1875 where the guardian has been appointed by the court of wards or the court of wards take charge of minor’s property, in such situation a minor will attain the age of majority after 21 years. According to Sharia’h majority of a person is not determined in terms of age but in terms of puberty.
According to Ḥanāfī school of thought if either of the parties to the contract of rahn becomes insane after entering into contract of rahn but before giving the possession of property to murtahin then contract of rahn will become bāṭil (Al-Kāsānī, 1974, Vol. 6, p. 135).

5.6.3 Opinion of Majority of Muslim Jurists
According to Majority of Muslim Jurists, contract of rahn can only be allowed on the behalf of minor by his guardian in case of necessity or for the benefit of minor. Contract of rahn is one of the types of gratuitous contracts and it is also not obligatory. Thus, it is not allowed to a person who has been coerced or the one who is insane or prodigal or insolvent to enter into a contract of rahn. According to Majority of Muslim Jurists guardian or trustee is entrusted with the right to make contract of rahn on the property of minor and murtahin must be in such situation a trustworthy person. Murtahin must also be a rich man. Witnesses must also be there while making contract of rahn. The time period for which the contract of rahn is made must also be a short span of time. If any of the conditions is missing, the contract of rahn will not valid according to them. Guardian of the property of the minor is also not allowed to make contract of rahn on the property of minor for the security of a payment of money which is due on the guardian in favour of any other person (Al-Dardīr, n.d., vol 3, p 231-292).

According to Shāf‘ī and Ḥanbalī schools of thought, if either of the parties to the contract of rahn becomes insane after entering into contract of rahn but before giving the possession of property to murtahin then contract of rahn will not become bāṭil (Al-Buhutī, n.d., Vol. 3, p. 309). According to Mālikī school of thought if rāhin dies or becomes insane or insolvent or suffering from such a disease cure from which is impossible then contract of rahn will become bāṭil (Al-Dardīr, n.d., Vol. 3, p. 231-292).

According to Shariah Standard No. 39, the death of the rāhin or the murtahin has no effect on the validity of the contract of rahan. The respective inheritor shall substitute the dead party to the contract (AAOIFI, 2010, Shariah Standard No. 39, clause 3/1/5, p. 398).

5.7 Conditions Pertaining to Claim of Money
The conditions pertaining to a claim of money for the security of which the contract of rahan is created between rāhin and murtahin includes that the claim must be determined; established and enforced no matter what is the source of creation of that claim. The claim must be known and specified (Ibn Jazzy, n.d., p 232).

5.8 Conditions Pertaining to Property
The following are the conditions pertaining to property in the contract of rahn (Ibn Rushd Al-Hafid, 1988, vol 2, p 269,270):

- The property must be one of those things in which transaction is permissible in Sharī‘ah.
- The property must be known and specified.
- The property must be capable of taking into possession.
- Possession of the property must be given to murtahin by rāhin with his free consent.
- The property can be moveable or immoveable. It can also be mithlī or ghair mithlī.
- The property must exhibit some monetary and legal value.
- The nature of the property must be such that it is capable of being sold. Therefore property must be in existence and capable of taking possession of it at the time of making of contract of rahn.
- Physical possession of the property must be given to murtahin.
-Usufruct or interest in the property cannot be transferred to murtahin from rāhin such as to allow murtahin to use or to get benefit from property in consideration of a claim of money. This opinion is exhibited by majority of Muslim scholars. According to Mālikī school of thought usufruct or interest in the property can be transferred to murtahin by rāhin in consideration of a claim of money.
- The property must be in the ownership of rāhin. This is the condition for the enforcement of contract of rahn.
- The property must be of sufficient value so that the amount claimed can be recovered in case of need.

The general rule is that everything on which contract of sale can be made can also be the subject-matter in a contract of rahn (Liaquat Ali Khan Niazi, n.d, p. 287).

5.9 Condition of possession of property
Muslim jurists agreed upon the condition of possession of property in the contract of rahn. But Muslim jurists differ in their opinions in determining the nature of condition of possession. According to Majority of Muslim Jurists (Ḥanafī, Shāfʻī and Ḥanbalī) possession of property is a condition to make the contract of rahn lāzim. Possession of property is not a condition for the validity of contract of rahn. Before possession contract of rahn is not lāzim for rāhin. Thus, rāhin can rescind the contract of rahn before giving possession of property (Al-Kāsānī, 1974, Vol. 6, p. 137; Abū Ishāq Al-Shirāzī, n.d., Vol. 1, p. 305; Ibn Qudāmah, 1968, Vol. 4, p. 328). Their opinion is substantiated with the dālīl (evidence) from Holy Quran that Allah Almighty said:

\[
وَإِذَا كُنْتُمْ عَلَى سَمَٰعٍ وَلَا تَجِدُوا كَاتِبًا فَإِنَّ الْقَرْآنَ عِنْدَ اللَّهِ أُمَّةً
\]

And if you are on a journey, and you find not a scribe then let there be pledge with possession. And if in between you one entrusts the other, then let he whom he trusted deliver his trust and fear Allah Who is his Lord and conceal not evidence; and whosoever would conceal evidence, then his heart is sinful from inside, and Allah knows your deeds”. (Surah Al Baqarah: 283).

Above quoted ayah indicates that contract of rehan cannot be completed without delivering the possession of property from rāhin to murtahin. Furthermore, Contract of rahn is one of the types of gratuitous contracts therefore it needs delivery of possession of property from rāhin to murtahin for its completion.

According to Mālikī school of thought delivery of property from rāhin to give its possession to murtahin is not the condition for the completion of contract of rahn. According to this school of thought contract of rahn becomes lāzim merely by offer and acceptance. Rāhin will be forced to give the possession of property except where murtahin delays or rāhin becomes insolvent or dies. If murtahin delays deliberately in demanding the possession of property from rāhin or if rāhin agrees on not to take possession of property from rāhin and property will remain in the possession of rāhin then in such situation the contract of rahn becomes bāṭil (Ibn Rushd Al-Ḥafīd, 1988, Vol. 2, p. 271; Ibn Jazzy, n.d., p. 323; Al-Dardīr, n.d., Vol. 3, p. 313).

5.10 Perpetuity in Possession by Murtahin

The researchers argue that the property must be in possession of murtahin till the property will be redeemed by rāhin after the payment of money. Contract of rahn is lāzim only for rāhin and not for murtahin. Murtahin can demand his money back at any time and want to end the contract. Murtahin is entitled to do so. Thus, property can be redeemed by rāhin before the payment of money becomes due if murtahin wishes so.

After the conclusion of contract of rahn between rāhin and murtahin if property is sent back to rāhin by murtahin then in such a situation the contract of rahn becomes bāṭil according to Mālikī school of thought (Al-Dardīr, n.d., Vol. 3, p. 313). According to Ḥanafi school of thought in such a situation the contract of rahn does not become bāṭil.

How to Give the possession of property to make Contract of Rehan


Muslim jurists differ in their opinions in case of moveable property that what constitutes the fact of giving possession. According to Ḥanafī school of thought in case of moveable property possession is exhibited by abandonment of property only (Al-Kāsānī, 1974, Vol. 6, p. 138). On the other hand, according to Shāfʻī, Ḥanbalī

According to Shariah Standard No. 39 the possession of marhūn takes place as possession of a sold property. The possession could be actual by putting a hand on the property or it could be legal through registration and documentation. Same legal rules apply to both types of possession (AAOIFI, 2010, Shariah Standard No. 39, clause 3/1/2, p 697). Rāhin and murtahīn may agree to deliver the possession of property to an upright third person as a trust (Al-Majellah, 1980, Article 705, p. 74).

6. Conclusion and Recommendations
This research paper concludes that Sharī‘ah impediments must be taken into consideration by the issuing authority to make the structure of Mortgage backed sukuk to be Sharī‘ah compliant. Loans granted on the mechanism of mortgage backed sukuk are relatively better recovery rates than unsecured loans because of the presence of an underlying asset and an encumbrance in the form of mortgage on an underlying asset. This research article recommends that SPV management must be separate from the management of originating mortgage backed sukuk authority to ensure that the credit quality of originator of mortgage backed sukuk is separate from the credit quality of issuer (SPV) of mortgage backed sukuk.

This article, furthermore, recommends the establishment of Sharī‘ah supervisory board. The Government of Pakistan along with the financial institution which will work in collaboration for house financing should consult Sharī‘ah experts for their valuable opinions before launching the financial product so that it will not deviate from the injunctions of principles of Islamic Finance Law. Besides this, Sharī‘ah supervisory board should be established which may provide guidance about Sharī‘ah regulatory framework for the financial product of Mortgage backed sukuk for house financing project of the Government.

References


Role of Job Designs in Determining Employees’ Work Motivation in Banking Sector of Multan City, Pakistan

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ARTICLE DETAILS

ABSTRACT

This article presents theoretical and empirical underpinnings between job designs and employees’ work motivation in banking sector of Multan city, Pakistan. The study adopted a cross-sectional survey research design in which 362 employees participated through simple random sampling technique. The findings of the study revealed that female employees are more motivated towards their jobs than male employees. Moreover, job characteristics and job rotation are high among senior bank employees having experience greater than 12 years. The study concluded that job enrichment is the highest influential factor in determining employees work motivation while quality of work life is negatively influencing their enthusiasm level towards job. In the wake of new technological transformations, academic insight into the current work would further guide the policy makers for designing the jobs for banking sector through decentralization of managerial powers, changing in accordance with the global trends, as well as applying autonomous, mastery oriented and purposefully directed policies.

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JEL Classification
I24, J54, J28

1. Introduction

Job Designs (JDs) is theoretically defined as managerial determination to create and streamline different aspects of job substantially. Accordingly, jobs are mainly premeditated to identify the needs of employees and exterminate various obstacles that exasperate these needs (Ivancevich et al., 1990). These designs play an imperative role in increasing the organizational productivity through employees’ engagement, reassurance and involvement in job
activities (Cox, 1994; Morgeson & Campion, 2003). When jobs are designed in an adequate way, then employees become more motivated and passionate towards organizational progress. Moreover, they become determined towards an eventual goal of customer care services (Bates, 2004). For that reason, JDs can synchronize the organizational activities through employees’ involvement in their designed tasks (Zareen & Razzaq, 2013).

In 1900, JDs was introduced as an empirical construct in scientific management approach affecting Employees’ Work Motivation (EWM) for organizational progress (Oldham & Hackman, 2010) which was further used as a debate for employees’ retention, their turnover rate and job resilience through differential motivational levels in their respective jobs. Over the past decade, human resource researches have mentioned that organizations should centered their JDs solely on Job Characteristics (JC) (Rich et al., 2010) but now Job Enrichment (JE), Job Rotation (JR) and Quality of Work Life (QWL) are also added as the major dimensions of JDs (Parker & Wall, 1998; Robbins, 2001).

According to the research conducted by Taylor (1911), jobs must be designed according to the abilities, gender segregation and working experience of the employees (also see Parker & Wall, 1998). Therefore, management is responsible for facilitating the employees in accordance with their allocated works (Morgeson & Campion, 2003; Parker et al., 2001). In view of that, two major theoretical frameworks conceptualize the dynamics of this issue. One is Herzberg's two-factor theory (1974a) which focuses on nature of JDs and its role in maximizing the work output. The second approach is Hackman & Oldham's JC theory (1976) which concentrates on the nature, dimensions and content of JC within an organization. In connection with these theoretical frameworks, Griffin (1991) worked on EWM in banking sector. This study was based on boredom as a major factor for demotivating bank employees as they do the same kind of jobs such as cashiers, depositors and loan payment procedures. Afterwards, Ugboro (2006) conducted a research on JDs that was the leading factor for organizational performance such as innovative action taking in jobs.

In recent past, the differential aspects of Management Sciences illustrates a deep concern in investigating the dyad constructs of JDs and EWM in banking sector (Rich et al. 2010). In light of these theoretical gaps (Campion, 1988; Cheng, 1995; Deeprose, 1994; Zareen & Razzaq, 2013), the present study is targeted towards investigating the differential dynamics of JDs affecting EWM in banking sector. Although the context of Pakistan is facing acute dearth of empirical facts about the present phenomenon (Ali & Rehman, 2014), but the recent study deliberated that the greatest challenge in banking sector of Pakistan is to provide quality of services provision to the customers due to demotivated employees. The major reason behind this demotivation is inadequate fulfillment of job needs which ultimately rendered customer care services (Khan et al., 2010). Unfolding this fact, the vicinity of Multan city is considered to be less developed but still there is mushroom growth of banks in urban areas. Therefore, the present study focused its nexus on interrogating the relationship between JDs and EWM in banking sector of Multan city, Pakistan.

2. Theoretical Framework

2.1 Herzberg's Two Factor Model

The theoretical underpinnings of Herzberg two-factor model were centered on two types of factors i.e. external/hygiene and internal/motivators for determining EWM in their organizational job. These abstract notions indicated that hygiene factors are external to the work activities and does not fluctuate EWM to larger extent. These factors included working conditions in an organization, salary payments to employees, management tasks and various organizational policies. Conversely, intrinsic factors/motivators can play an imperative role in fluctuating employees’ motivation in their job activities (Herzberg, 1974b). These factors comprise of recognition in job designation, personal growth and internal satisfaction of employees. In accordance, Herzberg (1966) believed that hygiene factors cause dissatisfaction among employees which can be eliminated by providing them better pay scale, ensuring employee job security and create positive working conditions in an organization. Conversely, motivators create job satisfaction among the employees through achievement, recognition, challenging work activities, sense of responsibility and involvement in decision making (Herzberg, 1979; 1987). Pertaining to this context, jobs should be designed by incorporating the major organizational perspectives such as JE, JR, JC and QWL as prerequisites for JDs (Herzberg, 1965; 1974a).

2.2 Job Characteristics Theory
The theory was put forward by Heckman & Oldham (1976) to find out the worthwhile strategies for redesigning the organizational jobs. The major assumptions of the theory focused on JC which lead towards positive working conditions and EWM. According to the assumptions of Oldham et al. (1976), there are varied dimensions of JC such as variety in skills of employees, significance in task accomplishment, autonomy as well as feedback. The hypothetical postulates of this theory set forth the idea of intrinsic motivation to be linked with defining the psychological states and EWM in their job. Moreover, appropriate JDs must be internally motivated, satisfied with personal growth opportunities and have lower turnover rate. The narrated psychological states further included adequate work assigned in an organization, responsibility of JDs as well as knowledge about work activities of the employees. These implications of JDs are imperative as they determineworth, value, applicability and relevance of works assigned to the employees (Loher et al. 1985; Zhang & Von Dran, 2000).

Table 1: Dimensions of JC in JDs and their Description

<table>
<thead>
<tr>
<th>Dimensions of JC</th>
<th>Description of JDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill variety</td>
<td>Extent to which job provides basic skill variety among employees. It involves the skills and talents of employees. Employees use cross functional tasks in any organization.</td>
</tr>
<tr>
<td>Task identity</td>
<td>Job requirements in relation to different tasks can identify the abilities of employees. The assigned job work must be identifiable with visible outcomes for organizational progress. The employees own the tasks and select it by themselves.</td>
</tr>
<tr>
<td>Task significance</td>
<td>There is a clear link between employee’s relations and their differential task components. This variable shows the relationship between related tasks and accomplished tasks of the employees.</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Autonomy refers to the freedom, liberty and independence provided to the employees in planning and implementing the organizational tasks. Employees are empowered and respected in which the hierarchies are flexible.</td>
</tr>
<tr>
<td>Feedback</td>
<td>Feedback involves direct and clear information about job and work activities. This dimension is related with employees performance in job.</td>
</tr>
</tbody>
</table>

Source: (Hackman & Oldham, 1976)

2.3 Theoretical Application in the Current Study

According to the work of Draft & Marcic (2010), previous empirical literature and theoretical evidences of Herzberg two factor model is inadequate to cover all the aspects of EWM in an organization. In this regard, job characteristic theory must be fitted together for investigating EWM in an organization. Still then, previous literature in the global context (Griffin, 1991; Gunasekara & Kulathunga, 2011; Khan et al. 2010; Wrzesniewski & Dutton, 2001) argued that there is an acute dearth of literature on this present topic which demands the new empirical evidences.

Contextually, Pakistan is also lacking the appropriate empirical facts on the stated study issue but still there are few studies in the Asian context. For example, a study conducted by Teck-Hong & Waheed (2011) addressed the effects of motivators on employees’ work performance. In this study, the working conditions in an organization were the considerable variables that could increase EWM in an organization. Moreover, the study conducted by Gunasekara & Kulathunga (2011) in private banking sector of Sri Lanka depicted the level of motivation with JDs. Given the acute dearth of literature on the present phenomenon in Pakistan, there is an eventual need to embark on more research addressing the motivation of employees in banking sector (Khan et al. 2010).

Based on these theoretical assumptions, the discussed variables are centered on motivational approach which depicted the autonomous decision making and differential professional skills among the bank employees. These job spheres make meaningful and task oriented approaches for personal growth of employees (Draft & Marcic, 2010). Relating this, the dimensions of predictor variable i.e. JDs (JE, JR, JC and QWL) along with description are described below:

Table 2: Operationalized Descriptions of JDs

<table>
<thead>
<tr>
<th>Approaches of JDs</th>
<th>Description of JDs approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>
This technique entails variety in work assigned to employees according to their designation. It includes knowledge, talents, skills, working commitment, dedication to organization and working experience. The operationalization of this variable included greater autonomy, higher level of knowledge acquisition, variety in work performance and opportunities of personal growth.

This technique entails the rotation of employees’ job positions to enhance their skill development. It includes job focus and hard work of the employees in organizational context. The operationalization of this variable included flexibility, variety, novelty, competitiveness and opportunities for active involvement.

The internal factors of job characteristics are technology, performance and organizational environment while the external factors are non-availability of the technology. The major characteristics of this variable included variety of skills, identity and significance of tasks, autonomy and feedback.

This technique enhances the dignity of workers and changes in organizational culture. It also includes various physical, psychological and economic factors that are mainly targeted towards humanizing the professional work. The operationalization of this variable included the opportunity for active involvement, working conditions, working hours and fair compensation (in the form of rewards).

Source: Draft & Marcic (2010)

3. Methods and Materials
3.1 Research setting and Sampling procedure
The empirical research was conducted in Multan city which has the central importance in South Punjab, Pakistan. The data were gathered from the employees’ working in four leading banks of the study locality, namely Habib Bank Limited (HBL), United Bank Limited (UBL), Faisal Bank Limited (FBL) and Allied Bank Limited (ABL). The type of employees in the said banks included front desk agents, cashiers, guest attendants, account openers, procedural employees and senior bankers. During informal discussions, the bank employees argued that they have low pays as compared to their long working hours therefore they become less motivated towards professional work and more intended towards job turnover. Sequentially, lack of motivation among employees is also responsible for their inadequate customer care services.

For the purpose of data collection, bank management was contacted using a letter indicating the purpose of the study as well as respondents’ criterion and permission for data collection. After ensuring the research purpose, the management of each bank was agreed to survey their employees. The respondents were asked to write down a unique alpha-numeric code number at the top of envelop which contains a questionnaire. This code comprises of first alpha letter of the bank name followed by the serial number of letter and then designation of the employee. For example, the first Front Desk Employee (FDE) surveyed from HBL was coded as HBL-01-FDE. The survey was conducted between the time span of 17th March, 2018-5th June, 2018. The respondents were then awarded with a certificate in which their experience was mentioned for participating in the research. This certificate was duly signed by the researchers and manager of the respective bank. Furthermore, the document was given as research ethical reciprocity which further assists the bankers to strengthen their Curriculum Vitae (CV) for promotion.

In the given study, the researchers selected the sample from 4 leading banks in Multan city, Pakistan. Multan city is mainly divided into 4 towns according to Government of the Punjab, Local Government and Rural Development Department. From totality of mentioned towns, 2 were randomly selected as the geographical area has similar socio-cultural dynamics which can be generalized to the other towns. Accordingly, 3 branches from each bank were selected randomly from the sampled towns, giving a sum of 24 branches. From each bank, 6 employees were targeted from these subsequent categories such as front desk agents, cashiers, guest attendants, account openers, procedural employees and senior bankers. These 6 categories of employees were uniformly selected so that each
category can be represented by ensuring the heterogeneity of the population. A total of 432 bank employees were sampled out through the above cited sampling procedure. From the distributed questionnaires, 372 were mailed back to the researchers. The mailed questionnaires with the secret code were then compiled from which 4 questionnaires were inadequately filled with blue and red ink spots on the answers (declared as not readable) while 6 were 80 percent blank. Therefore, these questionnaires were excluded and the remaining 362 were used for further data analysis. As the response rate was 83.79 percent so the results of the sample were considered adequate enough to generalize on the population.

3.2 Instrument Development

The first page of each questionnaire consisted of assurance letter about the anonymity and confidentiality of employees personal information. Along with this page, consent letter and an alternative opt-out letter was attached that allows the respondents to ensure their participation in the survey. The questionnaire consisted of four parts that contains all the information about the respondents profile, dimensions of JDs and EWM towards job retention. The relational questions were also asked to enhance the respondents understanding about the research instrument. All the questionnaires had the random code number that was followed by bank name i.e. UBL so that number of questionnaires from each bank could easily be identified.

The instrument of the study consisted of three major parts. The first part comprised of demographic profile of the respondents in which the questions related with age, gender, education and working experience of bank employee were asked. The subsequent second part used five-point Likert scale in addressing varied dimensions of JDs i.e. JE, JR, JC, QWL. The last part of the instrument contains EWM which is used as the response variable in this instrument.

The variables used in the scales were subsequently checked for number of items and inter-item consistency for the respective variables. With reference to the instrument, the scales related with JC and QWL has Cronbach’s alpha value of 0.671 and 0.687 respectively, which is considered as good values. Moreover, JR (α=0.793) and JE (α=0.856) have also fairly good values of reliability coefficient. Inversely, EWM (as the response variable) constituted 7 items with Cronbach’s alpha value of 0.795 which is considered to be good and reliable.

3.3 Statistical Data Analysis

EWM, JC, JE, JR and QWL were assessed using a scale comprised of seven-items, five-items, six-items, five-items and five-items, respectively. These scales were measured on 1-5 response categorizes i.e. strongly disagree, disagree, neutral, agree and strongly agree. SPSS version-23 was used to analyze the relationship of independent variables i.e. JC, JE, JR and QWL with response variable i.e. EWM. The data analysis mainly consisted of three steps. In first step, demographic profile was measured through descriptive statistics i.e. frequency and percentage. In second step, group differences of gender and working experience among study variables were examined using independent sample t-test and one-way Analysis of Variance (ANOVA). The third and final step consisted of testing the hypothesized model by using multiple linear regression modeling i.e. IV: JC, JE, JR, QWL → EWM by means of adapted regression model from Heckman & Oldham (1976) for JDs.

4. Results

The demographic characteristics verified that N=195 (53.9%) respondents belonged to the age group of 31-40 years. More than half respondents i.e. N=236 (65.2%) were male employees. The education level divulged that N=160 (44.2%) were graduated in business administration or some other equivalent degree. The working experience of N=128 (35.4%) participants was 1-6 years. The frequency range illustrated that N=81 (22.4%) respondents were senior bankers while N=32 (8.8%) were front desk agents for provision of basic information and customer care guidance (see Table-1).

As per hypothetical framework, the gender difference was demonstrated by using independent sample t-test with Means ± Standard Deviation (SD) of all the variables at the significance level of p<0.05. The results illustrated that JC, QWL, JE and EWM are higher among female respondents than male employees in which the significant differences does not remain intact. Conversely, JR is more prevalent among male respondents than female employees (Table-4).
The major hypothetical statements also demand the differences in JDs across working experience of employees. For this reason, one-factor ANOVA with multiple comparison tests (least significant difference) was used to analyze the differences in the said variables. In case of JC, there is no significant difference between the said age groups in working experience. Still then, JC are high among the respondents that have more than 12 years experience. With accreditation of the said results, it is verified that QWL is higher among the respondents that have 7-9 years of experience. In addition, JR is significantly high among the respondents that have more than 12 years experience in banking sector. Furthermore, JE was significantly high among the respondents that have 4-6 years experience. Resultantly, EWM was high among the employees who have 4-6 years of experience.

Table-6 shows the descriptive statistics i.e. Means and SD along with correlation among predictor variables. The results endorsed that JC was negatively correlated to QWL and JR (r=-0.200 and r=-0.125, p<0.05) while it divulged the positive correlation with JE (r=0.133, p<0.05). The extended statistical facts elaborated that QWL was positively correlated to JR (r=0.175, p<0.01) and negatively correlated with JE (r=-0.129, p<0.05) while JR was negatively correlated with JE (r=-0.045, p<0.05).

Table 3: Demographic Profile of the Sample (n=362)

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of the Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1=&lt;20 years</td>
<td>25</td>
<td>6.9</td>
</tr>
<tr>
<td>2=21-30 years</td>
<td>107</td>
<td>29.6</td>
</tr>
<tr>
<td>3=31-40 years</td>
<td>195</td>
<td>53.9</td>
</tr>
<tr>
<td>4=41-50 years</td>
<td>35</td>
<td>9.7</td>
</tr>
<tr>
<td>Gender of the Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1=Female</td>
<td>126</td>
<td>34.8</td>
</tr>
<tr>
<td>2=Male</td>
<td>236</td>
<td>65.2</td>
</tr>
<tr>
<td>Education of the Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1=Post graduate in buisness management/equivalent</td>
<td>139</td>
<td>38.4</td>
</tr>
<tr>
<td>2=Graduate in buisness management/equivalent</td>
<td>160</td>
<td>44.2</td>
</tr>
<tr>
<td>3=Other appropriate for banking jobs</td>
<td>63</td>
<td>17.4</td>
</tr>
<tr>
<td>Experience of the Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1=&lt;1 year</td>
<td>23</td>
<td>6.4</td>
</tr>
<tr>
<td>2=1-3 years</td>
<td>128</td>
<td>35.4</td>
</tr>
<tr>
<td>3=4-6 years</td>
<td>128</td>
<td>35.4</td>
</tr>
<tr>
<td>4=7-9 years</td>
<td>96</td>
<td>26.5</td>
</tr>
<tr>
<td>5=10-12 years</td>
<td>128</td>
<td>35.4</td>
</tr>
<tr>
<td>6=&gt;12 years</td>
<td>115</td>
<td>31.8</td>
</tr>
<tr>
<td>Type of Bank Employee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1=Front desk agents</td>
<td>32</td>
<td>8.8</td>
</tr>
<tr>
<td>2=Cashiers</td>
<td>75</td>
<td>20.7</td>
</tr>
<tr>
<td>3=Guest attendants</td>
<td>42</td>
<td>11.6</td>
</tr>
<tr>
<td>4=Account openers</td>
<td>59</td>
<td>16.3</td>
</tr>
<tr>
<td>5=Procedural employees</td>
<td>73</td>
<td>20.2</td>
</tr>
<tr>
<td>6=Senior bankers</td>
<td>81</td>
<td>22.4</td>
</tr>
</tbody>
</table>

Table 4: Mean ± standard deviation gender differences by using independent sample t-test (n=362)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>JC</td>
<td>3.70±.80[a]</td>
<td>3.62±0.60[a]</td>
</tr>
<tr>
<td>QWL</td>
<td>4.41±0.35[a]</td>
<td>4.37±0.40[a]</td>
</tr>
<tr>
<td>JR</td>
<td>4.06±0.71[a]</td>
<td>4.09±0.77[a]</td>
</tr>
<tr>
<td>JE</td>
<td>4.05±0.66[a]</td>
<td>3.88±0.85[a]</td>
</tr>
<tr>
<td>EWM</td>
<td>4.17±0.42[a]</td>
<td>4.11±0.58[a]</td>
</tr>
</tbody>
</table>

[a]Lowercase letter represent non-significant difference between female and male respondents (P <0.05)
Table 5: Mean ± standard deviation working experience differences by using one-factor ANOVA (n=362)

<table>
<thead>
<tr>
<th>Variables</th>
<th>&lt; 1 year</th>
<th>1-3 years</th>
<th>4-6 years</th>
<th>7-9 years</th>
<th>10-12 years</th>
<th>&gt; 12 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>JC</td>
<td>3.47±0.62a</td>
<td>3.69±0.70a</td>
<td>3.63±0.66a</td>
<td>3.65±0.67a</td>
<td>3.55±0.76a</td>
<td>4.02±0.51b</td>
</tr>
<tr>
<td>QWL</td>
<td>4.26±0.42a</td>
<td>4.38±0.25a,b,c</td>
<td>4.29±0.53a,b,c</td>
<td>4.53±0.36c</td>
<td>4.42±0.39b,c</td>
<td>4.40±0.15a,b,c</td>
</tr>
<tr>
<td>JR</td>
<td>4.14±0.64b,c</td>
<td>4.15±0.53b,c</td>
<td>3.95±0.78a,b,c</td>
<td>4.12±0.78b,c</td>
<td>3.8±1.05a</td>
<td>4.32±0.71c</td>
</tr>
<tr>
<td>JE</td>
<td>3.89±0.67b</td>
<td>4.02±0.84b,c</td>
<td>4.24±0.76c</td>
<td>3.75±0.83b</td>
<td>4.2±0.36c</td>
<td>3.43±0.95a</td>
</tr>
<tr>
<td>EWM</td>
<td>4.09±0.37b,c</td>
<td>4.30±0.53d</td>
<td>4.40±0.37d</td>
<td>3.97±0.66b</td>
<td>4.24±0.42c,d</td>
<td>3.66±0.54a</td>
</tr>
</tbody>
</table>

Different lowercase letters represent significant difference of JC, QWL, JR, JE and EWM among different working experience groups of the bankers (p-value<0.05).

Table 6: Correlation Analysis (n=362)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JC</td>
<td>3.65</td>
<td>0.67</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QWL</td>
<td>4.38</td>
<td>0.38</td>
<td>-0.200**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JR</td>
<td>4.08</td>
<td>0.75</td>
<td>-0.125*</td>
<td>0.175**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>JE</td>
<td>3.94</td>
<td>0.80</td>
<td>0.133*</td>
<td>-0.129*</td>
<td>-0.045</td>
<td>1</td>
</tr>
</tbody>
</table>

**Significant (P < 0.01) & *Significant (P < 0.05)

Figure 1: Path Estimates Model

Table 7: Standardized Regression Weights Analysis(n=362)

<table>
<thead>
<tr>
<th>Dependent</th>
<th>Independent</th>
<th>Estimate(β)</th>
<th>SE</th>
<th>t</th>
<th>P</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>EWM</td>
<td>&lt;--- JC</td>
<td>0.068</td>
<td>0.030</td>
<td>2.282</td>
<td>0.022</td>
<td>Significant</td>
</tr>
<tr>
<td>EWM</td>
<td>&lt;--- QWL</td>
<td>-0.049</td>
<td>0.052</td>
<td>-0.939</td>
<td>0.348</td>
<td>Non-significant</td>
</tr>
<tr>
<td>EWM</td>
<td>&lt;--- JR</td>
<td>0.179</td>
<td>0.026</td>
<td>6.792</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>EWM</td>
<td>&lt;--- JE</td>
<td>0.456</td>
<td>0.025</td>
<td>18.564</td>
<td>0.000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Before conducting the multiple linear regression model, the goodness of fit of the model was tested. Overall the model was well fit to the data and predictor variables explain the variation in response variable ($R^2 = 0.531$, $F = 101.019, P < 0.01$). In this case, $R^2 = 0.531$ demonstrated 53.1% variance in EWM which is also explained in the predicting variables i.e. JDs. These statistical facts authenticated that with a unit increase in JDs leads towards increasing EWM. The results of standardized regression weights are also illustrated in Table 7 (see Fig-1). The above cited findings in the same table indicates that JC (skill variety, task significance, task identity, autonomy and feedback) have significant and positive impact on EWM towards their job ($β = 0.068, t = 2.282, P < 0.05$). Likewise, QWL (i.e. opportunity for active involvement, flexible working hours, working environment, working conditions as well as active and fair compensation) has negative implications on EWM ($β = -0.049, t = -0.939, P > 0.05$). In approximation, JR (variety, novelty, competition, effectiveness and flexibility) illustrated significant and positive impact on EWM ($β = 0.179, t = 6.792, P < 0.001$). Finally, JE variable (greater variety of work, higher level of knowledge skills, greater autonomy, control over their performance and opportunity for personal growth) has high, significant and positive impact on EWM in banking sector of the study vicinity ($β = 0.456, t = 18.564, P < 0.001$). Similarly, it is noticeably evident that JC, JR and JE have significantly positive impact on EWM in banking sector of the discussed locality (see Fig-1).
5. Discussion
The concept of JDs has its roots in Social Sciences and Management researches which mainly aimed at increasing the organizational productivity and employees' work efficiency through their motivational levels (Kondalkar, 2013; Morgeson & Humphery, 2006). The results of the present study were consistent with the previous findings of Garg & Rastogi (2006) who mentioned that JDs are very important as they motivated the employees for meaningful productive activities. Contrariwise, ambitionless and disorganized jobs can only be attributed as "arbitrary group of activities" (Campion, 1988). In compliance with the present research, previous literature also endorsed multidimensional aspects of JDs that result in employee motivation and performance appraisals (Osland et al. 2001).

The results of the present study also put forth variance across EWM in relation with their JDs across the targeted banks. Previous studies endorsed that age groups (Bushra et al. 2011), gender segregation (Bender et al. 2005), education level and working experience (Karatepe & Tekinkus, 2006) put forth differential levels of motivation among employees (Herman et al. 1975; Riordan & Shore, 1997). In terms of gender differences, female employees showed higher motivation level in their jobs in comparison with male employees. These findings are antagonistic with the previous work of Hechanova et al. (2006) which depicts that male employees are more motivated to work in any organization as compared to female employees.

The results of the present study also divulged that JE is the most influential and variance producing factor in fluctuating EWM. Therefore it must be preferably considered while designing a bank job. This major finding is also related with the work of Griffin et al. (2010) who argue that enriched jobs play an imperative role in increasing employees' motivation. The major reason is that employees get acquainted with monetary and promotional incentives. Thus, enrichment move towards employee-centered approach because the designed jobs provide a sense of involvement, commitment and motivation which in turn ensures employee higher retention and their lower turnover intent.

Afterwards the findings revealed that JC which was formally considered as the sole dimension of JDs was also considered to be the ultimate predictor for determining EWM. In compliance with this finding, Kreitner et al. (2002) have argued that JC such as variety attributed to employees skills, work identity, relevance of tasks assigned to them, as well as autonomy provision and feedback from senior staff can increase EWM in their organization. In approximation, the findings from simple linear regression and hierarchical linear regression show that JR has the significant relationship with EWM. In compliance with this finding, the research work of McShane & Von Glinow (2015) argued that JR can increase EWM through several ways such as multitasking, transfer to other branches and new recruitment on differential positions in banks. This dimension is used for redesigning jobs as the employees feel less boredom and more motivated towards their job.

On the contrary to previous studies, the present findings show that QWL (i.e. opportunity for active involvement, flexible working hours, working environment, working conditions as well as active and fair compensation) has negative implications on EWM. The empirical work conducted by Ivancevich et al. (1990) and Igbaria et al. (1994) endorsed that QWL directly influences employees trust, involvement and problem solving which in turn affects their commitment towards organizational progress.

6. Conclusion
In conclusion, JDs is the major nexus that motivates the employees in banking sector of Multan city, Pakistan. Motivated employees are more beneficial towards the development of an organization than non-motivated employees. Moreover, high retention rate, lower turnover intent and job sustainability are the major aftermaths of employees motivational behaviour in their respective job positions. The concluding remarks about gender segregation explicate that rotating a job becomes more prevalent and facilitated among male employees but still, female employees are more motivated towards their jobs in comparison to their male counterparts due to their autonomous, task oriented and professional behaviour. In addition, bank employees who are more experienced i.e. >12 years have more skill variety, task significance, autonomy, professional effectiveness, competition and flexibility to rotate their job while less experienced bank employees have more enriched behaviour in their job. Although JC, JE and JR as the major JDs have the significant, linear and positive relationship with EWM but the highest influential and variance producing predictor is JE. Contrariwise, QWL negatively affects EWM as the wage compensations and fluctuation in working hours does not affect employees motivational states.
Although the researchers keenly focused on differential dimensions of employee motivation through varied JDs but still there are some limitations of the study. In view of that, the present research only focuses on Herzberg’s two factor model and job characteristics theory to depict employees’ motivation in banking sector. In this context, future researches should incorporate leadership styles, feedback approaches from customers and relationship with higher managerial staff that have domineering effect on employee motivation for their personal development and organizational sustainability. Another limitation is the usage of quantitative research method using a cross sectional design for data collection but the future researches must incooperate triangulation. Lastly, the sample size, public-private sector divide in banking organization, and rural-urban division in specified locales creates the issues of generalization which should be addressed in the future researches.

On the basis of this research study, the following recommendations are haul out which can improve the motivation of employees in banking sector of the said locale.

1. Bank employees should be recognized for their extra efforts, efficient job activities, financial incentives and job promotions through decentralization of managerial powers.
2. To retain the enthusiasm of employees in their work activities, there must be variety in job positions and transfers. In this manner, the employees get more acquaintance which compelled them in their assigned tasks.
3. When the customers are provided with speedy and qualitative services then they will retain their accounts in banks. Ultimately, banks will be more facilitated with money and employees get extra socio-economic benefits.
4. JDs must be changed according to the changing global trends in banks. In this way, employees becomes trained, invigorated and expedited accordingly.
5. Banking sector must ensure self-directed behavior (autonomous), overcoming challenges (mastery oriented) and targeted towards larger organizational goals (purpose directed) among employees to motivate and retain them in their dispensed jobs.

References


Foreign Inflows and Poverty in Pakistan: A Quantitative Approach

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ABSTRACT

Foreign Inflows (FI) acquire immense importance for the open economy. Empirical as well as theoretical findings highlight that FI intensely affect the economic state of the host country. Important issue in this respect is to examine the impact(s) of FI on poverty. The study was based on data from 1972 to 2017. It is concluded a long term relationship between poverty and FI. At large, FI do exhibit having opposite relationship with poverty. Moreover, poverty being long run macroeconomic problem does have short run causality with some of FI. Granger causality is also confirmed on some of FI and poverty. Policy recommendation is the appropriate capital allocation for the efficient restoration of the results of FI.

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Keywords
Foreign Inflows; Poverty; Johansen Juselius; Granger Causality.

JEL Classification:
F35, P45, F24, B22

1. Introduction
Pakistan is amongst the South Asian countries is victimized of capital scarcity. It is one of the central explanations for her reliance onto FI for the finance of ongoing projects and to bridge-up broadened gaps among savings and investment level (Siddiqui & Kemal, 2006) FI have prime standing for less developed countries (Ozturk & Kalyoncu, 2007). Recipient country is expected to achieve macroeconomic goals by such FI. Realizing that FI contribute in positively affecting macroeconomic variables, Pakistan energetically relies upon such. To Obadan (2004), FI can be categorized into foreign aid, worker remittance, foreign debt, and Foreign Direct Investment (FDI). Foreign trade also exhibit to have capacity in tilting chronic issues like of poverty (Yasmin & Khan, 2011).

FDI is the important belonging of FI (Khan, 2007; Mehmood & Hassan, 2015). FDI in Pakistan, during July-April of fiscal year 2016, remained at $1016.3 million as against $963.8 million last year. However, depressed FDI inflows are backed at; crises within the global euro- zone(s) and relating financial crisis. At country level, it is because of stumpy investment in financial businesses, such as; telecommunication and power sector. Reasons of fall, at internal level, are backed at circular debt and energy crisis.

Complementarily, to the World Bank (2016), flow of overall remittance to developing economies has increased to
$431.6 billion in 2015 i.e. 0.4 percent growth since 2014. The remittance of such flows to Pakistan by fiscal year 2016 has swelled by five percent. During July-April of fiscal year 2016, worker remittance remained at $16.03 billion compared to $15.24 billion last year.

Further, in the line of trade, overall exports during July-April of fiscal year 2016 are witnessed at $18.2 billion. Mainly 47.2 percent of exports are focused towards 5 countries like, UK, USA, Germany, UAE, and Hong Kong. On dissimilar note, by July-April 2016, imports are reached at $43.2 billion.

Foreign debt and their excessive reliance is bound to retard economic growth. By March 2012, public debt has stood at 58.2 percent as compared to 55.5 percent. External debt(s) has reached to $69.6 billion. On the contrary, share of foreign aid is minor in overall debt that is $5441 million till by fiscal year 2016 i.e. composite of project, non-project aid component and other relief(s).

This study is focused upon exploring the relationship between FI and poverty in Pakistan because according to economic survey 2016, 29.4 percent of population is a victim of living below the poverty line whereas in recent years, Pakistan received billions of FI which should not leave any reason for lack of capital however, the query still persists that “How and when poverty, hunger, famine, and mal nutrition would be overcome”10. Therefore, short run and long run relationship among poverty and FI and nevertheless causality tie-ups between FI and poverty are of specific objectives of our study. Next to the introduction of the study in Section 1, the Section 2 describes the empirical evidence(s) on components of FI. Data source, model specification, methodological issues are discussed in Section 3. The Section 4 infers the outcomes of study. The concluding remarks are offered in the last section.

2. Literature Review
Foreign aid is considered for operative assistance towards that of the development (Burnside & Dollar, 2000). Chenery and Strout (1965) emphasize that range of investment is indispensable to achieve certain growth rate and the existing amount of saving (domestic) to attain the preferred investment level.11 This investment is dispensed for addressing poverty issues. There exist linkages between foreign aid on poverty relief(s). Dynamic spillovers of investment capital significantly increase household income and thereby engender income of individuals (Carvalho & White, 1996). However, if foreign aid is utilized improperly, the consequences turn to be negative (Kraay & Raddatz, 2005; Masud & Yontcheva, 2005). Remittance is the source of coping with financial needs. To Goff (2010) worker remittances possess significant and positive effect upon macroeconomic stability, poverty, and trade balances. Remittances do act in shrinking of poverty, income volatility, and inequality (Rapoport & Docquier, 2005).

The considerations got from Harrod-Domar Model clarify that around 18 to 20 percent saving rate is needful to maintain rate of economic growth of 6 percent. In this context, on the reasons that how foreign debt is valuable is due to the powerful exposure for the gap bridge-ups within saving and investment and to achieve macroeconomic targets. The Solow-Swan’s Two-Gap Model ascertains that filling up of gaps between imports and exports and savings and investment can be realized since rely upon foreign debt component of FI (Mohey-ud-din, 2005).

FDI is dynamic but volatile form of FI (Mehmood & Hassan, 2015). FDI enhances economic growth of heir (Khan, 2007; Hassan, 2003; Chowdhury & Mavrotas, 2006; Romer, 1993). It is not irrelevant to believe that FDI-caused economic growth benefits in condensing poverty.12 However, few researches are conducted in this area like; White (1992), Bengoa and Robels (2003), and Carvalho and White (1996).

Better state of domestic financial markets not only attracts foreign companies towards invest rather does exert altruist effect upon economic conditions (Khan, 2007). To Khan and Khan (2011), FI are needed (with consistency) to fix saving-investment, exports and imports, and revenues and expenditures gaps. The miracles of FI never end up here rather provoking advancement in technology, raising employment level, and addressing other macroeconomic issues in the host country are the fallouts of such FI (Kobrin, 2004; Le & Ataullah, 2006).

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10 The literature is extracted from the website: bbc.co.uk 02:07 GMT, Saturday 3 July 2010.
11 For further suggestion and guidance, read Todaro and Smith (2004).
12 For further reference, read Borensztein et al. (1995); Bengoa and Robels (2003); De Mello (1999); Durham. (2004) and Li Liu (2005).
Among FI, foreign trade adds to aggregate welfare of participating countries (Harrison, Rutherford, & Tarr, 2002) but countries need to gain specialty in the line of products (Hecksher-Ohlin, 1933) and devote their resources towards the production of advantageous products (Richardo, 1817). If trade is liberalized leads to create jobs and helps in poverty alleviation (Yasmin & Khan, 2011). Hecksher-Ohlin’s trade theory of Factor Endowment of (1933) is proficient to offer rejoinders to fundamental questions that are connected to the theory of trade i.e. it makes capital obtainable for complementing policies for alleviating socioeconomic issues - one of those is poverty. Hence, it increases welfare of participating nations (Todaro & Smith, 2004).

3. Data Source and Methodology

This section accommodates for data source, construction of model, and methodological issues.

3.1 Data Source

The study bases upon secondary data for the period from 1972 to 2017. Major sources of data are; Pakistan Economic Survey (various issues), World Bank (World Economic Outlook), and Hand Book of Statistics on Pakistan Economy (2005).

3.2 Model Specification

Based on the study objective, the focus is to find out impact of FI on poverty. Thus, the established model is given in Equation (1):

\[ POV_t = \alpha_0 + \alpha_1 FAID_t + \alpha_2 FDI_t + \alpha_3 WRM_t + \alpha_4 FDBT_t + \alpha_5 FTR_t + \alpha_6 HEX_t + \alpha_7 LEX_t + \alpha_8 LIT_t + \alpha_9 CPI_t + \mu_t \]  

(1)

whereas \( \alpha_0 \) is model’s intercept and \( \alpha_i \) are the respective coefficients of regressors at time \( t \), \( i \) range from 1 to 9. Error term is represented as \( \mu_i \). Additionally, Table 1 gives off the descriptions of prefix at each variable and measurement.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty (Pov)</td>
<td>Poverty on Head Count Ratio</td>
</tr>
<tr>
<td>Foreign Aid (FAID)</td>
<td>In PKR Million.</td>
</tr>
<tr>
<td>Foreign Direct Investment (FDI)</td>
<td>In Percentage of GDP.</td>
</tr>
<tr>
<td>Worker Remittance (WRM)</td>
<td>In PKR Million.</td>
</tr>
<tr>
<td>Foreign Debt (FDBT)</td>
<td>In Percentage of GNI.</td>
</tr>
<tr>
<td>Foreign Trade (FTR)</td>
<td>Trade openness ((100 (Export X Imports /GDP)).)</td>
</tr>
<tr>
<td>Health Expenditure (HEX)</td>
<td>In PKR Million.</td>
</tr>
<tr>
<td>Life Expectancy (LEX)</td>
<td>In percentage.</td>
</tr>
<tr>
<td>Literacy Rate (LIT)</td>
<td>In percentage.</td>
</tr>
<tr>
<td>Inflation (CPI)</td>
<td>Consumer Price Index.</td>
</tr>
</tbody>
</table>

3.3 Test of Unit root

In the line of investigating cointegration, status of stationarity is considered mandatory (Dickey & Fuller, 1979). The Augmented Dickey Fuller (ADF) test, as developed by Dickey and Fuller (1979), qualifies for such explorations. The procedure of testing stationarity under ADF is given in Equation (2):

\[ y_t = \rho y_{t-1} + \mu_t, t = 1,2, \ldots, \]  

(2)

wherein, \( Y_0 = 0 \) and \( \rho \) is the real number. \( \mu_t \) is the sequence of normal and independent random variables with mean of zero and constant variance \( \sigma^2 \). If \( |\rho| < 1 \), time series \( Yt \) is stationary and vice versa if \( |\rho| > 1 \). ADF recommends of adding extra lags to avoid issue of auto correlation. Therefore, three possible computational forms i.e. no constant and no trend, constant with no trend and constant with trend can be expressed as Equation (3-5):

\[ \Delta y_t = \rho \Delta y_{t-1} + \mu_t; \]  

(3)
\[\Delta y_t = \alpha + Y_{y,t-1} + \sum_{s=1}^{m} \rho \Delta y_{t-s} + \mu_t, \quad \text{(4)}\]
\[\Delta y_t = \alpha + Y_{y,t-1} + \sum_{s=1}^{m} \rho \Delta y_{t-s} + \mu_t; \quad \text{(5)}\]

### 3.4 Cointegration Test

If all the series are integrated of order 1, Equation [1] is to be examined by Johansen Juselius (1990) cointegration test. The evidence of cointegration in vector ‘r’ is observed by Eigen value and Maximum likelihood ratio. The proposed methodology for multivariate cointegration can be defined in Equation (6) where X_t is the vector of P = 10 elements.

\[\Delta X_t = (\text{POV, FAID, FDI, WRM, FDBT, FTR, HEX, LEX, LIT, CPI}). \quad \text{(6)}\]

The procedure of Johansen and Juselius (1990) for checking cointegration vectors among poverty and FI bases on maximum likelihood estimation of Error Correction Model, (ECM) and is given in Equation (7):

\[\Delta X_t = \Gamma_1 \Delta X_{t-1} + \cdots + \Gamma_{k-1} \Delta X_{t-k+1} + \Pi X_{t-k} + \mu + \Phi D_t + \varepsilon_t\]

where \(\Delta X_t\) denotes vector of endogenous variables, introducing notion that \(Z_{0t} = \Delta X_t\). \(Z_{1t}\) denote stacked variables i.e. \(\Delta X_{t-1}, \ldots, \Delta X_{t-k+1}, D_t\), 1, and \(Z_{kl} = X_{t-k} \cdot \Pi X_{t-k}\) depicts long run relationship. \(\Gamma\) is a matrix of parameters which correspond to \(Z_{1t}\) that consists matrix of \(\Gamma_1, \ldots, \Gamma_{k-1}, \Phi\) and \(\mu\). The Equation (7) can be transformed into Equation (8):

\[Z_{0t} = \Gamma Z_{1t} + \Pi Z_{kr} + \varepsilon_t\]

For estimating maximum likelihood, where \(X_t\) is the vector of \(P = 10\) element, regression of \(Z_{0t} \_ \_ \Pi Z_{kt}\) upon \(Z_{1t}\) is written in Equation (9):

\[\sum_{i=1}^{T} Z_{0t} Z_i' = \Gamma \sum_{i=1}^{T} Z_{1t} Z_i' + \Pi \sum_{j=1}^{T} Z_{kr} Z_i' \]

The concentrated version of likelihood is shown in Equation (10):

\[\left|A\right|^{-T/2} \exp \left\{ - \sum_{i=1}^{T} (R_{0t} - \Pi R_{kt})' \Lambda^{-1} (R_{0t} - R_{kt}) / 2 \right\} \]

The cointegration relationship within \(Z_t\) variables is explained by rank of \(\Pi\) matrix where \(\Pi\) is decomposed into two matrices of \(n \times r\) and \(\Pi\) \((0 < r < p)\). The H0 of no cointegration is thereby rejected, if estimated value \(\gamma_i\) in Equation (11) is greater than the critical value and is significant at 5 percent.

\[\gamma_i \left\{ = -m \sum_{j=k+1}^{p} (1 - \hat{\eta}_j) \right\} \]

Thus, given the estimates of Eigen value i.e. \(\hat{\eta}_j\) weights, \(\Psi_j\) and the Eigen vector \(\xi_j\), evidence of long run cointegration are found provided estimated value on \(\hat{\eta}_j\) exceeds the corresponding critical value and is significant.
3.5 Error Correction Model
Having established cointegration among variables and the long run coefficients estimates, ECM is specified in Equation (12).

\[
\Delta POV = \alpha + \beta ECT_{t-1} + \sum_{i=1}^{p} \delta_{POV} \Delta POV_{t-i} + \sum_{i=1}^{p} \delta_{FAID} \Delta FAID_{t-i} + \sum_{i=1}^{p} \delta_{FDI} \Delta FDI_{t-i} + \sum_{i=1}^{p} \delta_{WBM} \Delta WBM_{t-i} + \\
\sum_{i=1}^{p} \delta_{FDBT} \Delta FDBT_{t-i} + \sum_{i=1}^{p} \delta_{FTR} \Delta FTR_{t-i} + \sum_{i=1}^{p} \delta_{HEX} \Delta HEX_{t-i} + \sum_{i=1}^{p} \delta_{LEX} \Delta LEX_{t-i} + \\
\sum_{i=1}^{p} \delta_{LIT} \Delta LIT_{t-i} + \sum_{i=1}^{p} \delta_{CPI} \Delta CPI_{t-i} + \mu_t
\]

(12)

where $\beta$ is ECT’s coefficient, $\alpha$ is the intercept and $\delta_i$ the short run coefficient(s). $\mu_t$ is the error term. Additionally, to have no repentant of lacking in multi angle view of FI and POV, short run causality is also found.

3.6 Granger Causality
After exploring cointegration and the estimation(s) of long run and short run coefficient, Granger (1969) causality analyses is run. It is none other than to explore the deterministic ability of one variable over another, especially POV and FI.

\[
y_t = \alpha_1 + \sum_{i=1}^{n} \beta_i y_{t-1} + \sum_{i=1}^{n} \alpha_i y_{t-1} + \varepsilon_{1t}
\]

(13)

\[
x_t = \alpha_2 + \sum_{i=1}^{n} \beta_i x_{t-1} + \sum_{i=1}^{n} \alpha_i y_{t-1} + \varepsilon_{2t}
\]

(14)

Where $\varepsilon_{1t}$ & $\varepsilon_{2t}$ are uncorrelated error terms. If lag term Y is statistically non zero, X is caused by Y and vice versa. If both lag terms are indicated as non zero, this indicates bidirectional causality and elsewhere.

4. Interpretations of the Results
The study initiates to identify poverty and FI associations in Pakistan. In this respect, the empirics are discussed below.

4.1 Stationarity Test
To run Johansen Juselius (1990) cointegration analysis, the pre-assumption of I(1) is viewed by ADF test. Results given in Table 2 confirm that entire variables are turned stationary at first difference. Thus, integrated of I(1) i.e. order (1).

Table 2: Results of Unit Root

<table>
<thead>
<tr>
<th>Variables</th>
<th>Constant and Intercept</th>
<th>First Difference Intercept</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5% level</td>
<td>t-Statistics</td>
</tr>
<tr>
<td>POV</td>
<td>-2.94</td>
<td>-3.08</td>
</tr>
<tr>
<td>FAID</td>
<td>-2.94</td>
<td>-2.03</td>
</tr>
<tr>
<td>FDI</td>
<td>-2.96</td>
<td>2.01</td>
</tr>
<tr>
<td>WRM</td>
<td>-2.94</td>
<td>2.74</td>
</tr>
<tr>
<td>FDBT</td>
<td>-2.94</td>
<td>-0.23</td>
</tr>
<tr>
<td>FTR</td>
<td>-2.94</td>
<td>-2.49</td>
</tr>
<tr>
<td>HEX</td>
<td>-2.94</td>
<td>3.87</td>
</tr>
<tr>
<td>LEX</td>
<td>-2.94</td>
<td>-2.24</td>
</tr>
<tr>
<td>LIT</td>
<td>-2.94</td>
<td>1.42</td>
</tr>
<tr>
<td>CPI</td>
<td>-2.94</td>
<td>-3.08</td>
</tr>
</tbody>
</table>
4.2 Unrestricted Cointegration Rank Test
Summarizing the facts in Table 3 and Table 4, on maximum Eigen value statistics criteria, two cointegration equations are confirmed.

Table 3: Unrestricted Cointegration Rank Test (Maximum Eigen value)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen value</th>
<th>Max-Eigen Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.96</td>
<td>121.25</td>
<td>64.50</td>
<td>0.00</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.82</td>
<td>64.63</td>
<td>58.43</td>
<td>0.01</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.73</td>
<td>49.56</td>
<td>52.36</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Table 3: (Continued)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen value</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>At most 3</td>
<td>0.70</td>
<td>45.55</td>
<td>46.23</td>
<td>0.05</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.60</td>
<td>34.82</td>
<td>40.07</td>
<td>0.17</td>
</tr>
<tr>
<td>At most 5</td>
<td>0.50</td>
<td>26.00</td>
<td>33.87</td>
<td>0.32</td>
</tr>
<tr>
<td>At most 6</td>
<td>0.39</td>
<td>18.77</td>
<td>27.58</td>
<td>0.43</td>
</tr>
<tr>
<td>At most 7</td>
<td>0.32</td>
<td>14.27</td>
<td>21.13</td>
<td>0.34</td>
</tr>
<tr>
<td>At most 8</td>
<td>0.22</td>
<td>9.23</td>
<td>14.26</td>
<td>0.26</td>
</tr>
<tr>
<td>At most 9</td>
<td>0.03</td>
<td>1.3</td>
<td>3.84</td>
<td>0.23</td>
</tr>
</tbody>
</table>

Table 4: Unrestricted Cointegration Rank Test (Trace Statistics)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen value</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.96</td>
<td>385.52</td>
<td>239.24</td>
<td>0.00</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.83</td>
<td>264.27</td>
<td>197.37</td>
<td>0.00</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.74</td>
<td>199.63</td>
<td>159.53</td>
<td>0.00</td>
</tr>
<tr>
<td>At most 3 *</td>
<td>0.71</td>
<td>150.06</td>
<td>125.62</td>
<td>0.00</td>
</tr>
<tr>
<td>At most 4 *</td>
<td>0.61</td>
<td>104.50</td>
<td>95.75</td>
<td>0.01</td>
</tr>
<tr>
<td>At most 5</td>
<td>0.50</td>
<td>69.68</td>
<td>69.82</td>
<td>0.05</td>
</tr>
<tr>
<td>At most 6</td>
<td>0.40</td>
<td>43.67</td>
<td>47.86</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Table 4: (Continued)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen value</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>At most 7</td>
<td>0.32</td>
<td>24.89</td>
<td>29.80</td>
<td>0.17</td>
</tr>
<tr>
<td>At most 8</td>
<td>0.22</td>
<td>10.62</td>
<td>15.49</td>
<td>0.24</td>
</tr>
<tr>
<td>At most 9</td>
<td>0.04</td>
<td>1.39</td>
<td>3.84</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Note: * denotes rejection of the hypothesis. ** are MacKinnon-Haug-Michelis (1999) p-values.

On account of Trace statistics criteria, five cointegration equations are confirmed i.e. the H0 of no cointegration is rejected at ‘None to at most 4’ cointegration equations. Therefore, long run association is confirmed among the endogenous variables constructed in Equation (1).

4.3 Long Run Results
For the determination of magnitude and signs of long run coefficients, results are represented in Table 5 that show that coefficient of entire variables are held significant.

The results show very minute positive POV effects of FAID. It is not surprising since on contrary end, Pakistan is confronting with negative externalities such as political unrest, ineffective management, and corruption that dampens the positive fallouts of such FI. FAID, according to Burnside and Dollar (2000), is not useless in all respects of macroeconomic needs and effective development assistance since fulfills needs for capital to minimize gaps between saving and investment (Chenery & Strout, 1965). FAID stalwartly affects money holding by
household which is later spent to buy all components of required goods and services (Carvalho & White, 1996). What can effect the efficacy of positive sequels of FAID is nonetheless its improper utilization.

Long run findings acknowledge negative impact of FDI on poverty. An increase of 1 unit of FDI lessens POV by 71.07 units. FDI is, for instance, a major component of foreign capital to enable meeting needs for credit required in bringing up devastating poverty and its dimension(s).

Table 5: Long Run Results at 1 Co-integrating Equation(s)

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAID</td>
<td>0.04</td>
<td>0.01</td>
<td>4.00*</td>
</tr>
<tr>
<td>FDI</td>
<td>-71.07</td>
<td>3.74</td>
<td>-19.00*</td>
</tr>
<tr>
<td>WRM</td>
<td>-0.01</td>
<td>0.00</td>
<td>-4.10*</td>
</tr>
<tr>
<td>FDBT</td>
<td>-75368.20</td>
<td>8746.24</td>
<td>-8.62*</td>
</tr>
<tr>
<td>FTR</td>
<td>-211.43</td>
<td>49.86</td>
<td>-4.24*</td>
</tr>
<tr>
<td>HEX</td>
<td>0.00</td>
<td>0.00</td>
<td>-7.14*</td>
</tr>
<tr>
<td>LEX</td>
<td>-2.69</td>
<td>0.79</td>
<td>-3.41*</td>
</tr>
<tr>
<td>LIT</td>
<td>6.25</td>
<td>0.91</td>
<td>6.89*</td>
</tr>
<tr>
<td>CPI</td>
<td>1.27</td>
<td>0.27</td>
<td>4.70*</td>
</tr>
</tbody>
</table>

Note: * indicates significant at five percent.

Moreover, study reveals of 1 unit increase in WRM to lower POV by 0.01 units. WRM appears to increase the money circulation in an economy therefore engages economic activity. When capital is invested, it bifurcates into various sectors of economy to raise up economic activity and to create jobs, thus depress poverty pressures. Long run coefficient of FDBT signifies that 1 unit increase of FDBT reduces POV by 75368.2 units. FDBT is needed to catch the delicate needs of capital. Harrod-Domor envisages that FDBT is desired for nurturing future investment and to sponsor present needs in case of on-going projects completions. FDBT bears numerous impacts on macroeconomic indicators of its heir __ one of those is poverty reduction.

If FTR is exerted progressively, increases job opportunities and helps in reducing POV. Course of development of the nation is accelerated via trade openness (David & Kraay, 2004). Same postures appear in this study which show that 1 unit increase in FTR dampens poverty by 211.43 units. Wealthy nations are reflected by healthy minds. Governments have to adhere for resolving abrupt health statuses of the population to have population which is free from ailment. Energy requirement is required to be fulfilled to set-off an envy of poverty and moreover to disclose unexplored opportunities. The results, however, acknowledge nonlinear association of HEX and POV.

A rational individual always saves while expecting for long life. Unsurprisingly, to be benefited in old age, people intend to spend less portion of their income. The findings also slither in the similar direction i.e. 1 unit increase in LEX waysides POV by 2.69 units. Pakistan falls with the slab of countries which possess texture of inappreciable level of LIT. Educated individuals unless secure highly paid employment take refuge at home and be continuous burden on head of the family. This state leads poverty, at family head, toward the inclement. The long run analysis suggests positive relationship within poverty and literacy rate. At present, 1 unit rise in LIT increases POV by 6.25 units. As cost of living next to the inflationary pressures unable the nation to defy against such challenges. Persistent increase at price level of the country does break up moral strength of the nation __ particularly poor. The findings intricate an increase of 1.27 units in poverty __ backed at 1 unit rise in CPI.

4.4 Results of Error Correction Model

Short run results are given in Table 6. The coefficient of ECT is negative and lies within the specific range. Thus, show convergence towards the equilibrium in long run, nevertheless inconsequential.

On account of short run causality, the Wald test is conducted where short run causality is found on FAID and WRM. It is concluded that in view of FI, POV is focused for limited short run but no long run causality. Moreover, the diagnostic results also show normal distribution of residuals with no evidence of serial correlation and heteroskedasticity.
Table 6: Results of Error Correction model for Short Run Dynamics

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Coefficient</th>
<th>t-statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECT</td>
<td>-0.01</td>
<td>-0.22</td>
<td>0.82</td>
</tr>
<tr>
<td>D(POV(-1))</td>
<td>0.56</td>
<td>3.62</td>
<td>0.00</td>
</tr>
<tr>
<td>D(FAID(-1))</td>
<td>0.00</td>
<td>1.97</td>
<td>0.06</td>
</tr>
<tr>
<td>D(FDI(-1))</td>
<td>-0.18</td>
<td>-0.18</td>
<td>0.85</td>
</tr>
<tr>
<td>D(WRM(-1))</td>
<td>0.00</td>
<td>-1.82</td>
<td>0.08</td>
</tr>
<tr>
<td>D(FDBT(-1))</td>
<td>-1247.04</td>
<td>-0.60</td>
<td>0.55</td>
</tr>
<tr>
<td>D(FTR(-1))</td>
<td>-3.01</td>
<td>-0.34</td>
<td>0.73</td>
</tr>
<tr>
<td>D(HEX(-1))</td>
<td>0.00</td>
<td>2.47</td>
<td>0.02</td>
</tr>
<tr>
<td>D(LEX(-1))</td>
<td>0.00</td>
<td>0.02</td>
<td>0.98</td>
</tr>
<tr>
<td>D(LIT(-1))</td>
<td>-0.42</td>
<td>-1.01</td>
<td>0.32</td>
</tr>
<tr>
<td>D(CPI(-1))</td>
<td>-0.01</td>
<td>-0.27</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Note: R squared 0.58; Adjusted R squared 0.40 F-statistic 3.18 (0.00); Durbin-Watson statistic 2.12; Wald Test F-statistic for Short Run Causality of FAID and WRM is 3.82 (0.06) & 3.31 (0.08). Jarque-Bera F-statistic 1.26 (0.53); LM Test F-statistic 0.47 (0.62); Test of Heteroskedasticity F-Statistic 0.49 (0.93).

4.5 Results of Granger Causality

The Table 7 illuminated results of Granger causality. Bidirectional causality is evident among POV and FAID. Moving forward, it is evident that FDI and POV do not Granger cause one another but unidirectional causality is found among WRM and POV whereas, FDBT and POV does not show causality in either case. In opposite, FTR and POV show bidirectional causality. However, HEX and LEX have no such show of causality with POV, akin to LIT and CPI.

Table 7: Granger Causality Test Result(s)

<table>
<thead>
<tr>
<th>H0: No Granger Causality from;</th>
<th>F-statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAID to POV</td>
<td>18.86</td>
<td>0.00</td>
</tr>
<tr>
<td>POV to FAID</td>
<td>3.12</td>
<td>0.08</td>
</tr>
<tr>
<td>FDI to POV</td>
<td>0.83</td>
<td>0.36</td>
</tr>
<tr>
<td>POV to FDI</td>
<td>1.27</td>
<td>0.26</td>
</tr>
<tr>
<td>WRM to POV</td>
<td>0.44</td>
<td>0.50</td>
</tr>
<tr>
<td>POV to WRM</td>
<td>3.26</td>
<td>0.07</td>
</tr>
<tr>
<td>FDBT to POV</td>
<td>0.14</td>
<td>0.70</td>
</tr>
<tr>
<td>POV to FDBT</td>
<td>0.04</td>
<td>0.83</td>
</tr>
<tr>
<td>FTR to POV</td>
<td>5.18</td>
<td>0.02</td>
</tr>
<tr>
<td>POV to FTR</td>
<td>7.94</td>
<td>0.00</td>
</tr>
<tr>
<td>HEX to POV</td>
<td>0.03</td>
<td>0.86</td>
</tr>
<tr>
<td>POV to HEX</td>
<td>0.53</td>
<td>0.46</td>
</tr>
<tr>
<td>LEX to POV</td>
<td>0.32</td>
<td>0.57</td>
</tr>
<tr>
<td>POV to LEX</td>
<td>0.03</td>
<td>0.84</td>
</tr>
<tr>
<td>LIT to POV</td>
<td>0.17</td>
<td>0.67</td>
</tr>
<tr>
<td>POV to LIT</td>
<td>0.28</td>
<td>0.59</td>
</tr>
<tr>
<td>CPI to POV</td>
<td>1.24</td>
<td>0.27</td>
</tr>
<tr>
<td>POV to CPI</td>
<td>1.02</td>
<td>0.31</td>
</tr>
</tbody>
</table>

Note: * shows significant at 1 percent.

5. Conclusion and Recommendation of Policy

In this study we have established that FI are of profound significance being source to fulfill capital needs, especially on poverty. The study came along with findings that FDI, FDBT, and WRM, are contributing to reduce poverty. However, FAID portrayed positive but negligible impact at poverty. At conclusion, it is recommended to the state office to define such policy options that could transform entire forms of FI to have negative relationship with
poverty, particularly in case of FAID. Nonetheless to get it done, peaceful border situations, better situations of law and order, political stability, intra and intra province harmony, eradication of massive corruption, and transparent policies are obligatory for solidifying the paybacks of FI towards the poverty.

References


**What Determines Bilateral Trade Flows? Evidence from ECO Region**

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<table>
<thead>
<tr>
<th>ARTICLE DETAILS</th>
<th>ABSTRACT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History</strong></td>
<td>This study provides an analysis of Pakistan’s bilateral trade in Economic Corporation Organization (ECO) region. The main purpose of this study is to assess the determinants of bilateral trade flows using the gravity trade model. Panel least square regression has been applied over the period of 1995 to 2015. Two types of gravity models have been estimated: traditional gravity trade model and modified gravity trade model. The study has identified income, population, distance, adjacency, area, landlockedness, continent and terrorism as the main drivers of Pakistan’s bilateral trade flows with ECO countries. It is suggested that policies in Pakistan should focus on improving economic growth; offer incentives to Pakistani people to engage more in trade flows; improve transportation to trade with ECO countries; and take measures to eradicate terrorism.</td>
</tr>
</tbody>
</table>

**Keywords**
Gravity Model, Trade, ECO Region, Panel Data

**JEL Classification:**
F12, C23

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**1. Introduction**

The notion of international trade has gained copious importance in international economics literature because of the mutual interdependence of economies. Over the years, international trade has provided gains to the nations including sustainable economic development, foreign exchange earnings, employment opportunities via private and public sector development, broadening the production and fiscal base, and uplifting the status of the poor across the globe although many people are still below the poverty line and facing income inequalities (Krueger, 1900; Bhagwati & Srinivasan, 2002; Vijayasri, 2013). Thus international trade is at a crossroads in the changing geopolitical scenario because new challenges and opportunities are emerging which are fortifying thinkers to craft
policies in line with the new business models and societal outlooks.

In the modern world, it would be difficult to find any closed economy as mutuality among the countries has compelled them to remain open economies although of different degrees. Self-sufficiency may be a target for the economies but it would be a difficult task to be achieved under the circumstances. The concepts of multilateralism and regionalism have widespread in the past few decades. Regional trading blocs through regional integration agreements turn out to be alpha and omega of the global trading system. Many countries apart from the any stage of economic development are ensuing regional integration agreements (Kahouli & Maktouf, 2013). The preferential trading blocks in their structure differ to the great extent but they have a common objective of encouraging the trade through minimizing the trade restrictions within the countries. Many regional agreements prioritize to implement the policies regarding tariff and non-tariff restrictions in intra-regional trade (Baldwin, 1979).

One of many regional associations around the globe is Economic Corporation Organization (ECO). ECO comprises of ten member countries including Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkey, Turkmenistan and Uzbekistan. The trade patterns in ECO are fairly different from the other regional associations. It maintains weak intra-regional trade connections being the least integrated organization in the World. Bilateral trade flows have remained at low levels but intra-regional trade potential exists in the ECO countries. A study by PIDE (2011) suggests that with the implementation of potential free trade area (FTA) agreement, the volume of trade would be fast-tracked by a factor of eight in these countries.

Nature has blessed gigantic natural resources to the ECO countries. It is a diverse region related to the Central, the South and the West Asian Muslim predominated nations connected with Mediterranean Sea and Arabia Sea. As a trade bloc, the central Asian states of ECO are connected with Mediterranean Sea via Turkey, Persian Gulf through Iran and Arabian Sea via Pakistan. ECO by its inception is line up on trade and investment linkages among its members by doing bilateral agreements and negotiation. In ECO Economic Review, 2017, it has been admitted that intra-regional trade and investment of ECO countries have been lower than the ASEAN and NAFTA countries due to the non-execution of ECO Trade Agreement (ECOTA) and weak physical infrastructure linkages among the member nations.

This is also a reality that ECO countries individually are the member of many Regional Trade Agreements (RTAs). Afghanistan is the signatory of South Asian Free Trade Agreement (SAFTA) focusing on goods only. Besides, Afghanistan has Partial Scope Agreement (PSA) with India. In case of Azerbaijan, it is member of GUAM having FTA and EIA agreements regarding goods and services. Azerbaijan has contracted bilateral FTA regarding goods with Russian Federation, Ukraine and Georgia. Moreover, it is also the member of Commonwealth of Independent States (CIS) comprising Azerbaijan, Georgia, Turkmenistan and Uzbekistan which have FTA with respect to goods. Iran being the member of Global System of Trade Preferences among Developing Countries (GSTP) has PSA regarding goods. Kazakhstan has bilateral free trade agreements with Armenia, Georgia, Kyrgyzstan and Ukraine. Additionally, it is also the member of preferential trading blocs of Eurasian Economic Union (EAEU), CIS and Common Economic Zone (CEZ). A custom union exists among the Russian Federation, Belarus and Kazakhstan.

Kyrgyzstan has bilateral FTA with Armenia, Kazakhstan, Moldova, Ukraine and Uzbekistan. It is the member of custom union and has economic integration agreement with Eurasian Economic Union (EAEU) and FTA with CIS. Pakistan has various bilateral FTA, EIA and PSA with China, Malaysia, Mauritius and Sri Lanka. It is also the

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13 The slogan of trade liberalization is followed by many countries after in the end of World War-II. To achieve this objective, General Agreement on Tariffs and Trade (GATT) and its descendant World Trade Organization (WTO) has been established. The number of countries from the journey of GATT to WTO has varied from less than 50 countries from start to 164 countries in 2016. If GATT and WTO force all the member countries to minimize trade restrictions at the same time, this approach is called multilateralism. Alternatively, Regionalism is an alternative approach of trade liberalization to formulate the Preferential Trade Arrangements (PTAs) sometimes based on geographical contiguity.

14 It is indispensable for every member country of the GATT or WTO to notify its involvement in Regional Trade Agreements (RTAs). According to WTO statistics, GATT got 124 notifications of RTAs over the period of 1948-1994 whereas WTO had notified about 455 RTAs while the status of 284 RTAs was in force till January 2018 (WTO Secretariat).

15 Economic Integration Agreement
member of SAFTA. Moreover, Pakistan has PSA of South Asian Preferential Trade Arrangement (SAPTA) Global System of Trade Preferences among Developing Countries (GSTP) and Protocol on Trade Negotiations (PTN). Tajikistan has FTA with CIS along with bilateral FTA with Ukraine. Turkey has a broad strand of bilateral FTA with Malaysia, Moldova, Mauritius, Korea, Jordan, Chile, Serbia, Montenegro, Georgia, Albania, Egypt, Syria, Morocco, Palestinian Authority, Tunisia, Bosnia and Herzegovina, The Former Yugoslav Republic of Macedonia and Israel. Further, Turkey has FTA with European Union and EFTA. A PSA also exists between Turkey and PTN. Turkmenistan has bilateral FTA with Armenia, Georgia, Russian Federation and Ukraine. It is also the signatory of FTA of CIS. Uzbekistan has little bilateral FTA including Kyrgyz, Russian Federation and Ukraine along with the member of FTA of CIS.

The wonders of regionalism have become eminent due to high growth achievements of economic blocks and groups that have spellbound the governments and common people globally. There are many benefits of economic integration that the ECO countries may accrue including efficient resources allocation, access to markets, variety and quality of product, technological development, innovation, returns to scale, trade creation, foreign investment, trade policy reforms, healthy competition, regional security and reduction the risk of conflict etc. Moreover, ECO region is a strong case for endorsing regionalism for economic cooperation and growth due to geographical proximity, same cultural and social values and religion. Nevertheless, some researchers consider these blocks discriminatory and ask the question about its future. Some observers are of the view that regionalism would be the elementary unit of global liberalization in upcoming days (PIDE, 2011).

Based on these reasons, it is imperative to probe the determinants of trade of ECO countries focusing more on the role of terrorism, geographical location and distances. These countries are following the bilateral cooperation and negotiation between each other. This study uses the gravity trade model to investigate the bilateral trends and patterns of trade of ECO countries. In fact, when we are studying the factors determining trade in any region, the main question arises is why the regionalism exists in any region and is there some other factors also present other than geographic location to affect the trade flows between the member countries. These types of studies are important to devise trade policies and reviewing the international linkages. The standard framework to examine the bilateral trade flows is gravity model and various studies have used this approach to study the trade flows. The literature review has suggested that many studies have investigated only the trade pattern of developed countries. To the best of our knowledge, there is no study on ECO bilateral trade flows in the existing literature except one. Therefore, we are intending to explore this area of interest further.

This study is based on the analysis to explore the factors that determine the patterns of bilateral trade flows between the ECO countries. The analysis concentrates the importance of terrorism in determining trading flows. To encapsulate the geographical and cultural proximity effects, a set of dummy variables are also included in the gravity model. The rest of the study is structured as follows: Section 2 provides the theoretical underpinning of gravity model while section 3 surveys the empirical studies on the determinants of trade. Section 4 explains the model specification and section 5 discusses the data and methodology. Section 6 contains an empirical study of the gravity trade model starting by traditional gravity model with modified gravity model. Finally, Section 7 concludes the study along with policy implications.

2. Gravity Model: Theoretical Underpinning

Many social sciences including economics often use the laws of natural sciences due to their solid scientific intuition and robust results in the empirical studies. The gravity model has also been borrowed from physics. In 1687, Isaac Newton gave the law of Universal Gravitation that is stated as:

“two bodies or objects are subjected to an attraction force, depending positively on the product of their masses and negatively on the square of their distance”

In equation form, it can be written as:

---

Examples include epidemic theory in mathematics, prey-predator model in growth cycles, management strategy etc.
Where:
\[ f_{ij} = g \frac{m_i m_j}{d_{ij}^2} \]

(1)

The studies by Tinbergen (1962) and Poyhonen (1963) are the seminal and pioneer studies that have used the Newton’s law of Universal Gravitation to explain the foreign trade flows between the two nations. After that, the gravity model has been utilized to interpret many economic situations and behaviors such as remittances, migration, bilateral investment and trade flows, buyers’ flow to shopping centers, flow of patients to hospitals, commuting and recreational traffic.

Following gravity equation has been used by Tinbergen (1962) and Poyhonen (1963) to predict the value of trade:

\[ T_{ij} = g \frac{y_i y_j}{d_{ij}} \]

(2)

To be precise, other things being equal, the value of trade between any two countries is proportional to the product of the two countries’ GDPs and diminishes with the geographic distance between the two countries. Tinbergen (1962) and Poyhonen (1963) infer that all the above variables between trading partners are found statistically significant with expected signs.

The gravity model or equation observes the factors that may affect the magnitude or level of bilateral trade in any region. It is a simple model with high statistical power. Some researchers are of the view that in this model there is no strenuous derivation involved based on economic theory. Linnemann (1966) applied the gravity equation in Walrasian general equilibrium model. The study assumes that every country has its own demand and supply function for all commodities. The variable of aggregate income exhibits the demand side in an importing country while it shows supply side in an exporting country. The element of transport costs is captured by the variable of distance which determines a wedge between demand and supply. Linnemann (1966) pointed out that bilateral trade flows between the two countries are based on three main factors:

i. **Potential supply conditions at the origin (exporting country)**

ii. **Potential demand conditions at the destination (importing country)**

iii. **Restraining or stimulating forces between the two countries relating to the specific flows**

Regarding potential foreign supply, Linnemann identified two factors i.e. its own national income and the ratio between production for domestic market (PDM) to production for domestic market (PFM). The production ratio (PDM/PFM) is determined by population size of that country. Linnemann elucidated that potential foreign supply and potential foreign demand are counterpart of each other and therefore determined by the same forces of national income, population and per-capita income. Moreover, trade restraining factors are grouped in two categories, namely, Natural Trade Resistance (NTR) and Artificial Trade Resistance (ATR).

To conclude, Linnemann assembled three factors, namely, potential demand and supply factors (national income, population size and per-capita income) and the trade resistance factors (geographical distance and preferential trade) into one equation to explicate the bilateral trade flow.
\[ T_{ij} = \lambda \left( S_i^p \right)^\alpha \left( D_j^p \right)^\beta \left( R_{ij} \right)^\gamma \]  

(3)

Where:

- \( T_{ij} \) = Value of trade between country i and country j
- \( S_p \) = Potential supply
- \( D_p \) = Potential demand
- \( R \) = Trade resistance.

The value of trade between country i and country j (\( T_{ij} \)) would depend on potential supply (\( S_p \)), potential demand (\( D_p \)) and trade resistance (\( R \)).

Potential supply is:

\[ S_p = \phi_0 NI^{\alpha_1} POP^{\alpha_2} PCI^{\alpha_3}. \]  

(4)

Since \( PCI = NI/POP \), therefore there is no need to introduce per-capita income as an individual variable. So the potential supply equation becomes:

\[ S_p = \phi_0 NI^{\alpha_1} POP^{\alpha_2}. \]  

(5)

In the same way, we can write the potential demand equation as:

\[ D_p = \phi_1 NI^{\alpha_4} POP^{\alpha_5}. \]  

(6)

Linnemann considers the equality between potential supply and potential demand i.e. \( \phi_0 = \phi_1, \alpha_1 = \alpha_4, \alpha_2 = \alpha_5 \). For equilibrium situation, this condition must hold in the long run but disequilibrium may exist in the short run creating the inequality among the components of demand and supply.

After plugging in the trade resistance factor (\( R \)) that can be substituted by two variables: i) Geographic Distance (\( DT \)) and ii) Preferential Trade (\( PT \)), the trade flow gravity equation can be written as:

\[ T_{ij} = \lambda_0 \left( NI_i^{\alpha_1} NI_j^{\alpha_2} PT_{ij}^{\alpha_3} \right) / \left( POP_i^{\alpha_4} POP_j^{\alpha_5} DT_{ij}^{\alpha_6} \right) PT_{ij}^{\alpha_7}. \]  

(7)


In a nutshell, the gravity model formulates three sets of factors decisive to the size of trade flow:

i. **Economic forces at the origin of flow**

ii. **Economic forces at the destination of flow**

iii. **Economic forces either stimulating or resisting the movement of flow from the origin to the destination.**

### 3. Empirical Studies on the Determinants of Trade

This section focuses on the review of the empirical studies which have applied gravity-type models to investigate the determinants of trade. The summary of the assorted studies on the determinants of bilateral trade flows is displayed in Table 1.

**Table 1: Summary of the Studies on the Determinants of Trade**

<table>
<thead>
<tr>
<th>Reference(s)</th>
<th>Countries</th>
<th>Time Period</th>
<th>Model/Methodology</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Description</td>
<td>Year Range</td>
<td>Methodology</td>
<td>Key Explanatory Variables</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>------------</td>
<td>------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Limao and Venables (2000)</td>
<td>103 countries</td>
<td>1990</td>
<td></td>
<td>Poor infrastructure (-) Transportation cost (-)</td>
</tr>
<tr>
<td>Ekanayake (2001)</td>
<td>56 trading partner of Mexico</td>
<td>1996-1998</td>
<td></td>
<td>Average income level (+) Common language and border (+) Trade Orientation (+) Regional integration schemes (+) Trade Imbalance (-) Distance (-) Income inequality (-)</td>
</tr>
<tr>
<td>Raballand (2003)</td>
<td>46 countries out of which 18 were landlocked</td>
<td>1995-1999</td>
<td>Gravity approach</td>
<td>Landlockedness (-) Infrastructure (+)</td>
</tr>
<tr>
<td>Nicolini (2003)</td>
<td>European Countries</td>
<td></td>
<td>Gravity model</td>
<td>Home market effect (+) Low transportation cost (-)</td>
</tr>
<tr>
<td>Lai and Zhu (2004)</td>
<td>34 countries</td>
<td></td>
<td>Maximum likelihood method</td>
<td>Tariff (-) Distance (-) Production Cost (-)</td>
</tr>
<tr>
<td>Groot et al. (2004)</td>
<td>100 countries</td>
<td>1998</td>
<td>Gravity Model</td>
<td>GDP (+) Language (+) Religion (+) Distance (-) Institutional Quality (+)</td>
</tr>
<tr>
<td>Baleix (2005)</td>
<td>EU states</td>
<td>1996</td>
<td>Gravity Model</td>
<td>Tariff (-) Quotas on imports of cloths (+) Distance (-)</td>
</tr>
<tr>
<td>Sugema (2005)</td>
<td>Indonesia</td>
<td>1984-1997</td>
<td></td>
<td>Devaluation (+) No problem of banking system (+) No socio-political disturbances (+)</td>
</tr>
<tr>
<td>Authors</td>
<td>Location</td>
<td>Sample Period</td>
<td>Method</td>
<td>Key Variables</td>
</tr>
<tr>
<td>--------</td>
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</tr>
<tr>
<td>Disdier and Head (2005)</td>
<td>Effects of 1467 distance</td>
<td>1999 and 2000</td>
<td>Meta-regression analysis</td>
<td>Distance (-)</td>
</tr>
<tr>
<td>Cegłowski (2006)</td>
<td>28 countries</td>
<td>2005</td>
<td>Gravity model</td>
<td>Regional trade arrangements (+) Linguistic ties (+)</td>
</tr>
<tr>
<td>Achakzai (2006)</td>
<td>Pakistan and 9 ECO countries</td>
<td>2005</td>
<td>OLS and Gravity model</td>
<td>GDP (+) Per capita income (+) Language (+) Capital (+) Distance (-)</td>
</tr>
<tr>
<td>Ramos (2007)</td>
<td>South Africa (developed) and Ghana (developing)</td>
<td>2000</td>
<td>OLS</td>
<td>Tariff (-) Multilateral liberalization (-) Technological Innovation (+)</td>
</tr>
<tr>
<td>Chen et al. (2008)</td>
<td>34 countries</td>
<td>2004</td>
<td>Extended trade gravity model.</td>
<td>GDP(+) GDP of partner countries(+) SCO(+) Geographic Distance (-)</td>
</tr>
<tr>
<td>Kurmanalieva (2008)</td>
<td>178 countries</td>
<td>1996-2005</td>
<td>Gravity Model</td>
<td>GDP (+) Quality of Infrastructure (+) Open and liberal trade policies (+)</td>
</tr>
<tr>
<td>Karagoz (2009)</td>
<td>11 BSEC economies</td>
<td></td>
<td>Gravity Model</td>
<td>GDP (Income) (+) Distance (-) Population (Importer) (+)</td>
</tr>
<tr>
<td>Wang et al. (2010)</td>
<td>19 OECD countries</td>
<td>1980-1998</td>
<td>Gravity model</td>
<td>Foreign direct Investment (+) Research and Development (+) Distance (-)</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Sample &amp; Period</td>
<td>Methodology</td>
<td>Independent Variables</td>
<td></td>
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</tr>
<tr>
<td>Khan and Hossain (2012)</td>
<td>Bangladesh and its 50 trading partner countries, 1980-2005</td>
<td>Unit Root Analysis</td>
<td>Import-weighted distance (-), Relative GDP (-), Real Exchange Rate (-)</td>
<td></td>
</tr>
<tr>
<td>Naanwaab (2013)</td>
<td>33 African countries, 2000-2009</td>
<td>Gravity model</td>
<td>Economic Freedom (+), Regional Trade Agreements (+), Distance (-)</td>
<td></td>
</tr>
<tr>
<td>Goswani (2013)</td>
<td>South Asian Countries, 1980-2010</td>
<td>Unit Root and OLS tests.</td>
<td>Infrastructure development (+), Financial development (+), Human capital (+), Trade liberalization (+)</td>
<td></td>
</tr>
<tr>
<td>Shikher (2013)</td>
<td>19 OECD Countries, 1989</td>
<td>Trade cost (-), Taste Difference (-), Factor Endowment (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shawa and Shen (2013)</td>
<td>Tanzania, 1980-2012</td>
<td>OLS method</td>
<td>FDI (+), Human capital development (+), Trade liberalization (+), Foreign Income (+), Government expenditures (-), Household Consumption expenditures (-)</td>
<td></td>
</tr>
<tr>
<td>Didier and Hoarau (2014)</td>
<td>SSAC and BRICs, 2000-2010</td>
<td>Gravity Model</td>
<td>GDP (+), Distance (-), Geographical remoteness (-)</td>
<td></td>
</tr>
<tr>
<td>Mahona and</td>
<td>Kenya and</td>
<td>Gravity Model</td>
<td>Distance (-)</td>
<td></td>
</tr>
<tr>
<td>Authors</td>
<td>Region</td>
<td>Period</td>
<td>Methodology</td>
<td>Explanatory Variables</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>and Gravity model</td>
<td>Trade Liberalization (+)</td>
</tr>
<tr>
<td>Nho et al. (2014)</td>
<td>20 EU countries with</td>
<td>2000-2012</td>
<td>Random and fixed estimation</td>
<td>GDP (+)</td>
</tr>
<tr>
<td></td>
<td>Vietnam</td>
<td></td>
<td>and Gravity model</td>
<td>Population (+/-)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Real Effective Exchange rate for exports (+)</td>
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<td></td>
<td></td>
<td>Real Effective Exchange rate for imports (-)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Colonial link (+)</td>
</tr>
<tr>
<td>Pietrzak and</td>
<td>EU(European Union)</td>
<td>1999-2010</td>
<td>Gravity Model</td>
<td>GDP per capita (+)</td>
</tr>
<tr>
<td>Lapinska (2015)</td>
<td>States</td>
<td></td>
<td></td>
<td>Foreign Direct Investment (+)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Distance (-)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Foreign direct investment (+)</td>
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<tr>
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<td></td>
<td></td>
<td>Foreign exchange reserves (+)</td>
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<td></td>
<td>Fiscal balance (-)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Real effective exchange rate (-)</td>
</tr>
<tr>
<td>Azu and Obe</td>
<td>Nigeria and China</td>
<td>1992-2014</td>
<td>Cointegration technique</td>
<td>GDP (+)</td>
</tr>
<tr>
<td>(2016)</td>
<td></td>
<td></td>
<td></td>
<td>Trade Openness (+)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>FDI (+)</td>
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<td>Exchange rate(-)</td>
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<td></td>
<td>Japan’s REER (-)</td>
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<td></td>
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<td></td>
<td>effect Model</td>
<td>Trade Openness (+)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FDI (+)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Exchange rate(-)</td>
</tr>
<tr>
<td>Anderson and</td>
<td>24 European countries</td>
<td>2002-2006</td>
<td>Gravity Model</td>
<td>GDP (+)</td>
</tr>
<tr>
<td>Yotov (2016)</td>
<td></td>
<td></td>
<td></td>
<td>Distance (-)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Common border (+)</td>
</tr>
<tr>
<td>Sheikh et al</td>
<td>ECO Countries</td>
<td>2003-2014</td>
<td>Gravity model Panel Least</td>
<td>GDP(+)</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td>Square</td>
<td>Trade openness (+)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Border (+)</td>
</tr>
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<td>Distance(-)</td>
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<td>Per capita GDP(-)</td>
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<td>Exchange rate(-)</td>
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<td></td>
<td>Inflation rate(-)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Landlocked(-)</td>
</tr>
</tbody>
</table>

Source: Authors’ own compilation

This section has presented the significant empirical studies on the factors that determine bilateral trade flows in various countries. We can observe that the basic gravity model postulated by Tinbergen (1962) and Linnemann (1966) are baseline for almost all the studies as they have established their models by encapsulating gravity models. Some studies have used the same gravity models as suggested by Tinbergen (1962) and Linnemann (1966) but some have modified and/or augmented the model by adding many explanatory variables along with dummy variables related to cultural and geographical factors, such as common languages, colonial-ties, landlockedness, common borders and common membership in trading blocs. Some studies have also probed trade creation and trade diversion effects.

A lot of empirical work has been done to explore the determinants of bilateral trade in various regions of the world but we have found a few studies on bilateral trade flows in ECO region for example Achakzai, 2006 Sheikh et al.,
2018). Thus literature review suggests that there is still a research gap in exploring bilateral trade patterns in ECO economies.

4. Model Specification
Many studies have used gravity model to explore the determinants of bilateral trade flows globally. This model is very simple in its form but it describes the bilateral trade flows between the trading countries well.

It is based on Newton gravitational equation which states that “the attraction between two heavenly bodies is proportional to the product of their masses and inversely linked to the distance between them”. In its basic form, the gravity model assumes that the trade between the two countries is proportional to the product of countries’ income and negatively associated with distance between them. In a modified model, several other variables are added to encapsulate the geographical and cultural factors

To determine the factors affecting the bilateral trade flows between Pakistan and its ECO countries, we have specified two models:

i. **Traditional gravity model (rooted in simple form of gravity equation)**
ii. **Modified gravity model (augmented with dummy variables)**

\[
\text{Model 1: Traditional Gravity Model} \\
\ln X_{ij} = \alpha_0 + \alpha_1 \ln GDP_i + \alpha_2 \ln GDP_j + \alpha_3 \ln POP_i + \alpha_4 \ln POP_j + \alpha_5 \ln DIST_{ij} + \alpha_6 ADJD_{ij} + \varepsilon_{ij}
\]  

\[
\text{Model 2: Modified Gravity Model} \\
\ln X_{ij} = \alpha_0 + \alpha_1 \ln GDP_i + \alpha_2 \ln GDP_j + \alpha_3 \ln POP_i + \alpha_4 \ln POP_j + \alpha_5 \ln DIST_{ij} + \alpha_6 ADJD_{ij} + \alpha_7 AREAD_i + \alpha_8 LLOCKD_i + \alpha_9 CONTD_{ij} + \alpha_{10} GTI_i + \varepsilon_{ij}
\]

5. Data and Methodology
We have used panel data to figure out the gravity equations for a period of 21 years (1995-2015) in ECO countries. Pooled OLS regression or constant coefficient model\(^{17}\) technique has been employed to probe the determinants of bilateral trade in ECO economies. Panel data gives more informative data, more variability, less collinearity among variables, more degree of freedom and more efficiency (Gujarati, 2009).

The summary of description of each variable, its unit of measurement and sources of data are given in Table 2.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>Unit</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDPi</td>
<td>Gross Domestic Product of ECO countries (i = 1,2,3,4,5,6,7,8,9)</td>
<td>Current US$ Million</td>
<td>World Bank Development Indicators (WDI) Database [<a href="http://worldbank.org">http://worldbank.org</a>]</td>
</tr>
<tr>
<td>POPi</td>
<td>Number of Population in country i</td>
<td>Million</td>
<td>World Bank Development Indicators (WDI) Database</td>
</tr>
</tbody>
</table>

\(^{5}\) It assumes that the coefficients remain the same across time and cross section (Gujarati, 2016)


<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>POPj</td>
<td>Number of Population in Pakistan</td>
<td>Million</td>
</tr>
<tr>
<td>DISTij</td>
<td>Geographical Distance of ECO countries and Pakistan</td>
<td>Kilometer</td>
</tr>
<tr>
<td>ADJDij</td>
<td>Adjacent /Common Borders Dummy</td>
<td></td>
</tr>
<tr>
<td>AREADi</td>
<td>Area Dummy</td>
<td>It takes the value of 1 where the country area greater than 1.5 million km square otherwise zero</td>
</tr>
<tr>
<td>LLOCKDi</td>
<td>Landlocked country Dummy</td>
<td>It takes the value of 1 where the country is landlocked otherwise zero</td>
</tr>
<tr>
<td>CONTDi</td>
<td>Continent Dummy</td>
<td>It takes the value of 1 where the country is in the same continent otherwise zero</td>
</tr>
<tr>
<td>GTi</td>
<td>Global Terrorism Index of country i</td>
<td>GTI uses a base 10 logarithmic banding system between 0 and 10 at 0.5 intervals</td>
</tr>
</tbody>
</table>

Note: The subscript j denotes Pakistan and i shows other ECO countries

6. Results and Discussions
This section delves into the estimated trade gravity models shown in section 2. We investigate the factors of bilateral trade between Pakistan and ECO region by traditional gravity trade equation (equation 8) that particularly concentrates on the transaction cost determinants of bilateral trade. Besides, we have modified the traditional gravity trade equation (equation 9) and include various dummies such as area, landlockedness and continent dummies. Moreover, Global Terrorism Index has also been added in the modified gravity trade equation.

6.1 Traditional Gravity Trade Model
Pooled least squares estimates of traditional gravity model of trade are displayed in Table 3. Income variables have two aspects i.e. demand side (import) and supply side (export). Both coefficients of GDPs are expected to have positive sign with bilateral exports between Pakistan and other ECO countries. On demand side, an increase in the income of the trading partners of Pakistan would increase the expenditure capabilities and demand for imports while on the supply side, a rise in Pakistan’s income also has the positive effect on the Pakistan exports to the ECO countries as high income indicates more production in volume and varieties is available for exports. A comparison of the coefficients of GDPs exhibits that exporter’s positive income effect dominates importer’s positive income effect.

The size of a country in terms of population matters a lot in determining bilateral trade. Population of exporter and importer has indeterminate effects i.e. it can reduce or enhance trade flows. The sign of importer population is positive suggesting the division of labor argument by generating the opportunities for demand for imports in a variety of commodities. Conversely, the coefficient of exporter population i.e. Pakistan is negative indicating that a country with large population has large resource endowment, self-sufficiency and less reliance on international trade. Therefore, population size of Pakistan has a negative effect on bilateral exports flows validating the argument that a country can easily achieve minimum efficient scale due to a larger population which could cause her to engage less in exports relative to a less populous country. Furthermore, the coefficients of Populations indicate that...
exporter’s negative population effect dominates the importer’s positive population effect. However, in addition to population, this also depends on various other geopolitical and economic opportunities and challenges with regard to the relationship between the countries.

Table 3: Pooled Least Square Estimates of Traditional Gravity Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Least Square Standard Errors</th>
<th>Cluster-Robust Standard Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>22.64513</td>
<td>3.931053</td>
<td>5.760577</td>
</tr>
<tr>
<td>Ln(GDPi)</td>
<td>0.337636</td>
<td>0.154412</td>
<td>2.186587</td>
</tr>
<tr>
<td>Ln(GDPj)</td>
<td>0.518479</td>
<td>0.472545</td>
<td>1.097205</td>
</tr>
<tr>
<td>Ln(POPi)</td>
<td>1.365726</td>
<td>0.178154</td>
<td>7.665998</td>
</tr>
<tr>
<td>Ln(POPj)</td>
<td>-4.405244</td>
<td>1.615979</td>
<td>-2.726053</td>
</tr>
<tr>
<td>Ln(DISTij)</td>
<td>-1.569736</td>
<td>0.297727</td>
<td>-5.272409</td>
</tr>
<tr>
<td>ADJDij</td>
<td>0.498653</td>
<td>0.264527</td>
<td>1.885077</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

Turning the coefficient of natural trade-resistance variable\(^{18}\) of distance, it obviously shows negative sign with bilateral exports between Pakistan and ECO countries. It means with an increase in distance\(^{19}\), the trading and transportation cost would increase and resultantly profit margins could be lower for the importer that lead to reduction in trade flows. Long distance creates the non-economic horizon for the traders because ‘psychic distance’ in the form of uncommon and unacquainted laws, habits, language, institutions, taste and preferences, way of life creates more distance between them and therefore distance has an adverse effect on trade flow between countries.

To consider the transportation cost, a dummy variable of adjacency is included in the traditional trade gravity model. The coefficient of adjacency turns out with positive sign with value of 0.50 endorsing the argument that the countries with common border or adjacency have more potential to trade each other. We have to interpret the value of dummy variable of ‘adjacency’ carefully as the dependent variable is logarithmic so we have to take the exponent of dummy variable. It shows that exports of the countries which share the common border is 1.6 times higher than the countries that do not share common border\(^{20}\).

Now we discuss the consistency and validity of our pooled least square estimates. In fact, pooled least square regression assumes a very unrealistic assumption that there is no correlation between errors related to the same individual. But in reality, if the unobservable individual characteristics are not included as explanatory variables in the form of dummies in the model, these characteristics would include an error term creating a correlation between errors. In this situation, the standard errors will be invalid and reliability of the least squares estimators is doubtful. Many researchers have proposed various methods for correcting the standard errors e.g. White’s heteroskedasticity-consistent standard errors test and Newey-West standard errors test etc. Similarly, valid standard errors for the pooled least squares estimators can be computed through panel-robust standard errors or cluster-robust standard errors\(^{21}\) (Hill, Griffiths & Lim, 2014).

If we compare the pooled least-squares standard errors with the counterpart cluster-robust standard errors, it indicates that all cluster-robust standard errors are 50% higher than the corresponding pooled least-squares standard errors.

\(^{18}\) Linnemann (1966) pointed out three factors to explain the natural trade resistance i) Transport cost ii) transport time and iii) economic horizon or Psychic distance. Transport cost is determined by geographical distance, kinds of commodity, kind of surface and number involved in reloading operations. Transport time is established by perishable good, interest cost, risk of losing opportunities and adjustment according to changing conditions. Economic horizon or psychic distance can be explained by laws, habits, language, institutions, preferences, way of life etc.

\(^{19}\) It is the geographical distance between two capital cities or big cities.

\[^{20}\] \(\exp^{0.50} = 1.65\)

\(^{21}\) Clusters are the time series observations on individuals.
errors. There is none or little effect on the conclusions regarding the significance of estimated coefficients because both set of standard errors have almost the same p-values. Two variables namely Ln(GDPj) and Ln(POPi) have changed their probability values from 0.27 to 0.07 and 0.00 to 0.25 respectively, casting doubt about these variables.

6.2 Modified Gravity Trade Model

Now we explain the results of modified gravity trade model. In modified model, we have augmented the various dummies such as area, landlockedness and continent dummies. Additionally, global terrorism index has also been added to analyze the impact of terrorism on bilateral export flows. The summary of results of the pooled least squares regression method is displayed in Table 4. The coefficients of GDPs, Populations, distance and adjacency have similar results to those of traditional gravity trade model. It can again be observed that the exporter’s economic ability dominates importer’s economic effect and exporter’s negative population effect dominates the importer’s positive population effect. The magnitude of distance and adjacency variables changes more in the modified model.

Coming to the dummy variable of ‘Area’, its coefficient has appeared with positive sign having the value of 0.95 endorsing the argument that the importer countries with large physical area can create the opportunities for demand for imports in a variety of commodities due to the division of labor argument. In other words, a large country might have more resources endowment than the small area based countries, so they can have greater economic activity across borders. As bilateral exports are in logarithmic form, we have to take the exponential value\(^{22}\) to interpret the dummy variable of Area. It shows that imports of countries with large physical area have 2.6 times higher exports than countries with small physical area.

Landlockedness is another geographical measure. The coefficient of dummy variable of ‘landlockedness’ is negative having the value of -2.90 validating the argument that landlocked importer countries have less demand for imports due the fact that landlockedness increases transportation cost\(^{23}\) relative to non-landlocked or coastal countries. Bilateral exports are expressed in logarithmic form, so we have to take the exponential value\(^{23}\) to interpret the dummy variable of ‘Landlockedness’. It illustrates that imports of landlocked countries as 18.2 times lower than the coastal countries.

### Table 4: Pooled Least Square Estimates of Modified Gravity Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Least Square Standard Errors</th>
<th>Cluster-Robust Standard Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>16.24847</td>
<td>2.614149</td>
<td>6.215589</td>
</tr>
<tr>
<td>Ln(GDPi)</td>
<td>0.186730</td>
<td>0.072211</td>
<td>2.585902</td>
</tr>
<tr>
<td>Ln(GDPj)</td>
<td>0.498633</td>
<td>0.249373</td>
<td>1.999549</td>
</tr>
<tr>
<td>Ln(POPi)</td>
<td>0.535288</td>
<td>0.131180</td>
<td>4.080567</td>
</tr>
<tr>
<td>Ln(POPj)</td>
<td>-2.715493</td>
<td>0.937679</td>
<td>-2.895974</td>
</tr>
<tr>
<td>Ln(DISTij)</td>
<td>-0.959487</td>
<td>0.162501</td>
<td>-5.904508</td>
</tr>
<tr>
<td>ADJDij</td>
<td>3.686076</td>
<td>0.588413</td>
<td>6.264440</td>
</tr>
<tr>
<td>AREADi</td>
<td>0.945420</td>
<td>0.133676</td>
<td>7.072454</td>
</tr>
<tr>
<td>LLOCKDi</td>
<td>-2.901388</td>
<td>0.348769</td>
<td>-8.318942</td>
</tr>
<tr>
<td>CONTDi</td>
<td>6.449350</td>
<td>0.611116</td>
<td>10.55339</td>
</tr>
<tr>
<td>GTi</td>
<td>-0.227354</td>
<td>0.066447</td>
<td>-3.421564</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations

\(^{22}\) [\(\exp^{0.95} = 2.6\)]

\(^{23}\) Limao and Venables (2001) argued that landlockedness increases the trade cost due to border delays, high insurance cost due to uncertainty and delays, transportation coordinated problem and transitory charges etc.
The dummy variable of ‘continent’ has appeared with positive sign. The value of the coefficient is 6.45 suggesting that the countries belonging to the same continent have more trade flows with each other than those countries which are not situated in the same continent due to the cost factor. Since the dependent variable is in logarithmic form, so it is necessary to show the coefficient of continent in exponential form to understand the results. It demonstrates that the countries that are linked within the same continent have 665.14 times higher exports flows than countries in another continent.

Finally, we have added an important variable of terrorism\(^{24}\) to examine the impact of terrorism on bilateral export flows. The coefficient of terrorism has appeared with negative sign showing that terrorism hurts bilateral trade flows. Terrorism generally exerts negative impact on international trade through trade cost factor. Specifically, trade cost escalates and results in reduction in trade flows due to distrust in international trade relations, change in production and consumption patterns\(^{25}\), insecure trade transactions, increase in cost of doing business due to larger risk, destruction of tradable commodities and physical transport structure and low cross-border transactions due to security standards (Nitsch and Schumacher, 2004; Egger and Gassebner, 2014).

Turning to the comparison between pooled least-squares standard errors and cluster-robust standard errors, it points out that six out of ten cluster-robust standard errors are 50% lower than the corresponding pooled least-squares standard errors. There is none or little effect on the conclusions regarding the significance of estimated coefficients because both set of standard errors have almost the same p-values. Three variables namely Ln(GDPi), Ln(DISTij) and GTIi have changed their probability values from 0.01 to 0.88, 0.00 to 0.60 and 0.00 to 0.47 respectively, casting doubt about these variables.

7. Conclusions and Policy Recommendations
This study provides an analysis of Pakistan’s bilateral trade in ECO region. The main purpose of this study is to assess the determinants of bilateral trade flows using the gravity trade model. Panel least square regression has been applied over the period of 1995 to 2015. Two types of gravity models have been estimated: one is traditional gravity trade model and the other is modified gravity trade model.

The results based on traditional gravity trade model suggests that income elasticities of both the exporting and importing countries are positive and exporter income effect dominates importer income effect. Population elasticities have mixed results i.e. it is negative in the case of exporting country and positive for importing countries and exporter’s negative population effect dominates the importer’s positive population effect. Additionally, distance turns out with negative sign while adjacency is positively related with bilateral exports flows.

So far as modified gravity trade model is concerned, we have added three dummy variables such as area, landlockedness and continent along with global terrorism index traditional gravity trade model to analyze the patterns of bilateral export flows. The results of the modified gravity trade model exhibits that there is no change in the signs of the traditional gravity trade model variables. However, the magnitude of distance and adjacency variables alter more in the modified model.

The result from dummy variable of area shows that imports of countries with large physical area are higher than the countries with small physical area due to the division of labor argument. The coefficient of dummy variable of landlockedness demonstrates that imports of landlocked countries are lower than that of coastal countries as a result of high transportation costs. Furthermore, the variable of continent validates that the countries that are linked with the same continent have higher exports flows than countries not in the same continent. Another important variable that can affect trade flows is terrorism. The findings of the coefficient of terrorism confirm the proposition that terrorism is a bane for trade flows due to miscellaneous factors.

\(^ {24}\) Buckelew (1984) defines terrorism as ‘‘violent, criminal behavior designed primarily to generate fear in the community, or in a substantial segment of the community, for political purposes’’.

\(^ {25}\) Due to terrorism, people become nervous and hesitate to travel and shopping as they considered themselves unsafe so resultantly production, consumption and trade patterns disturb in the country.
The key policy recommendations to enhance bilateral trade flows from Pakistan to ECO countries include the following:

- The results show that economic growth plays a significant role in boosting the trade flows of Pakistan. It can be suggested that policies should focus on improving economic growth in order to enhance trade flows.
- As an exporter to ECO countries, with its large population, Pakistanis might apply themselves less to increase trade. However enhancing trade with its ECO partners would be beneficial for improving the welfare of people in Pakistan. Therefore, it is essential to have policies in Pakistan to involve people in greater trade flows with ECO countries.
- As proximity variables distance, landlockedness generally reduces bilateral exports flows, therefore, the need is to improve infrastructure for modern and faster transportation between trading partners to enhance trade flows. Terrorism also hurts trade flows due to miscellaneous factors so it is essential to take measures to eradicate terrorism.

In a nutshell, there is no doubt that more research can be conducted depending upon data availability. Nevertheless, we believe that this study has made a valuable contribution to empirical literature of determinants of trade in ECO region.

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Portfolio Selection and Optimization through Neural Networks and Markowitz Model: A Case of Pakistan Stock Exchange Listed Companies

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ARTICLE DETAILS

ABSTRACT

This paper used artificial neural networks (ANNs) time series predictor for approximating returns of Pakistan Stock Exchange (PSX) listed 100 companies. These projected returns are then substituted into expected returns in the Markowitz’s Mean Variance (MV) portfolio Model. For comparison empirical data used is closing prices of PSX listed stocks, Karachi Inter Bank Offer Rates (KIBOR) as risk free rate and KSE-all share index as benchmark. The Portfolio returns are compared for two datasets by employing various constraints like budget, transaction costs, and turnover constraints. The value of portfolios is measured through Sharpe ratio and Information ratio. Both Sharpe and Information ratios support use of ANNs as return predictor and optimisation tool over simple MV model implemented for empirical data as well as predicted data. ANNs framework performed better in both Long and Short positions and its portfolio returns are significantly higher as compared with MV.

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1. Introduction

The purpose of an investor is to maximize portfolio profit by amending risk. Portfolio helps reduce risks using excess returns as against individual stock investment. Portfolio dilemma is to appropriate wealth between diversified stocks to maximize profits. Various aspects, like investment time span, features of the stock market and the profit aim of the investor affects the investment strategy. The simple mean–variance methodology coined by Markowitz (1952) forms the basis of portfolio. The mean–variance framework is a parametric streamlining model for the single-time frame (Markowitz H., 1952; Chan, 1999). Formulation of investment strategies means making the right choice about selection of stocks to invest over a specified period of time. Multiple factors effect this
choice such as purpose of the investment, characteristics of market factors and desirable period of investment. Mean-variance framework developed by Markowitz is the foundation of portfolio investment decisions to meet the foremost expectation of investors to reduce the risk. Markowitz’s M-V model is considered as the best possible choice for single time frame investments.

Neural systems can be characterized as computing system involving numerous ordered apparatuses having real time fast reaction to external inputs (Caudill M., 1989; Odom, 1990; Caudill M. B., 1992). The inspective methods of ANNs originated in 1943 with the objective of evolving credibly pertinent rules and regulations for apparatuses. Thus, the phenomenon of artificial intelligence is used to compete with human intelligence to sole investment problems (McCulloch, 1943; 1990; Zahedi, 1991). The apparent edge of this method over traditional Mean-Variance framework was that the later could not explain the effect of error calculations regarding Portfolio selections (Jorion, 1992). In current research, Neural Network predictors were used to account for the effect of errors (Ceria & Stubbs, 2016; Braun, 2017).

Proficient portfolio choice is welcomed as a highly significant choice by many applications such as addition of MV framework in the development of contemporary portfolio theory (Markowitz H., Portfolio Selection, 1952; Elton, 1976). The cautious financiers are always looking at risk and returns jointly rather than treating them separately (Abdulnasser Hatemi-J, 2015).

In current research, our main focus is to predict best possible portfolio investment choice by using a fusion model combining Markovian model with NN feed forward, back promulgation along with time series instrumentation. As suggested by (Liu, 2009), neural system is used to estimate future price of stock from daily price data and the difference between both is used to calculate forecasted returns. The same forecasted returns are used as returns expectations in the Markovian model.

Moreover, we also utilized additional restraints for portfolio optimization of Pakistan Stock Exchange listed companies to reduce the dependence on only one measure and improve overall efficiency. Thus, diversified approaches are used the perseverance of optimization (Fernández, 2007; DeMiguel V. G., 2009a; 2009b; Kritzman, 2010; Coqueret, 2015; Hatemi-J, 2015).

2. Portfolio Selection, Optimization, And Evolution Of Our Hybrid Model

2.1 Neural Networks
The format of a system consist of representation of number of stratum in a system, the amount of neurons in each strata, interchange capability of each strata, and how strata intermingle with each other. The best system is the one which had more capability to address diversified issues and concerns to account for (Rosenblatt, 1962).

2.2 Neural Network Time Series Prediction
Predicting upcoming approximations of financial issues is a pre-dominant factor for both financial modelling as well as determining choices for businesses. It is very challenging to offer exact forecasts particularly during financial crisis causing non-linear impacts. In this research an attempt has been made to address the comparatively impulsive nonlinear effects. Standard methods of econometrics such as direct autoregressive method and Autoregressive moving averages are traditionally used for documentation of the practices (Box & Jenkins, 1976; Commandeur & Koopman, 2007). But, it has been observed that such direct approaches are deficient in terms of effectiveness and ability to forecast precisely.

In this regard, Granger (1993) recommended that hidden nonlinearity must be coped with adjustment of nonlinear strategies particularly during monetary instability. Substantial amount of nonlinear strategies have appeared from 1990 which are categorised under parametric (having fixed number of parameters) and non-parametric (not having fixed number of parameters) modelling (Granger & Teräsvirta, 1993). Because we used limited number of fixed parameters, thus we utilized parametric methods of approximation.

2.3 Feed-Forward and Back-propagation
NN uses feed-forward back-propagation procedure and in that procedure, a lesser unit denoted by ‘i’ receives input signs of function F and converts it into output O which is moved to further units of NN mesh consequently.
In feed-forward disposal, three constituents are utilized i.e. hidden, output and input components. Input part incorporates indications from outside and resides in inner most layer, hidden part (as the name indicates) remains hidden and does not impede with outside while, output part transmit indications to outside and resides in outer most layer. Intra layer relationships/connections are not permitted and only could be allowed with linking vectors ‘W’ on the basis of nature of arbitrary information to be given (Williams, 1986; Tam, 1992).

Back-propagation procedure is highly useful as it possesses the capability to allocate weights to multilayer according to its importance consecutively (Rosenblatt, 1962). It also consist of two portions i.e. initially it promulgates forwardly and then backwards as mentioned by Tam, (1992).

After error calculations, the model intends to reduce the errors to curtail the variances between output produced and actual output vectors by fluctuating weights (equation 2.1), $\epsilon$ is termed as convergence rate.

$$\Delta w_{ij} = - \frac{\partial E}{\partial w_{ij}} \epsilon,$$ (2.1)

### 2.4 Proposed NARX Model of Neural Networks

“NARX (nonlinear autoregressive with exogenous inputs) is anticipated to predict series of $y(t)$ supposing $d$, historic values of $y$ sequence and an additional exterior $x(t)$ sequence, which could be solitary or multi-dimensional and $\epsilon(t)$ is error measure” (Hannan, 1970; Hamilton, 1994; Lin, 1996; Weron, 2014; Theodoridis, 2015; Ruiz, 2016).

NARX model and its formula to estimate price is portrayed in the equation below;

$$\text{Output series} = \{h(x(t-1), x(t-2), ..., x(t-d), y(t-1), y(t-2), ..., y(t-d)) + \epsilon(t)\}$$ (2.2)

In the above equation, output is denoted by $y(t)$ while ‘$h$’ function is anonymous at the beginning and later determined by incorporating neural network with adjusting weights and biases optimization.

**Figure 1: NARX suggested Functionality**

At the core, NARX utilizes Levenberg-Marquardt back propagation procedure (LMBP) which is regarded as the most acceptable and recognised algorithm (Hagan, 1994; Chauvin, 1995). This algorithm is proposed to estimate “second-order derivatives” without obligation to compute ‘Hessian matrix’ subsequently. This enhances the speed of the network. Furthermore, after calculating sum-of-square to denote performance, this matrix is approached as mentioned in equation 2.3 below. The gradient is expressed in the following equation i.e. 2.4.

$$h = J^T J$$ (2.3)  
$$g = J^T e$$ (2.4)

here, $J$ = Jacobian matrix incorporating 1st errors derivative  
and, $e$ = vector for errors in every training population

LMBP algorithm applies “back-propagation method” to calculate Jacobian-Matrix in the Newton-like explanation manifested in the Equation below

$$x_{t+1} = x_k - [J^T + \mu I]^{-1} J^T e$$ (2.5)  
where, $\mu I$ = fixed effects
Thus, Jacobian matrix is used to compute results. Hereafter, this network uses MSE or SSE as error measures stated in subsequent equations (Safavieh, 2007; Weron, 2014; Ruiz, 2016).

LMBP calculates the difference between targeted and predicted value

\[ \text{SSE} = \sum_{i=1}^{n} (\text{target value} - \text{output value})^2 \]  
\[ \text{MSE} = \frac{\sum_{i=1}^{n} (\text{target value} - \text{output value})^2}{\text{no. of data samples for training}} \]  

Output value is saved with the name of ANNs predicted prices, Recorded errors are saved as MSE and regression factor is saved as ‘Rt’ (LeSage, 1999).

2.5 Traditional empirical form of Mean-Variance Markovian Model (for the purpose of Portfolio Optimization)

The basis of this model is risk and return measurement of undeviating stocks from unique measurement of every single stock in the pool. Such a distinct calculation of projected returns is based on arithmetic mean of returns of stock as mentioned below;

Minimizing, \[ V = \sigma^2 p = \sum_{i=1}^{M} X_i^2 V_i + \sum_{i=1}^{M} \sum_{j=1, i \neq j}^{M} X_i X_j Y_{ij} \]  

\[ \text{given as}, \quad \sum_{i=1}^{M} X_i \bar{R}_i = R_t, \]  

\[ \text{also}, \quad \sum_{i=1}^{M} X_i = 1, \text{and} \]  

\[ \text{and,} \quad X_i \geq 0, i = 1, 2, ..., M \]  

Equation (2.9) is the compression of estimated returns, \( R_t \). Equation (2.10) assures total resource endowment, and Equation (2.11) limits the model intended for purchasing stocks.

Setting standard framework for ‘Rt’ is used to determine chosen return with the objective of least risk in every portfolio. Such portfolios are called “efficient” and accordingly investment strategy is labelled as “efficient divergence”. “Every set of these stocks have their peculiar efficient frontiers that hang on only with distinct expected risk-returns of every stock and with its time sequence correlation as covariance matrix” (Fama, 1972; Kroll, 1988; Markowitz., 1991).

2.6 Proposed ANNs Model (for the purpose of Portfolio Optimization)

The ANNs return \( \bar{R} \), calculated with ‘neural network time series predictor’ is used to denote returns in the proposed model of this research. Returns and risks are computed as under;

\[ \text{ANNs Portfolio Risk} \quad \hat{\sigma}^2 = \frac{1}{N} \sum_{t=1}^{N} (R_t - \bar{R})^2 \]  
\[ \text{ANNs Portfolio returns} \quad R_p = \sum_{i=1}^{M} X_i \bar{R}_i \]  

where, \( \hat{\sigma} = \text{the risk of forecasted return} \), \( N = \text{the number of previous times} \) 
And, \( R_t = \text{return seen in time t} \), \( \bar{R} = \text{predicted return} \)
The degree of collaborating risk $\hat{\gamma}_{ij}$ is expounded as:

$$\text{Interactive Risk(Covariance)}\hat{\gamma}_{ij} = \frac{1}{N} \sum_{t=1}^{N} (R_{it} - \bar{R}_i)(R_{jt} - \bar{R}_j)$$  \hspace{1cm} (2.14)

where, $\hat{\gamma}_{ij}$ = similarities of the covariance of stocks i and j, and, $R_{it}, R_{jt}$ = the return of stocks i, j at time t, also, $\bar{R}_i, \bar{R}_j$ shows predicted return of stocks i, j and $N$ = no. of previous times.

After explaining all the variables as well as formulas, we are giving our Mean-Variance Portfolio Optimization Model with ANNs forecasted Returns as:

$$\text{Minimize } \bar{\Sigma} = \sum_{i=10}^{M} X_i^2 \bar{\varphi}_i + \sum_{i=10}^{M} \sum_{j=10, i \neq j} X_i X_j \hat{\gamma}_{ij}$$ \hspace{1cm} (2.15)

where, $\sum_{i=10}^{M} X_i \bar{R}_i = R$, \hspace{1cm} (2.16)

also $\sum_{i=10}^{M} X_i = 1$ and \hspace{1cm} (2.17)

and, $X_{io} \geq 0, i = 1, ..., M$ \hspace{1cm} (2.18)

Equation (2.16) is the compression of expected return $R_t$, Equation (2.17) assures total resource provision, and Equation (2.18) limits the model planned for purchasing stocks.

2.7 Application of Constraints in our Model
As suggested by (Patrick Behr, 2013), we shaped usual mean-variance portfolio optimization using different restraints.

2.7.1 Equally-weighted Portfolio
“Portfolio that assimilated completely-invested portfolios, whose weights equal to a sum of 1 by applying $\frac{1}{N}$ rule of naïve-portfolio we set up equally weighted portfolio” (Levy & Levy, 2014)

2.7.2 Transaction Costs
As suggested by (Ramilton, 2014), lesser buying and selling costs were set to evade any variances in real and predicted data.

$$w = \dot{w} + x^+ + x^-$$ \hspace{1cm} (2.19)

where, $x^+$ = buying cost, $x^-$ = selling cost,

$w =$ total weights, $\dot{w}$ = weights of present portfolio

$$\varphi = C_i^b x^+ + C_i^s x^-$$ \hspace{1cm} (2.20)

here, $C_i^b =$ buying cost of i stocks, $C_i^s =$ selling cost of i stocks

2.7.3 Turnover Constraint
This constraint concludes that many trades can transmit a distinctive portfolio to an unhindered effectual domain. Afterwards, this constraint offers a plan where time deviation can rupture trades over abundant periods of time (Perold, 1984; Grinold, 1993; Frank J. Fabozzi, 2002; Serbin, 2008).
\[ \sum_{i=1}^{N} (w_i - \dot{w}_i) \leq U_{TO} \]  

(2.21)

Here, \( \dot{w}_i \) represent present portfolio weights and \( U_{TO} \) is turnover constraint.

### 2.7.4 Sharpe Ratio

Primarily, this ratio shows degree of returns to risk which could be highly significant for portfolio’s investments (Sharpe W. F., 1963). It was computed using the formula below;

\[
S \text{ Ratio} = \frac{(R_p - r_f)}{\sigma_p} 
\]

(2.22)

Unambiguously, “any portfolio that offers the most of S ratio is given to be a tangency portfolio scheduled along efficient frontier by mutual-fund statement” (Ross, 1976)

### 2.7.5 Information Ratio

It is an interconnected ratio for portfolio investments which is based on the usage of comparative returns (Goodwin, 2009). The formulas used to compute this ratio are mentioned below;

Relative returns = \( (R_p - r_i) \) \hspace{1cm} (2.23)

Information Ratio = \( \frac{(R_p - r_i)}{\sigma_{p,i}} \) \hspace{1cm} (2.24)

where, \( R_p = \) return of the prices, \( r_i = \) index returns, \( \sigma_{p,i} = \) standard deviation of difference of \( R_p \) and \( r_i \)

### 130/30 Portfolio

Lastly, turnover constraints were used to estimate portfolio feasibility and viability by establishing 130-30 portfolio. Leverage was set at the rate of 30% in the respective variable (Johnson, 2007). The limits were set according to the assortment of stock weights (-Leverage and 1 + Leverage). In the meantime, “total net positions essentially be long and budget-constraint set to 1 and original portfolio is still 0” (Lo, 2008).

### 3. Results Discussion

The subsequent experiential summary of hypothesis has been acknowledged:

<table>
<thead>
<tr>
<th>No.</th>
<th>Hypothesis</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>‘Portfolio returns escalate considerably using Neural-Networks as compared with simple mean variance model by relating equal weighted portfolio.’</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2</td>
<td>‘Portfolio Returns escalate considerably using Neural-Networks with Budget constraints as compared to simple mean-variance model.’</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3</td>
<td>‘Portfolio Returns escalate considerably using Neural Networks with Target risks and Target returns constraints respectively as compared to simple mean-variance model.’</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4</td>
<td>‘Portfolio Returns escalate considerably using Neural Networks with Transaction cost constraints as compared to simple mean-variance model.’</td>
<td>Rejected</td>
</tr>
<tr>
<td>H5</td>
<td>‘Portfolio Returns escalate considerably using Neural Networks with Turnover constraints as compared to simple mean-variance model.’</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
H6 ‘Portfolio Returns escalate considerably using Neural Networks with Sharpe Ratio as compared to simple mean-variance model.’ Accepted

H7 ‘Sharpe ratio portfolio is also a tangency portfolio using mean-variance model and neural networks.’ Accepted

H8 ‘Portfolio Returns escalate considerably using Neural Networks with Information ratio as compared to simple mean-variance model.’ Accepted

H9 ‘The portfolio made by Neural Networks and Simple mean-variance model are extremely practical for investment by 130/30 approach.’ Accepted

Figure 2: Descriptive Analysis

3.1 Findings of H1
Initially, each stock was given equal weights as 1/100 = 0.01, then weights of 100 stocks were computed. Afterwards, average return of 1200 obs was multiplied with each weight to calculate weighted average return for portfolio.

Table 2: Risk and return for naive portfolio

<table>
<thead>
<tr>
<th>Equally-weighted Portfolio</th>
<th>Mean Variance</th>
<th>Artificial Neural Networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ereturn</td>
<td>0.001239959</td>
<td>0.000406</td>
</tr>
<tr>
<td>Erisk</td>
<td>0.008341139</td>
<td>0.008226649</td>
</tr>
</tbody>
</table>

Figure 3: Efficient frontier of simple Mean-variance model
Figure 4: Efficient frontier of ANNs Mean-variance model

Simple Mean Variance model implies that if we invest 1 rupee then after the period of 5 years, we would be at 2.46 rupees. Contrary to that, artificial neural networks model implies that with the investment of 1 rupee, we would yield increase of 1.51 rupee after the same period of 5 years. The same result is also portrayed in the following figure that for an immature portfolio, simple M-V model yield higher returns as compared to neural network for Pakistan Stock Exchange listed companies.

Figure 5: Portfolio returns on the basis of naïve/immature portfolio
3.2 Findings of H2
The risk for artificial neural network price return is 0.1838 (if daily return data for risk is annualized by multiplying it with the square root of 360) for simple closing price of 0.126. If we compare return for artificial neural network with the real price then the value for ANN is 0.619 and the value for real price is 0.630. These arrays portray that both have almost analogous level of risk and return budget restrictions. On the contrary, M-V model provided greater returns as compared with artificial neural networks.

<table>
<thead>
<tr>
<th>Portfolio without constraints</th>
<th>With Budget Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prisk</td>
<td>0.1738</td>
</tr>
<tr>
<td>Artificial Neural Networks</td>
<td>0.201</td>
</tr>
<tr>
<td>Qrisk</td>
<td>0.126</td>
</tr>
<tr>
<td>preturn</td>
<td>0.834</td>
</tr>
<tr>
<td>Qreturn</td>
<td>0.183</td>
</tr>
<tr>
<td>Mean Variance</td>
<td>0.638</td>
</tr>
<tr>
<td>Artificial Neural Networks</td>
<td>0.619</td>
</tr>
</tbody>
</table>

Table 3: Return and risk on the basis of Budget restriction

3.3 Findings of H3
The findings of this research showed that if targets for risk return are set then, simple mean variance model offers better returns as compared with artificial neural networks. 1 rupee investment yields 5.7 rupee in simple mean variance model and same investment yields 5.6 rupees through artificial neural networks.

Figure 6: Portfolio returns based on Targeted risks

1 rupee’s investment in target risk portfolio yields 2.19 rupee in simple mean variance model and same investment yields 1.76 rupees through artificial neural networks for a total period of 5 years.

Figure 7: Portfolio returns based on targeted returns
3.4 Findings of H4
Returns change radically for simple mean variance model though change is lesser for artificial neural networks if transaction costs are applied. At the same time, this must be taken into account that returns upsurge expressively for mean variance model (0.56) as compared with artificial neural networks (0.35).

Table 4: Portfolio returns/risks based on transaction costs

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<thead>
<tr>
<th></th>
<th>Without Transaction costs</th>
<th>With Transaction costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Variance</td>
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<td>qreturn</td>
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3.5 Findings of H5
Examination of the results portrayed that with turnover constraint, artificial neural networks yields improved returns as compared with M-V model. The table below denotes ‘p’ values for unconstrained portfolio and ‘q’ values for constrained portfolio. Qret value for artificial neural networks is 0.0058 and Mean variance model is 0.0046 with 0.20 turnover constraints.

Table 5: Portfolio returns and risk with or without turnover constraint

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<tr>
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<th>Unconstrained</th>
<th>Constrained with 20% turnover</th>
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</thead>
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<tr>
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<td>Qret (MV) 0.001 to 0.0046</td>
</tr>
<tr>
<td>Pret (ANN)</td>
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<td>Qret(ANN) 0.00002 to 0.0058</td>
</tr>
<tr>
<td>Prsk (MV)</td>
<td>0.0042 to 0.026</td>
<td>Qrsk (MV) 0.0039 to 0.038</td>
</tr>
<tr>
<td>Prsk(ANN)</td>
<td>0.0041 to 0.035</td>
<td>Qrsk(ANN) 0.0039 to 0.046</td>
</tr>
</tbody>
</table>

3.6 Findings of H6
1 rupee investment in Sharpe ratio portfolio yields 4.6 rupee in simple mean variance model and same investment yields 4.96 rupees through artificial neural networks for a total period of 5 years. In this case, our proposed hypothesis is accepted.

Figure 8: Portfolio returns by Sharpe Ratio
3.7 Findings of H7

Tangency portfolio demonstrates that financiers can derive their finances at the rate which is comparatively free of risk capitalise that amount to purchase the stock options that could be regarded as bets portfolio investment. For such a rate, 100 moving means from KIBOR weekly rates of 1222 findings were developed to construct matrix of sample stocks. Such pictorial representations elaborated similarity of tangency portfolio with Sharpe ratio when budget restrictions of 0 to 100% cash was applied. MV models are depicted on the left side while ANN models are depicted on right side. It is quite evident from the pictures below that Sharpe ratio is tangent to stock collection.

Figure 9: Sharpe is tangency Portfolio for MV and ANNs

3.8 Findings of H8

1 rupee investment in Pakistan Stock Exchange portfolio yields 4.69 rupee in simple mean variance model (representing closing price return) and same investment yields 8.02 rupees through artificial neural networks for a total period of 5 years. In this case, our proposed hypothesis is also accepted.

Figure 10: Portfolio returns with information ratio

3.9 Findings of H9
The findings of this research elaborated that portfolios met the requirements for long positions as well as short positions (130/130 assembly mentioned in Table A.1), therefore, both respective portfolios are viable for financial ventures. Equally weighted portfolio yields lower returns as compared with 130/130 thus proving that our recommended stock investments are extremely superior and practical as investment options. Simply artificial neural networks subjugate and vanquishes traditional M-V model. Consequently, returns escalates by 3.9% with our proposed articulation of artificial neural networks.

Table 6: Portfolio return/risks with 130/130 and r without 130/30 fund structure

<table>
<thead>
<tr>
<th>Portfolio without constraints</th>
<th>With 130/30 Fund Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Variance</td>
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<tr>
<td>Prisk</td>
<td>0.1738</td>
</tr>
<tr>
<td>preturn</td>
<td>0.834</td>
</tr>
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</table>

4. Conclusion
The primary purpose of this research was to analyse the effect of artificial neural networks in portfolio optimization in the scenario of Pakistan stock exchange listed organizations as compared with the traditionally renowned model of Mean-Variance. To achieve this, nine hypothesized relationships were established and tested. The findings of current study reflected that in some cases artificial neural networks outclass and overtook M-V model significantly and in some other cases it was not able to achieve the similar result. Thus it could be concluded that for Pakistan stock exchange listed organizations, artificial neural networks could be utilized as a preferential tool for estimating risks and returns possibilities. Artificial neural networks could be seen as a viable option to answer complicated financial situations as the relations with unexpected inputs could be better explained with the use of this approach. Ultimately, artificial neural networks can assist in a better way to make convoluted decision with increased predicting power of financial estimations and incorporating market uncertainties. Artificial neural networks could be regarded as rational replacement to traditional conformist approaches engulfed in strict limitations. As artificial neural networks incorporated many interrelationships, it enables the schemer to quickly and easily model the entire process which is far too complex for the traditional methods to apprehend and integrate. Particularly, two ratios i.e. information ratio and sharp ratio demonstrated the overwhelming strength of artificial neural networks be to the best possible choice and most appropriate option for portfolio optimization.

References
The Paradox of Managerial Dividend Policy in Corporate Malaysia

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ARTICLE DETAILS

ABSTRACT

The prime objective of this paper is to survey the managers of Bursa Malaysia listed non-financial firms and to divulge their views regarding the significance of various potential factors that may affect dividend decisions. In addition to that, we are also interested in highlighting that how managerial perception about the importance of these factors varies from country to country. Our next objective is to know the level of importance, Malaysian managers give to dividend processes and pattern, firm value. Dividend policy (DP) and residual dividend policy (RDP). Finally, we are interested in measuring the level of support that Malaysian managers provide for different justifications for the payment of dividends. Survey instrument including a cover letter was mailed to chief finance officers (CFO) and finance managers of 493 Bursa Malaysia listed firms in October 2017. In the cover letter, a request was made to all respondents that in case of their non-involvement in dividend decision the letter must be forwarded to concerned authority involved in dividend decisions. The response rate of the current study is 40.09 percent (202 out of 493 firms). The study has used a mail survey of Bursa Malaysia listed non-financial firms that have paid at least one cash dividend during the period of 2013-2016 as a primary means of collecting data. No single pattern in rankings of factors among different countries has emerged. However, like their American, Canadian and Indonesian counterparts, According to Malaysian managers, dividend decisions have a significant effect on firm value. Although, a great deal of support has already been established with all dividend theories, however clientele and agency theory has proven to be the strongest one.

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Keywords
Devolution Dividend Policy, Firm Value, Malaysia.

JEL Classification:
D20, D21, D22

1. Introduction
The dividend payment, leverage, and cash holding decisions are at the heart of agency theory. Throughout the previous century the corporate finance has been confronting the issues related to principle-agent conflicts and the possibilities regarding alignment of interest, however scientists have failed to work out any single solution so far. Dividend policy (DP) is one of the most important issues in modern financial literature. It has turned out to be one of the most interesting and extensively researched topics among all. DP is regarded as one of the most debated
subjects in finance among researchers. This situation has led to the emergence of a number of researchers who focused their attention to explicate different theoretical explanations about dividend policy. In previous studies, the majority of the empirical work did not have sufficient explanations regarding the DP matters and corporate values in firms (Baker, Kilincarslan & Arsal, 2017). DP can be defined as a company’s policy which determines the amount of dividend payment and also the amount of retained earnings, a firm wants to invest back in a new business project. Though researchers have used a variety of theoretical models such as bird in hand theory, signaling theory, tax and clientele effect, and agency theory and employed different normative and idiosyncratic approaches to determine the factors which affect the dividend policy. However, still, they are unable to answer how firms decide between highly taxed capital gains and cash distributions.

Lintner (1956) carried out a survey research and concluded that the managers of the companies considered three factors to be most crucial while making dividend decisions. Firstly, they decided a target payout ratio by agreeing upon the distribution of the portion of their income after tax. Secondly, the dividend pattern and payout ratio had to be dynamic and adjustable to change in income. Lastly, Managers in Linter surveys were more concerned about the changes in divided rather than leveraging the dividends. Recently, Felimban, Floros, & Nguyen (2018) argued that the DP of the company should be formulated by keeping in mind the following criterion a) investment opportunities, b) degree of financial leverage, c) stability in earning, d) the alternative sources of Capital and the stakeholders’ characteristics.

The current study is founded on the counter arguments broached by the Miller and Modigliani (1961), in which they claimed that the DP has no effect on the market value of the firm. In an effort to explore the managerial views for dividend policy, the current study has employed a survey method and has visited the managers of Malaysian non-financial firms listed on Bursa Malaysia. Previous studies on the issues of dividend policies have already covered many aspects of dividends such as the effects of dividend payout on firm value, reasons for firms paying dividends, the determinants of DP and dividend trends and many other aspects. In addition, there were various characteristics in firms and markets that have been used in earlier research and have become important factors which have high potential in determining the DP of a firm.

The current research is carried out to achieve the following research objectives. Level of importance by Malaysian non-financial firms to different factors that explain a firm’s dividend decisions. Secondly, we have also compared the level of agreement to these factors by Malaysian managers with those of their occupational community members from other countries. In addition to that, this study highlights the perspective of Malaysian manufacturing firm’s managers regarding dividend process, pattern, firm value and RDP. Finally, we are interested in measuring the level of support that Malaysian managers give to various explanations for paying dividends.

2. Literature Review
The issue came on the surface, after the proposition of irrelevance hypothesis by MM in 1958, in which it was proposed that in a perforce market with no cost, the dividend decisions are irrelevant to firm value. Later many researchers (Lasfer, 1995; Woolridge & Ghosh, 1985; Soter et al., 1996; Bell & Jenkinson, 2002; Basheer et al., 2014; Shi et al., 2017; Basheer et al., 2019) have shown a disagreement with MM, and argued that in real world, because of opportunity cost, transaction cost, agency cost, and other costs the corporate financial decisions including dividend has a significant impact on the firm value. In line with the conclusion of Fama and French (2001), Baker and Wurgler (2004b) found that firms now have a tendency to pay fewer dividends.

Baker and Riddler (2004) further clarify the nature of the dividend disappearance supported by Fama and French (2001). They showed that although the number of dividend payers was reduced by 50%, total dividend payout by industrial firms has in fact increased between 1978 and 2000. They pointed out that dividends have become more concentrated among a few players where 81.8% of dividends are distributed by the first 100 dividend paying firms. The authors conclude that dividend patterns are changing but not disappearing. They argued that the decreasing trend of dividend-paying firms is primarily caused by the firms distributing small dividends. Therefore, the impact of nonpayment by such firms is not felt by the ‘dividend supply’. The finding shows that the dividend payout by the large firms continued to increase and it was argued further that this increase even nullified the effect of non-payment by the small firms. DeAngelo et al. (2004) also provide strong evidence for Lintner's model as findings revealed that dividend increase comes from earnings’ increase; therefore, dividend concentration also follows earnings concentration. Unlike the previous studies which have excluded financial and utility firms due to their
unique regulatory structure, DeAngelo et al. (2004) demonstrate that the number of dividend payers in these firms has increased by 9.5% over the period studied. This implies that reduced propensity to pay dividends is limited to industrial firms.

Lintner (1956) documents that earnings and previous dividends are the most important determinants of dividend payout decisions. Empirical studies have provided further evidence on the importance of these variables. Earnings are positively and significantly related to dividends (Ameer, 2007). Chemmanur, He, Hu, and Liu (2010) argued that firms are reluctant to reduce dividend levels even when there are insufficient internal funds to finance good investment opportunities. They documented that past dividend is positively and significantly related to current dividend policy. This finding was confirmed by Bradford et al. (2013). The relationship between past dividend and the current dividend has been used to explain the concept of dividend smoothing by Lintner (1956). Thus, dividend smoothing involves maintaining a relatively constant rate of dividend from one period to another. Studies have shown that there are costs associated with dividend smoothing as some managers forego profitable investments or even seek external financing in order to maintain stable dividend levels (Zurigat & Gharabeh, 2011).

Cash flow is another determinant of the dividend. On one hand, prior studies have confirmed the free cash flow hypothesis by showing that failure to pay out free cash flow as dividends results in its diversion or misuse. Thus, dividend payout increases with higher levels of free cash flow. From another perspective, Adelegan (2003) argued that cash flow is superior to earnings in explaining dividends due to two reasons: the possibility of manipulating the accruals component of earnings. Therefore, cash flow is reported to be positively related to dividends.

In answer to the question, which factors affect the dividend policy, the corporate finance literature has developed and used different theories. The detail of these theories is given in the next section.

2.1 Dividend Theories
As previous studies have established that the researchers have been using different theoretical models in identifying different factors which explain the firm dividend decisions. Notwithstanding, there are many theoretical models used to answer these questions. However, we have discussed the four widely used theories which are bird in hand theory, agency theory, signaling theory, and tax preference theory.

2.1.1 Bird-in-Hand Theory
The bird hand explanation of dividend supports an investor’s preference regarding continuous dividend and in contradiction to the tax theory it argues that the cash in hand through the dividend is better than the capital gains through re-investing (Baker et al., 2017). The theory was given by Gordon (1962) and is based on a famous proverb that a bird in hand is better than the two in bushes.

2.1.2 The Signaling Explanation
Signaling theory was pioneered by Akerlof (1970) and generalized by Spencer (1973). Their work forms the basis for models later developed on signaling theory of dividend (also referred to as the signaling hypothesis). The prominent signaling models were developed by Bhattacharya (1979). The signaling theory of dividend proposed that dividend announcement relay information to investors regarding the firm’s future prospects (Baker et al., 2017).

2.1.3 Tax and Clientele Effects
Dividend clientele refers to a group of investors with a preference for a particular DPthat best suits their interests (Qammar et al., 2017). This theory explains the fact that the different groups of investors have preferences for the varying policies of a company and the tax policies of countries. As a result, investors alter their shareholdings in response to changes in company policies and this has an effect on the share prices (Renneboog & Szilagyi, 2015).

2.1.4 Agency Theory
Agency Theory of Dividends is a theory that is concerned with resolving problems that emerge from agency relationships (Basheer, 2014). Jensen and Meckling (1976) in their pioneering work of agency theory of dividends showed that agency costs arise from the differing objectives of the managers and the shareholders. Easterbrook (1984) and Jensen’s (1986) models theorize that dividends play an important role in mitigating the agency issues between managers and the shareholders.

2.1.5 Maturity Hypothesis
Mueller (1972) propounded the life-cycle theory of the firm. The life cycle theory of dividend explains that the corporate payout policy of a firm varies over the different stages of its financial life cycle (Fama & French, 2001). The theory extends the explanation Jensen (1986), who proposed the free cash flow hypothesis. Based on the life cycle theory, availability of free cash flow for onward disbursement to shareholders as dividends depends on the stage a firm has attained in its financial life cycle.

2.1.6 Catering Theory
This theory gave momentum to the behavioral arguments used to explain dividend decisions by Shefrin and Statman (1984). According to Shefrin and Statman (1984) investor’s preference for dividends by putting up reasons why dividend and capital gains cannot be regarded as perfect substitutes. Baker and Wurgler (2004a) hypothesized that payment of dividend is influenced by investor's demand for the dividend.

2.1.7 Linter Model
This hypothesis which establishes the importance of dividend stability derives from the survey evidence provided in the seminal work of Lintner (1956). Lintner's (1956) findings revealed that firms are largely concerned about maintaining stable dividend levels.

3. Research Design
3.1 Survey Instrument
The study is among the pioneering studies carried out to explore the managerial perspective of Malaysian firms. To achieve the research objectives the study has employed the survey questionnaire developed and used by Baker et al., (2012) recently confirmed by Baker et al., (2017). The third section is examining the level of agreement is amended by adding three more explanation and amended is followed by the recent work of Baker et al., (2017). The instrument is composed of three sections in the first section the managers are asked to present their views on the significance (which is measured from 0=none to 3=very high ) of 22 factors which affect the formulation of dividend policy. The second section is managers of Malaysian firms are requested to presents their level of agreement on issues such as dividend process, dividend pattern, dividend, and firm value and residual DP involving dividend policy. In the third and final section, the managers of Malaysian manufacturing firms have shown their level of agreement with the different theoretical explanation given for dividend payment policy. For the sake of collection of data, we have used the mail survey.

3.2 Sample and Response Rate
Initially, all manufacturing firms listed on the Bursa Malaysia were chosen as a sample of the study. However, a later firm with at least two dividends in the last three years are selected as the final sample of the study, so the final sample is comprised of 493 firms. The data of dividend payment is collected from the firm’s annual reports. Survey instrument including a cover letter was mailed to chief finance officers (CFO) and finance managers of 493 KSE listed firms in October 2017. The response rate of the current study is 40.09 percent (202 out of 493 firms).

4. Results and Discussion
4.1 Respondents and firm profile
To know the profile of respondents and their firms six background questions were asked. When asked about the most influential personality in firm’s DP formulation, 89 percent replied he is CEO .78 percent of the firms are paying dividend annually.53 percent firms has an explicit payout ratio.94 percent of the respondent are actively involved in DP development and 66 percent respondent are finance managers.

4.2 Determinants of DP
The prime objective of the current study is to identify the level of importance given by the Malaysian managers to the factors which determine the DP in the Malaysian firms. We have employed the t-test to measure the mean difference in the responses of managers. The result of the study is reported in table 1. It is evident from the findings of the study that, the Malaysian managers have considered the stability of earning as topmost consideration while the liquidity constraints of the firms and the predictability of future cash flow as second most important. These results are in line with propositions that the liquidity and uncertainty in cash flows arising because of economic turbulence are the most important factors which affect the dividend decisions of Malaysian managers. These findings of the study are consistent with previous findings Baker et al. (2017), Baker et al (2012), and Baker et al. (2010) Basheer (2019).
The second objective of the current study is to compare the importance of these factors given by Malaysian managers with the manager of other countries. The result of the current study is compared with the studies carried out on the sample of Turkish, USA, Canadian and Indonesian firms. Though Malaysian managers have shown a great deal of agreement with their occupational community members working in Turkish, USA, Canadian and Indonesian firms. However, there is no single pattern emerges. Malaysian Managers ranked F1, F14, F11, F3, F2, and F10 consecutively at the top. But the ranking of F4, F8, and F5, F9 is lower i.e Malaysian manager consider agreeing with the explanation provided by Linter’s (1956) behavioral model, as majority investors study has shown a great deal of agreement with the fact that in the real market the dividend decision making, and for this firm must have a target payout ratio. 

Table 1: The level of importance given by Malaysian manufacturing firms mangers to the factors affecting the dividend policy in corporate Malaysia (DP) 

<table>
<thead>
<tr>
<th>Level of Importance</th>
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</table>

4.3 Managerial issues Related to Dividend

The current study is to examine the Malaysian manager's views regarding dividend policy, dividend patterns, RDP, and firm value. The findings are reported in Table 2. The result reported in Table 2 highlights that the Malaysian managers are agreeing with the explanation provided by Linter’s (1956) behavioral model, as majority investors agreed on the fact that a stable investor will rate stable dividends more than the stable payout. Similarly, it is evident from the results that a stream of the dividend is preferable in the eyes of investors and managers consider it most important while deciding about the dividend. The 87 percent of respondents are agreed on the fact that the stable investor will rate stable dividends more than the stable payout. Similarly, it is evident from the results that a stream of the dividend is preferable in the eyes of investors and managers consider it most important while deciding about the dividend. The 87 percent of respondents are agreed on the fact that the stable investor will rate stable dividends more than the stable payout.

In panel 2, results related to dividend pattern are discussed, the results are positive and significant, which indicates that the dividend pattern has a significant impact on the dividend decisions of the managers of the Malaysian listed non-financial firms. In Panel 3 the results related to the impact of DP on firm value are reported. The result of the study has shown a great deal of agreement with the fact that in the real market the dividend decisions have a
significant impact on the firm value of Malaysian listed non-financial firms. In Panel 4 the result related to residual DP are reported. The findings of the study highlight the fact that according to the Malaysian Managers the investment opportunities, is significantly linked with the financing decisions and ultimately affect the firm dividend decision.

Table 2: Level of Agreement shown by the Malaysian Manufacturing Firms Managers on Issues related to Dividend Policy

<table>
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<th>Mean</th>
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<th>T-VALUE</th>
<th>Mean</th>
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<td>Panel 3</td>
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<td>3.394***</td>
<td>1.0700</td>
<td>I13</td>
<td>3.326***</td>
<td>1.0300</td>
</tr>
<tr>
<td>I5</td>
<td>2.402***</td>
<td>0.8100</td>
<td>I15</td>
<td>2.486***</td>
<td>0.8300</td>
</tr>
<tr>
<td>I4</td>
<td>2.026***</td>
<td>0.5300</td>
<td>I11</td>
<td>1.312***</td>
<td>0.3600</td>
</tr>
<tr>
<td>Panel 2</td>
<td>Dividend Pattern</td>
<td></td>
<td>Panel 4</td>
<td>RDP</td>
<td></td>
</tr>
<tr>
<td>I1</td>
<td>4.628***</td>
<td>1.3400</td>
<td>I14</td>
<td>4.090***</td>
<td>1.4500</td>
</tr>
<tr>
<td>I2</td>
<td>4.292***</td>
<td>1.2600</td>
<td>I12</td>
<td>2.142***</td>
<td>0.5100</td>
</tr>
</tbody>
</table>

4.4 The Reasons for Paying Dividends
The endmost objective of the current study is to explore, the agreement of Malaysian managers with the theoretical exploitation. The results are reported in table 3.

The results of the panel A are indicating that Malaysian managers consider bird in hand explanation as for the logical explanation behind dividend decisions. Whereas the results of the second section provide support to signaling theory. According to the signaling theory, the investors consider dividend as a signals to distinguish a performing, underperforming and non-performing firms. Meanwhile, according to Malaysian Managers, the dividend payment are key determinants of the stock price. The investor uses these signals to distinguish between a performing and non-performing firm. Malaysian managers consider dividend as an important determinant of stock price (I19, I20). Malaysian firm managers consider dividend decisions as a signal of firm future decisions (I18, I17). The results of I22 and I21 indicate that Malaysian managers have placed moderate importance on information asymmetry. Responses of I24 show that Malaysian managers consider a tax on cash dividend as important determents of dividend policy. Malaysian managers have placed a moderate agreement with I25 which means that Malaysian investors generally prefer to invest in the firm who’s DP supports their tax preferences. Overall results (I24, I25) reveal the fact that managers of KSE firms are aware of clientele effect, and the significant results are consistent with Kester et al. (1995-1996). The results reported in panel D (I27) showing the agreement with agency. However, disagreement has been shown with the notion that dividend payments force managers to increase external financing (debt or equity).

The results of the Panel E are providing support to the intermodal which argues that the investors put a high premium on firms that have a stable dividend policy, and this is reflected in the higher valuation of the firm by the market. Similarly, the result of section F is showing consistency with the maturity hypothesis which is based on the life Cycle theory. Based on the life cycle theory, availability of free cash flow for onward disbursement to shareholders as dividends depend on the stage a firm has attained in its financial life cycle. There are different indicators of the stage of a firm in its financial lifecycle. Finally, the Malaysian managers seem agreed with the explanation of the catering theory.

Table 3: Level of Support that Malaysian Manufacturing Firms Managers provide to Various Theoretical justification for Paying Dividends

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>t-Value</th>
<th>Mean</th>
<th>Sr. No.</th>
<th>t-Value</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel A</td>
<td>Bird in Hand Theory</td>
<td></td>
<td>Panel D</td>
<td>Agency Theory</td>
<td></td>
</tr>
<tr>
<td>I6</td>
<td>4.998***</td>
<td>1.1900</td>
<td>I27</td>
<td>4.208***</td>
<td>1.2400</td>
</tr>
<tr>
<td>Panel B</td>
<td>Signaling Theory</td>
<td></td>
<td>I26</td>
<td>-0.840***</td>
<td>-0.200</td>
</tr>
<tr>
<td>I20</td>
<td>5.712***</td>
<td>1.3600</td>
<td>Panel E</td>
<td>Linter Partial Adjustment Model</td>
<td></td>
</tr>
<tr>
<td>I19</td>
<td>5.250***</td>
<td>1.2500</td>
<td>I30</td>
<td>4.023***</td>
<td>1.143</td>
</tr>
</tbody>
</table>

202
5. Conclusion
The current research is carried out to achieve the following research objectives. Firstly, the level of importance by Malaysian non-financial firms to different factors that explain a firm’s dividend decisions. Secondly, we have also compared the level of agreement to these factors by Malaysian managers with those of their occupational community members from other countries. In addition to that, how the manager of Malaysian manufacturing firm views the dividend process, pattern, firm value and RDP. Lastly, we are also keen in knowing how the managers of non-financial Malaysian firms view the theoretical explanation of paying dividend. In author knowledge, this is the first study to explore the managerial view of dividend policy. The first objective of this study deals with the identification of factors, which for Malaysian managers are most important in formulation firm’s dividend policy. This study has provided support to the real market hypothesis (Baker et al., 2017), and argued that the real market the dividend decisions have a significant impact on the firm value of Malaysian listed non-financial firms. The Malaysian mangers has provided support to the hypothesized result and confirmed that the investment opportunities, are significantly linked with the financing decisions and ultimately affect the firm dividend decision and firm value. According to Malaysian managers, Bird in hand and Signaling theory are most viable explanation of deterring a dividend policy. The Malaysian mangers are agreed that there are different indicators of the stage of a firm in its financial lifecycle and provided support to catering theory. The study has employed a survey-based method and visited the managers of Malaysian non-financial firms listed on Bursa Malaysia. The results are shown in table 1, 2 and. Results indicate that Malaysian manager has shown a great deal of agreement with the academic community.

References
Women Participation under Devolution of Power Plan 2000: Issues and Challenges

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3 Prof., Department of Political Science, The Islamia University of Bahawalpur, Pakistan

ARTICLE DETAILS

<table>
<thead>
<tr>
<th>History</th>
<th>ABSTRACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revised format: February 2019</td>
<td>This paper is a discussion about women participation in local governments established under devolution of power plan (DOPP) 2000 promulgated by a military ruler Pervez Musharaf. According to this draft, women were given 33% representation in local councils. The paper presents the existing statistics of women participation in local governments at provincial and districts level in Pakistan for a comparative analysis. The study has found that issues and challenges regarding women participation still do exist which are recommended to overhaul after a comprehensive study of previous research work in this area. Recommendations have been offered for enhancing women’s political participation and resulting women empowerment in Pakistan based on the analysis of data and historical discourse. The study has implications of academic signification for research scholars and practical relevance for policy makers interested in uplifting socio-political status of women in Pakistan.</td>
</tr>
<tr>
<td>Available Online: March 2019</td>
<td></td>
</tr>
</tbody>
</table>

Keywords
Women Participation, local Government, Women Empowerment, Pakistan

JEL Classification:
O20, O21

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Corresponding author’s email address:

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1. Introduction
Local government means governance at grass root level whether in the hands of men or women. Pakistan has observed different types of governing systems particularly democratic and military rules but decentralization or local governments have never been encouraged in Pakistan. Ayub was the initiator of local government system who introduced “Basic Democracies System 1959” followed by “Local Government System of 1979” enforced by Zia. Musharaf promulgated “Devolution of Power Plan (DOPP) 2000” and strengthened the system of local governments in terms of representation and development. Currently provinces have different local government systems with different legislations.

Women participation equal to men has paramount importance for a healthy society and future generations. Short history of local governments in Pakistan discourages women participation. There is nothing found practically about role of women in these systems of local governments. Legislators made nominal efforts to enforce women’s concerns in process of decentralization. Despite the fact that state religion and constitution encourage women participation and empowerment, political authorities remained reluctant to enhance it at grass root level.
Islam (state religion of Pakistan) is complete code of life and addresses the equality of human beings. Allah calls both men and women which means that both are equal in terms of all kinds of rights as mentioned in Surah Al-Ahzab in these words:

“For Muslim men and women, for believing men and women, for devout men and women, for true men and women who are patient, for men and women who humble themselves, for men and women who give in charity, for men and women who fast, for men and women who guard their chastity, and for men and women who engage much in Allah's praise - For them all has Allah prepared forgiveness and great reward.” (Al-Ahzab 33:35)

Role of women in grass root politics is a globally discussing issue. International human rights and political organizations are waving the flags of women rights in local, national and international politics. Charter of United Nations Organization 1945 declares that all mankind have equal social, economic and political rights in spite of different entities i.e. gender, race, color, religion and region. Under the charter of UNO, there are several commitments, agreements, laws, conferences, plan of actions and conventions protecting women political rights. Vienna Declaration and Program of Action; International Conference on Population and Development; Beijing Declaration and Platform for Action; Millennium Development Goals and United Nations Conference on Sustainable Development are working global commitments that are source of security for women political rights (United Nations Human Rights High Commissioner, 2014).

Developing countries focus on encouraging the trend of women participation in matters of governance. Growing political role of women is significant change of 21st century. According to ranking of 128 states developed by The Inter-Parliamentary Union (IPU) in 2005 Sweden, Rwanda and Norway increased women political participation to 45.3%, 48.8% and 38.2% in all levels of government. Scandinavian states are observing highest number in terms of women participation followed by American and European countries. Asia and Africa are improving their system of political participation while Arab and Pacific regions are at lowest ebb in this regard (Jabeen & Iqbal, 2010).

Our society is patriarchal in nature and not ready whole heartedly to get participate the women in political process. More than 50% of country’s population is comprised of women but they are deprived of their basic political rights. Article 25(2) of the constitution enforces rights for women equal to men and establishes the parameters of legislation in this regard. Issue of legislation is one of the major concerns in subject problem collided with several other socio-political hurdles.

Pakistan’s three constitutions propagated reserve seats for women from 3 to 10%. Article 44(2), of 1956 constitution gave 3% quota for women i.e. 10 seats. Constitution of 1973 also reserved 10 women seats. In 1985 these seats were increased to 20. In 1997-1999, this quota reduced to a lowest level i.e. 3.2% in lower house (National Assembly), 2.4% in upper house (Senate) and 0.4% in Provincial Assemblies. Women were not given representation in Basic Democracy’s System of 1959 and nominal number of women seen under Local Government System of 1979 (Tabassum, Afzal, & Tabassum, Shifting Trends of Women’s Participation in Local Government in Pakistan: A Study with Special Focus on Sindh Province, 2008).

First time in the constitutional history of Pakistan, Devolution of power plan (DOPP) 2000 enacted by Musharaf brought remarkable political representation and development for women under the guidelines of National Reconstruction Bureau, a state think tank for devolution of powers. Government conducted two elections i.e. 2001 and 2005 under this constitutional draft. A remarkable number of women contested these elections and launched inclusive election campaigns throughout the Pakistan. Women were the hot issue discussing in election debates. Women participants succeeded to capture a good number of reserved seats.

Execution of women participation in local governments is a single characteristic regarding women empowerment in mainstream politics but there are several issues came into sight after observing DOPP 2000. Though 33% representation in all tiers of district government i.e. union, tehsil and district councils but they felt difficulties in performing their assigned roles owing to male domination, low literacy rate and near to the ground political experience of women. DOPP 2000 was an effort to enable the women to get participate them in political process but their absence in policy-making, financial management and other socio-political matters raised the questions on practice of women participation. The present study aims to explore the extent to which DOPP 2000 has fulfilled the
requirements of women’ political participation in local governments, and what are the associated issues and challenges in this regard.

2. Research Methodology
This research is descriptive and historical in nature. Qualitative approach with secondary sources of data have been applied to complete this research work.

3. Literature Review
Democratic and military rulers have never prioritized women participation in local governments. Military regimes are known as upholder and initiators of local governments but Ayub and Zia tried their best to keep women out of local government system and legalized only 2% women representation. Begum Nasim Wali Khan as opposition leader in NWFP voiced strongly and publicly for women representation in local councils but not materialized. A few women were seen in local councils just because of their strong political background (Khattak, 1996).

There were several hurdles in the way of women participation in local governments but most prominent were religious and tribal. Religious and tribal leadership were against women participation on the grounds of their traditions. DOPP 2000 provided 33% representation to women in all tiers of local government and there is not any religious or tribal impediment in the way of women participation (Tabassum, Afzal, & Tabassum, 2008).

Aurat Foundation publicized through its report entitled as “Citizens campaigns for women participation in local government elections 2001 and 2005” that, Punjab captured top ranking in women participation followed by Sindh. Balochistan and NWFP (KPK) stand at 3rd and 4th positions respectively. Despite of this ranking women participation and seat-winning ratio in all provinces is valuable (Aurat Foundation, 2008).

Women participation was given a reasonable priority in DOPP 2000 but it remained a nightmare in the context of role in policy making/implementation, capacity building, allocation of financial resources and management at district level (Chaudhry A. G., 2009).

Women were not given shares in citizen community board and public safety commissions despite the fact that they were entitled to get representation with the ratio of 33% (Haroon, 2010).

A discussable political participation of marginalized groups particularly women in local government system enhanced the opportunities for them to access state services and serve the state (Husain, 2012).

Almost all district nazims believed that DOPP 2000 was initiator of local governments in real sense and implemented the article 32 of the constitution according to its spirit, which states that state government should encourage the system of local government with special participation of women, workers and peasants (Khan & Mirza, 2013).

However, women were given 33% representation in local government bodies but their attendance in sessions of Union, Tehsil and District Councils was next to nothing because women seats were filled just to win the women seats but not to represent him in councils. They were missing represented in practical politics at grass root level and given nothing in management of district governments (Chaudhry, Ahmed, & Farooq, 2014).

3.1 History of Women’s Participation in Pakistan’s Local Government System
History of local government system starts from 1958 and six elections of local bodies have held until now. Only military rulers prioritized the local government system and every ruler tried to keep women out of local government system. Nominal representation has been given to this marginalized group in every regime.

Account of women’s role in local government starts with the beginning of local government system. Women were given 2% during Ayub’s Basic Democracy’s system 1959 and Zia’s Local Government System 1979. It was increased to 10% during Nawaz Sharif’s first era 1990-93. In the 1998 elections of local governments, women reserved seats were, 25.8% in Balochistan, 12.7% in Punjab, 2.9% in NWFP and 23% in Sindh but elections were held in Balochistan and Punjab only. Military government of Musharaf introduced Devolution of Power Plan in 2000 under which two local body’s elections were held in 2000 and 2005. Under this plan, 33% seats reserved for women (Jabeen & Iqbal, 2010).
3.2 Analysis of women Participation in Local Government under Devolution of Power Plan 2000

DOPP 2000 gave a good number of women seats in the system of local governments, which is never observed before that. Women representation never crossed double figure. First time in history, women were given 33% representation in all tiers of district government. Women participated in local government elections of 2001 and 2005 under this legal draft and captured most of the seats reserved for them. Punjab is at top position with 97.7% and 99.4% in 2001 and 2005 elections respectively with the ranking sequence of Punjab (1), Sindh (2), Balochistan (3) and NWFP (4).

3.3 Punjab

Composition of Punjab during the period of 2001-10 is as follows:

Table 1

<table>
<thead>
<tr>
<th>Population</th>
<th>Area</th>
<th>Districts</th>
<th>Tehsils</th>
<th>Union Councils</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 million</td>
<td>205344 km2</td>
<td>35</td>
<td>118</td>
<td>3445</td>
</tr>
</tbody>
</table>

Punjab is richest in terms of fertile lands, literacy rate, institutions and political awareness. Literacy rate in Punjab is 61% and 52% portion of women population is educated. In large number, women from Punjab participated and succeeded in local government elections held in 2001 and 2005. Seat-winning ratio of women in Punjab was highest among the four provinces.

Table 2

<table>
<thead>
<tr>
<th>Punjab</th>
<th>District</th>
<th>Number of UCs</th>
<th>Women General Seats</th>
<th>Women Labor/Peasants Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attock</td>
<td>72</td>
<td>288</td>
<td>281</td>
<td>144</td>
</tr>
<tr>
<td>Bahawalpura</td>
<td>107</td>
<td>428</td>
<td>421</td>
<td>214</td>
</tr>
<tr>
<td>Bahawalnagar</td>
<td>118</td>
<td>472</td>
<td>463</td>
<td>236</td>
</tr>
<tr>
<td>Bhakar</td>
<td>42</td>
<td>168</td>
<td>164</td>
<td>84</td>
</tr>
<tr>
<td>Chakwal</td>
<td>68</td>
<td>272</td>
<td>269</td>
<td>136</td>
</tr>
<tr>
<td>D. G. Khan</td>
<td>59</td>
<td>236</td>
<td>232</td>
<td>118</td>
</tr>
<tr>
<td>Faisalabad</td>
<td>289</td>
<td>1156</td>
<td>1142</td>
<td>578</td>
</tr>
<tr>
<td>Gujrat</td>
<td>117</td>
<td>468</td>
<td>466</td>
<td>234</td>
</tr>
<tr>
<td>Gujranwala</td>
<td>188</td>
<td>752</td>
<td>748</td>
<td>376</td>
</tr>
<tr>
<td>Hafizabad</td>
<td>42</td>
<td>168</td>
<td>167</td>
<td>84</td>
</tr>
<tr>
<td>Jhang</td>
<td>128</td>
<td>512</td>
<td>505</td>
<td>256</td>
</tr>
<tr>
<td>Jehlum</td>
<td>53</td>
<td>212</td>
<td>210</td>
<td>108</td>
</tr>
<tr>
<td>Qasur</td>
<td>113</td>
<td>452</td>
<td>450</td>
<td>226</td>
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<tr>
<td>Khanewal</td>
<td>100</td>
<td>400</td>
<td>400</td>
<td>200</td>
</tr>
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<td>Khushab</td>
<td>51</td>
<td>204</td>
<td>200</td>
<td>102</td>
</tr>
<tr>
<td>Laiyah</td>
<td>44</td>
<td>176</td>
<td>172</td>
<td>88</td>
</tr>
<tr>
<td>Lahore</td>
<td>150</td>
<td>600</td>
<td>598</td>
<td>300</td>
</tr>
<tr>
<td>Lodhran</td>
<td>73</td>
<td>292</td>
<td>292</td>
<td>146</td>
</tr>
<tr>
<td>Mianwali</td>
<td>56</td>
<td>224</td>
<td>212</td>
<td>112</td>
</tr>
<tr>
<td>Mandi Bahaudin</td>
<td>65</td>
<td>260</td>
<td>258</td>
<td>130</td>
</tr>
<tr>
<td>Muzaifargarh</td>
<td>93</td>
<td>372</td>
<td>350</td>
<td>186</td>
</tr>
<tr>
<td>Multan</td>
<td>126</td>
<td>504</td>
<td>500</td>
<td>258</td>
</tr>
<tr>
<td>Narowal</td>
<td>74</td>
<td>296</td>
<td>295</td>
<td>148</td>
</tr>
<tr>
<td>Nankana Sahb</td>
<td>68</td>
<td>136</td>
<td>126</td>
<td>136</td>
</tr>
<tr>
<td>Okarra</td>
<td>114</td>
<td>456</td>
<td>446</td>
<td>228</td>
</tr>
<tr>
<td>Pakpatan</td>
<td>63</td>
<td>252</td>
<td>250</td>
<td>126</td>
</tr>
<tr>
<td>Rajanpur</td>
<td>44</td>
<td>176</td>
<td>174</td>
<td>88</td>
</tr>
</tbody>
</table>
Women from Punjab showed first-rate commitment to participate in local government elections. In most of the districts, women contested the elections without any fear. Most important thing is that, women from Southern Punjab won the seat at equal ratio with women from Central and Northern Punjab. Filling of peasants and labor seats is in greater ratio than that of general seats. In one of the elections of 2001 and 2005, 100% general seats were filled in Attock, Sialkot, Khanewal, R. Y. Khan, Rawalpindi and Faisalabad districts while peasant/labor seats in Toba Tek Singh, Rajanpur, Pakpatan, Narowal, Mandi Bahaudin, Lahore, Qasur, Hafizabad, Gujrat and D. G. Khan district touched the same figure.

3.4 Sindh
Composition of Sindh during the period of 2001-10 is as follows:

<table>
<thead>
<tr>
<th>District</th>
<th>Number of UCs</th>
<th>Women General Seats</th>
<th>Women Labor/Peasants Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2001</td>
<td>2005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Filled</td>
</tr>
<tr>
<td>Badin</td>
<td>49</td>
<td>196</td>
<td>92</td>
</tr>
<tr>
<td>Dadu</td>
<td>80</td>
<td>320</td>
<td>104</td>
</tr>
<tr>
<td>Gkotki</td>
<td>35</td>
<td>140</td>
<td>84</td>
</tr>
<tr>
<td>Haiderabad</td>
<td>102</td>
<td>405</td>
<td>102</td>
</tr>
<tr>
<td>Jacobabad</td>
<td>78</td>
<td>308</td>
<td>80</td>
</tr>
<tr>
<td>Jamshoro</td>
<td>28</td>
<td>56</td>
<td>55</td>
</tr>
<tr>
<td>Kashmor</td>
<td>37</td>
<td>74</td>
<td>74</td>
</tr>
<tr>
<td>Khairpur</td>
<td>76</td>
<td>304</td>
<td>152</td>
</tr>
<tr>
<td>Larkana</td>
<td>80</td>
<td>320</td>
<td>88</td>
</tr>
<tr>
<td>Matyari</td>
<td>19</td>
<td>38</td>
<td>37</td>
</tr>
<tr>
<td>Mirpur Khas</td>
<td>64</td>
<td>222</td>
<td>82</td>
</tr>
<tr>
<td>Noshehro Feroz</td>
<td>51</td>
<td>204</td>
<td>102</td>
</tr>
<tr>
<td>Nawabshah</td>
<td>51</td>
<td>204</td>
<td>102</td>
</tr>
<tr>
<td>Qambar</td>
<td>40</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Sanghar</td>
<td>59</td>
<td>232</td>
<td>110</td>
</tr>
<tr>
<td>Shikarpur</td>
<td>47</td>
<td>188</td>
<td>102</td>
</tr>
</tbody>
</table>

Sindh province has 56% literate population and 47% portion of women population is educated. Sindh is officially divided into rural and urban areas varying men-women literacy rates. Rural women of Sindh is politically less aware whereas and unable to take political decisions. Men due to patriarchical society carry out most of political decisions and political practices.
Ratio of winning seats was different but election environment was same for women in rural and urban areas of Sindh. Dadu, Haiderabad and Sanghar districts gave 100% general seats to women whereas in Gkotki and Mithi districts women won 100% peasants/labor seats. Most significant thing was that, women captured more seats in Mithi district (underdeveloped) than Karachi (more developed). Seat capturing ratio in Sindh was not much different from Punjab despite of better literacy rate, infrastructure and political environment of the later.

3.5 NWFP (KPK)

Composition of NWFP during the period of 2001-10 is as follows:

Table 5

<table>
<thead>
<tr>
<th>Population</th>
<th>Area</th>
<th>Districts</th>
<th>Tehsils</th>
<th>Union Councils</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.2 million</td>
<td>74521 km2</td>
<td>24</td>
<td>72</td>
<td>954</td>
</tr>
</tbody>
</table>

NWFP is a tribal society and religious elements in socio-political sectors are dominant. Women are given limited opportunities in all sectors due to which women literacy rate is 35% along with overall i.e. 50%. In tribal areas of NWFP, DOPP 2000 faced criticism for women share in local governments. Women also confronted the difficulties in this way but election results depicted a good picture of women participation in local government elections.

Table 6

<table>
<thead>
<tr>
<th>District</th>
<th>Number of UCs</th>
<th>Women General Seats</th>
<th>Women Labor/Peasants Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abotabad</td>
<td>46</td>
<td>184 182 102 98</td>
<td>92 82 102 98</td>
</tr>
<tr>
<td>Banu</td>
<td>40</td>
<td>160 88 98 92</td>
<td>80 42 98 88</td>
</tr>
<tr>
<td>Batgram</td>
<td>20</td>
<td>80 4 40 20</td>
<td>40 2 40 20</td>
</tr>
<tr>
<td>Buner</td>
<td>27</td>
<td>108 105 54 51</td>
<td>54 50 54 50</td>
</tr>
<tr>
<td>Charsada</td>
<td>49</td>
<td>196 192 98 96</td>
<td>98 92 98 96</td>
</tr>
<tr>
<td>Chitral</td>
<td>24</td>
<td>96 95 48 2</td>
<td>48 45 48 45</td>
</tr>
<tr>
<td>D. I. Khan</td>
<td>46</td>
<td>184 174 94 92</td>
<td>92 72 94 92</td>
</tr>
<tr>
<td>Lower Dier</td>
<td>34</td>
<td>136 8 74 25</td>
<td>68 4 74 26</td>
</tr>
<tr>
<td>Upper Dier</td>
<td>31</td>
<td>124 28 56 46</td>
<td>62 15 56 45</td>
</tr>
<tr>
<td>Hangu</td>
<td>17</td>
<td>68 49 38 34</td>
<td>34 18 38 34</td>
</tr>
<tr>
<td>Haripur</td>
<td>44</td>
<td>176 168 90 90</td>
<td>88 74 90 88</td>
</tr>
<tr>
<td>Karak</td>
<td>21</td>
<td>84 80 42 40</td>
<td>42 39 42 40</td>
</tr>
<tr>
<td>Kohat</td>
<td>27</td>
<td>108 60 64 60</td>
<td>54 16 64 54</td>
</tr>
<tr>
<td>Kohistan</td>
<td>36</td>
<td>144 1 76 1</td>
<td>72 1 76 2</td>
</tr>
<tr>
<td>Laki Marwat</td>
<td>33</td>
<td>132 100 66 62</td>
<td>66 30 66 62</td>
</tr>
<tr>
<td>Malakand</td>
<td>28</td>
<td>112 104 56 1</td>
<td>56 50 56 55</td>
</tr>
<tr>
<td>Mansehra</td>
<td>58</td>
<td>232 158 118 110</td>
<td>116 62 118 106</td>
</tr>
<tr>
<td>Mardan</td>
<td>73</td>
<td>292 204 150 146</td>
<td>146 56 150 142</td>
</tr>
<tr>
<td>Nowshera</td>
<td>47</td>
<td>188 180 96 94</td>
<td>94 84 96 92</td>
</tr>
<tr>
<td>Peshawar</td>
<td>92</td>
<td>368 310 184 180</td>
<td>184 115 184 170</td>
</tr>
</tbody>
</table>
Balochistan covers 43% of the area of Pakistan but its share in the population of Pakistan is less than 5%.

Despite of cultural barriers and criticism from religio-political parties and tribal leaders, women of NWFP participated whole-heartedly in local government elections. Political environment and behaviors were not in women’s favor but they showed commitment during election campaigns and succeeded in capturing more than 90% reserved seats across the province except the districts of Batgram, Lower Dier, Malakand and Kohistan where women representation could not touch the double figure.

3.6 Balochistan
Composition of Balochistan during the period of 2001-10 was as follows:

Table 7

<table>
<thead>
<tr>
<th>Population</th>
<th>Area</th>
<th>Districts</th>
<th>Tehsils</th>
<th>Union Councils</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.16 million</td>
<td>347190 km²</td>
<td>27</td>
<td>128</td>
<td>618</td>
</tr>
</tbody>
</table>

Balochistan covers 43% area of Pakistan but its share in population of Pakistan is less than 5%. Literacy rate among women is at lowest ebb i.e. 25%.

Table 8

<table>
<thead>
<tr>
<th>District</th>
<th>Number of UCs</th>
<th>Women General Seats</th>
<th>Women Labor/Peasants Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2001</td>
<td>2005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Filled</td>
</tr>
<tr>
<td>Awaran</td>
<td>5</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Barkhan</td>
<td>8</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Bolan</td>
<td>27</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Chaghi</td>
<td>19</td>
<td>76</td>
<td>73</td>
</tr>
<tr>
<td>Noshki</td>
<td>10</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Dera Bugti</td>
<td>12</td>
<td>48</td>
<td>5</td>
</tr>
<tr>
<td>Gawadar</td>
<td>13</td>
<td>52</td>
<td>34</td>
</tr>
<tr>
<td>Jafarabad</td>
<td>46</td>
<td>92</td>
<td>90</td>
</tr>
<tr>
<td>Jhal Magsi</td>
<td>9</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Kalat</td>
<td>18</td>
<td>72</td>
<td>62</td>
</tr>
<tr>
<td>Kech</td>
<td>38</td>
<td>152</td>
<td>90</td>
</tr>
<tr>
<td>Kharan</td>
<td>16</td>
<td>64</td>
<td>63</td>
</tr>
<tr>
<td>Khuzdar</td>
<td>36</td>
<td>144</td>
<td>90</td>
</tr>
<tr>
<td>Kohlu</td>
<td>16</td>
<td>64</td>
<td>54</td>
</tr>
<tr>
<td>Lasbela</td>
<td>21</td>
<td>84</td>
<td>80</td>
</tr>
<tr>
<td>Loralai</td>
<td>29</td>
<td>116</td>
<td>107</td>
</tr>
<tr>
<td>Mastung</td>
<td>13</td>
<td>52</td>
<td>50</td>
</tr>
<tr>
<td>Musakhail</td>
<td>10</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>Nasirabad</td>
<td>53</td>
<td>212</td>
<td>158</td>
</tr>
<tr>
<td>Panjgor</td>
<td>16</td>
<td>64</td>
<td>54</td>
</tr>
<tr>
<td>Pisheen</td>
<td>27</td>
<td>108</td>
<td>98</td>
</tr>
<tr>
<td>Kila Abdullah</td>
<td>27</td>
<td>92</td>
<td>75</td>
</tr>
<tr>
<td>Kila Saifullah</td>
<td>15</td>
<td>60</td>
<td>52</td>
</tr>
<tr>
<td>Quetta</td>
<td>66</td>
<td>264</td>
<td>224</td>
</tr>
<tr>
<td>Sibbi</td>
<td>34</td>
<td>136</td>
<td>115</td>
</tr>
<tr>
<td>Zhob</td>
<td>24</td>
<td>96</td>
<td>72</td>
</tr>
<tr>
<td>Ziarat</td>
<td>10</td>
<td>40</td>
<td>34</td>
</tr>
</tbody>
</table>

(Sources: Election Commission of Pakistan, PILDAT and Aurat Foundation)
Women of Balochistan are poorest in terms of literacy, employment and confidence level but despite of this they contested local government elections in 2001 and 2005. Women participation and representation scenario during these elections was nearly same to other provinces. Women won most of the reserved seats but could capture only four to seven general and peasant seats in district of Dera Bugti.

Table 9: A Glimpse of Local Government Elections 2001 and 2005

<table>
<thead>
<tr>
<th>Province</th>
<th>Union Councils</th>
<th>Tehsil Councils</th>
<th>District Councils</th>
<th>All Councils</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women Elected</td>
<td>Percentage</td>
<td>Women Elected</td>
<td>Percentage</td>
</tr>
<tr>
<td>Punjab</td>
<td>20008</td>
<td>96.7</td>
<td>1125</td>
<td>98.4</td>
</tr>
<tr>
<td>Sindh</td>
<td>5879</td>
<td>89.6</td>
<td>358</td>
<td>98.2</td>
</tr>
<tr>
<td>Balochistan</td>
<td>2375</td>
<td>76.5</td>
<td>155</td>
<td>87.5</td>
</tr>
<tr>
<td>KPK (NWFP)</td>
<td>3965</td>
<td>69.1</td>
<td>208</td>
<td>88.8</td>
</tr>
</tbody>
</table>

(Number of elected women in all tiers of local government is highest in Punjab i.e. 97.7% in 2001 and 99.4% in 2005 followed by Sindh i.e. 95.8% and 99.3% respectively. Balochistan stood at third position with 84% in 2001 and 98.3% in 2005. NWFP observed lowest ratio of women participation. Ratio of women representation in tehsil and district councils is higher than that of union councils, which means that women faced problems in direct elections held at union council level.

A report entitled as “Devolution and Human Development in Pakistan” researched by Social Policy and Development Centre gives the details of women participation in all tiers of local government under DOPP 2000. According to report woman participated in local government elections under subject system against historical trends of women participation in local body’s elections (Social Policy and Development Centre, 2006-7).

According to above mentioned report number of women representatives, vacant seats and their percentage in four provinces in different tiers of district government was as given here:

Table 10

<table>
<thead>
<tr>
<th>Tiers of District Government</th>
<th>Number of Tiers</th>
<th>Total seats</th>
<th>Women Representation</th>
<th>Percentage of Women seats (%)</th>
<th>Number of Elected women</th>
<th>Vacant Seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Councils</td>
<td>6022</td>
<td>126462</td>
<td>36066</td>
<td>28.5</td>
<td>32222</td>
<td>3844</td>
</tr>
<tr>
<td>Tehsil Councils</td>
<td>305</td>
<td>8192</td>
<td>1749</td>
<td>21.3</td>
<td>1675</td>
<td>74</td>
</tr>
<tr>
<td>Town Councils</td>
<td>30</td>
<td>773</td>
<td>161</td>
<td>20.8</td>
<td>161</td>
<td>0</td>
</tr>
</tbody>
</table>
Ratio of women nazims and councilors across the Pakistan vary but it can be said that women participation for the office of councilor is mentionable but number of women nazims is very low as given below:

<table>
<thead>
<tr>
<th>Province</th>
<th>Women Representation in the Tier of Union Council</th>
<th>Women Representation in the Tier of Tehsil Council</th>
<th>Women Representation in the Tier of District Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sind</td>
<td>Nazims 0</td>
<td>Councilors 4095</td>
<td>Total seats 22974</td>
</tr>
<tr>
<td>Punjab</td>
<td>Nazims 2</td>
<td>Councilors 13457</td>
<td>Total seats 72513</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>Nazims 0</td>
<td>Councilors 1605</td>
<td>Total seats 10878</td>
</tr>
<tr>
<td>KPK(NWFP)</td>
<td>Nazims 0</td>
<td>Councilors 2807</td>
<td>Total seats 2097</td>
</tr>
<tr>
<td>Total</td>
<td>Nazims 2</td>
<td>Councilors 21964</td>
<td>Total seats 126462</td>
</tr>
</tbody>
</table>


Data extracted from above mentioned report states that women participation (ranging from 14 to 18.6%) in all tiers of district governments vary in all four provinces of Pakistan that is 17% in average. This percentage is highest in all local government systems from the inception of Pakistan.

4. What was New about Women Participation under DOPP 2000?

4.1 Women Political Participation at Grass Root Level
First time in the constitutional history of Pakistan women representation increased to 33% in all tiers of district government.

4.2 Constitutional Provisions
33% representation for women was under constitutional umbrella to protect and legalize the women natural rights.

4.3 Institutional Mechanism
Women representation under DOPP 2000 was not just in announcements but a institutional mechanism was introduced in which women were given equal representation in all tiers of local government.

4.4 Elimination of Discrimination
First time after the emergence of Pakistan as independent state steps were taken to eliminate gender discrimination in senate, national, provincial and district assemblies.

4.5 Socio-political empowerment
Women started to observe their socio-political status and rights under the promulgation of DOPP 2000.

4.6 Gateway to mainstream politics
Women entered in mainstream politics while using the corridor of local politics. Women from poor and middle class background launched themselves in local politics and opened the avenues of provincial and national politics.

5. Issues and Challenges

5.1 Women Participation and Disinformation
DOPP 2000 provided a good chance to women to participate in grass root politics, context local body’s elections and involve in managerial matters of local governments but they were unknown or ill-informed about the plan. It was a political dilemma which proved as a stumbling block in the way of women development. Women participation could be fruitful if they were known of the plan.
5.2 Male domination in policy devising and implementation
Male remained dominated in working of local councils, policy making and implementation. Women were not given role in policy decisions.

5.3 Lack of Capacity Building
Women could not indulge themselves in official activities of local councils due to lack of capacity building.

5.4 Non-provision of Shares in Local Budgets
Local development budgets approved by provincial or district governments were without the shares of women councilors and nazims. They could not satisfy the people of their localities.

5.5 Council’s Headships
Women were given 33% share in district assemblies but seats of nazims of district councils were only for male candidates due to which women could not play effective roles in district governments.

5.6 Hurdles by Tribal and Religious Leaders
Women faced hurdles to participate in local politics and context election due to objections raised by religious and tribal leaders.

5.7 Womanless Citizen community Board and Public Safety Commission
Citizen community board and public safety commissions were important public institutions at district level for development programs and resolution of public complaints respectively but women were kept away from these institutions.

5.8 Indirect Mode of Election for Reserved seats
Indirect mode of election was introduced for reserved seats of laborer, minorities and women owing to which women could not participate directly in local politics.

6. Conclusion
Local government system is essential for local development and governance but absence of women participation makes it poor and ineffective. Women cover more than half of the total population of the country and keeping them away from the local politics means absence of half of the population from the political system. Governments have been involved in keeping poor women participation in local governments since the inception of Pakistan as an independent state. First time in the constitutional history of Pakistan Field Martial Ayub Khan promulgated system of basic democracies with 80000 basic electorates but women representation was next to nothing. General Zia introduced Local Government System of 1979 very different from the previous but same, in the context of women representation. After that, different regimes increased women representation from 10 to 18% in local governments. After assuming the power, General Pervez Musharaf promulgated Devolution of Power Plan 2000 under which women were given remarkable share i.e. 33% in union, tehsil and district councils. It is highest share for women throughout the history of independence but it proved a number game for political parties. Practically women stayed away from the local politics and district management. Women faced many problems during election campaigns, elections, functioning of councils and policy devising and budgetary proceedings. Despite of several positive changes, a high number of issues and challenges regarding women participation were the part of plan. These issues must be addressed to create the opportunities for women participation in local politics according to the spirit of Objectives Resolution of 1949 and Constitution of 1973.

7. Recommendations
- A national plan of action should be framed to resolve the issues related to women participation.
- Support building stratagem, loans and Scholarships for women should be part of local governments.
- Youth quota ought to be comprised of women also.
- Women must be given share in head seats of union, tehsil and district councils.
- Specific ratio for women heads of union, tehsil and district councils ought to be part of manifestoes of political parties.
- Women should be given share in development budgets of local governments.
- Women role in policy making/implementation and district management is need of the hour.
• Separate complaint cells comprised of women personals should be constituted to resolve women related issues at grass root level.
• Make possible the appointment of gender advisors at grass root level.
• Steps must be taken to abolish discriminatory directives and practices.
• So-called religious, traditional and tribal barriers in the way of women participation at grass root level should be removed constitutionally.
• District police, health, education, water and sanitation must be under local government with equal women representation.
• Women panchayat system should be introduced at local level to settle down women relating disputes.
• Government should form local level institutions to bring knowledge and confidence for women.

References
The Impact of Service Quality on Students Satisfaction in higher Education Institutes of Khyber Pakhtunkhwa

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ARTICLE DETAILS

ABSTRACT

The research article emphases on the impact of service quality on students’ satisfaction in higher education institutes of KPK. The research paper examines the service quality by using the scale developed by Chronin and Taylor defined as SERVPERF. The scale is applied to Higher education institutes of KPK. Research methodology used in the current research is quantitative. The data was collected through questionnaires. The respondents of this research were the students of higher education institutes of KPK. 650 questionnaires were distributed among the students of higher education institutes randomly in which 520 were returned having response rate of 80%. The regression analysis indicated that service quality show a positive impact on the students’ satisfaction.

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1. Introduction

In the current situation of competitiveness where students have many options to select, the higher education institutes should know that to attract the students and to maintain them it is needed to have an insight look on their quality of services they are providing. The education has not only become a key business and necessity of the day but it is also a venture by the parents for their children. Students in higher education are more concerned to the service quality; they seek excellence education and tremendous services at study environment which will satisfy them and develop their capabilities to gain an effective educational personality (Malik, Danish, & Usman, 2010).

The students at higher level seek for quality of education and perfection in the study system. The more quality of service is provided by the universities the more powerful performance will be given by the students. According to (Rowley, 1996) the students of those institution are more capable, good performers and productive who retain the better educational service quality and provide their students what they want for their strong academic and carrier accomplishment. The objective of this research is to study the impact of service quality on students’ satisfaction in the higher education environment of KPK. The current research aims to answer “Is there any relationship between education service quality and students’ satisfaction?” The Research hypotheses are (1) Tangibility has significant
effect on the students’ satisfaction (2) Reliability has significant effect on the students’ satisfaction (3) Assurance has significant effect on the students’ satisfaction (4) Responsiveness has significant effect on the students’ satisfaction and (5) Empathy has significant effect on the students’ satisfaction.

2. Theoretical Framework

3. Literature Review
The silent features of literature review are as follows:

3.1 Service Quality
Various authors defined service quality as:

- “Quality is meant for the best and certain customer conditions describe the actual use of the product and its selling price (Feigenbaum, 1961)”

- “Quality is about all the things which consists to satisfy needs and wants”. (Edwards, 1968)

- The level and degree of the product which satisfy the consumer wants and it is the degree regarding the specific product, conforms the design or specification”. (Gilmore, 1974)

- “Service quality reflects about a measure which state that how well the service delivered can match the expectations of the customers”. (Lewis and Booms 1983).

The definitions above support the construct that Service quality and customer satisfaction are directly related to each other. These studies showed consumer satisfaction is substantial when the service provided is equal to or better than expectations. Hence, the review of literature supports the construct that quality of service is one of the primary aspects of customer satisfaction and loyalty.

3.2 Higher Education as a Service and dimensions of service quality in higher education
Like other services providers, higher education institutions are also using different approaches to be specialized and unique in their delivery of services. DeShields et al. (2005) asserted that the higher education institutions should make such principles and strategies which will make these institutions as profit making; these strategies will help them to get competitive advantage, which will definitely improve their student’s satisfaction. The same kind of findings was documented by many academicians, who argue that service quality assurance helps in improving students’ satisfaction (Hemsley-Brown and Oplatka, 2006). Higher education institutions continuously emphasizing to improve their service quality to meet the needs and expectations of the students (DeShields et al., 2005).

Nadiri et al. (2009) documented that higher education institutions are facing problems in knowing the students’ perception and expectations which constitute the service quality and thereby help to attract and satisfy the needs of the students. They farther stated that service quality has an impact on student’s satisfaction. This emerging era really make it necessary for the higher education institutions to foster service quality in their day to day operations to satisfy students’ needs and in order achieve competitive advantage and sustainability in the very competitive service environment (DeShields et al., 2005).

3.3 Dimensions of Service Quality
The core concern with the dimensions of service quality is usually the range of areas which should be included. Cronin and Taylor (1994) state that customers should be the determinants of service quality dimensions rather than the management or the academic staff of the respective institution of higher education. Parasuraman et al. (1990) proposed five dimensions of service quality as follows;

(1) Tangibles are embodied in to the appearance of the facilities, buildings, equipment and the staff.

(2) Reliability is the degree to which all the relevant skills and knowledge are provided in timely fashion and in accurate way.

(3) Responsiveness is a kind of prompt delivery of services to the customers.

(4) Assurance is the building confidence and trust and showing courtesy.

(5) Empathy is the care being offered to the customers by the service provider organization.

3.4 Students satisfaction
Kotler and Clarke (1987) describe satisfaction as the desirous outcome of a task or job that pleases one’s esteem. Rad & Yarmohammadian (2006) stated it as the willful accomplishment which results in one’s contentment. the main concentration with respect to the idea of student’s satisfaction regarding the higher education is that there exists the multi-dimensional quality. So the idea of customer satisfaction has been analyzed in different ways by (Hausknecht, 1990). The same kind of findings was obtained by Giese & Cote (2000) and Wiers-Jenssen, Stensaker & Grogaard (2002) also explained it in the same way.

Bolten (1998) has documented the association among the customer retention, and willingness of customer satisfactions. Anderson et al (1994) also got the same kind of results regarding service quality and student satisfaction. Some other researchers also follow the findings of the above researchers (Johnson & Gustafsson, 2000; Johnson et al., 2001).

4. Research Methodology
The research is quantitative (deductive) in nature to investigate the impact of service quality over students’ satisfaction in higher education institutions of KPK. The population N for this research is all the students studying at higher education institutions of KPK.

4.1 Sampling
At sampling stage 10 universities were selected randomly but with true presentation of population. The size decided was 50% which means 5 universities each from public and private sector of Khyber Pakhtunkhwa, from the total population (Dixon, 2002). As most of the universities are located in Peshawar region of Khyber Pakhtunkhwa 2 public and 3 private sector universities are taken from Peshawar, to cover the south region Kohat university, Abdul Wali Khan university Mardan was taken and to represent Malakand region Malakand university was taken.

Table 1: Sample Frame

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Sample size of public sector universities</th>
<th>Sample size of private sector universities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.2 Data Collection

Questionnaires are useful option while carrying out the surveys as it can be the cheaper and quicker way if the sample used is large and widely dispensed (Mathers, N, Fox, N & Hunn, A). So the data was collected by questionnaire distributed among the students. The questionnaire used was defined by (Chronin & Taylor, 1970) and Kajentheran & Karunanity (2015). 16 questions on tangibility, 7 questions on responsiveness, 7 questions for reliabiltiy and 9 questions for assurance. All questions were designed on five point Likert scale. Data analysis was made in different steps described below:

- Demographic Analysis of the variables such as; gender, age and the education of students, categories of the students and institutions investigated.
- Reliability of the Instrument through Cronbach’s Alpha
- Validity of the Research through Factor Analysis
- Regression: to investigate the impact of variables

5. Data Analysis

5.1 Demographic Analysis

For current study a total 650 questionares were distributed among the students in which 520 errors free questionare were collected back. The demographic variables in the current research effort include age, gender, and degree program of the respondents (students) or target population. The demographic information about the respondents is provided in the following tables:

### Table 2: Age

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent Valid</th>
<th>Percent Cumulative</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid 18-22</td>
<td>295</td>
<td>56.7</td>
<td>56.7</td>
<td>56.7</td>
</tr>
<tr>
<td>22-30</td>
<td>170</td>
<td>32.6</td>
<td>32.6</td>
<td>32.6</td>
</tr>
<tr>
<td>31 and above</td>
<td>55</td>
<td>10.5</td>
<td>10.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Total</td>
<td>520</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The age of the respondents is given in the above table, demonstrating that majority of the respondents are comprised of young students as evident from the sample size (n=295), constituting a valid percentage of 56%. While, students above 22years constitute sample size (n=170) with a percentage of 32%. Similarly, students above 31 represent the sample size at (n=55), forming the valid percentage of 10%.

### Table 3: Gender

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent Valid</th>
<th>Percent Cumulative</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid male</td>
<td>320</td>
<td>58.18</td>
<td>58.18</td>
<td>58.18</td>
</tr>
<tr>
<td>Female</td>
<td>200</td>
<td>38.4</td>
<td>38.4</td>
<td>38.4</td>
</tr>
<tr>
<td>Total</td>
<td>520</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The details about the gender’s responses of the respondents are given in the above table; where majority constitute male respondents with the sample size (n=320) with 58%. Whereas, female respondents are comprised of (n=200), forming 38%.

### Table 4: Education

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent Valid</th>
<th>Percent Cumulative</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid undergraduate</td>
<td>295</td>
<td>56.7</td>
<td>56.7</td>
<td>56.7</td>
</tr>
<tr>
<td>Graduate</td>
<td>170</td>
<td>32.6</td>
<td>32.6</td>
<td>32.6</td>
</tr>
</tbody>
</table>
The education of the respondents (students) is given in the above table, demonstrating undergraduate students evident from the sample size (n=295), constituting a valid percentage of 56%. While, graduate students constitute sample size (n=170) with a percentage of 32%. Similarly, post graduate students represent the sample size at (n=55), forming the valid percentage of 10%.

5.2 Reliability Analysis
For the measurement of entered items, coefficients of the cronbach’s alpha can be used for different variables which are as under. According to Sekaran (2003) if Cronbach’s alphas of any item of the questionnaire ranges less than 0.60 then that item may be deleted from questionnaire. The below mentioned table is showing reliability statistics value of variables of questionnaire administered to the students reveals that there is no issue or problem exists to the separations of questionnaire data items.

Table 5: Reliability of the Instrument

<table>
<thead>
<tr>
<th>Variable</th>
<th>No of Items</th>
<th>Cronbach’s Alpha</th>
<th>Reliability, Yes or No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>16</td>
<td>.817</td>
<td>Yes</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>7</td>
<td>.623</td>
<td>Yes</td>
</tr>
<tr>
<td>Reliability</td>
<td>7</td>
<td>.608</td>
<td>Yes</td>
</tr>
<tr>
<td>Assurance</td>
<td>9</td>
<td>.732</td>
<td>Yes</td>
</tr>
<tr>
<td>Empathy</td>
<td>7</td>
<td>.678</td>
<td>Yes</td>
</tr>
<tr>
<td>Students’ satisfaction</td>
<td>6</td>
<td>.651</td>
<td>yes</td>
</tr>
</tbody>
</table>

The above table shows that the reliability of the data collected for the variable mentioned in column ony6e is positively reliable because the results showing the Cronbach’s value above the acceptable ranges. The researchers argued that alpha value of above .60 is acceptable; however, the value of alpha of the variables is well above the desired and acceptable level. So the scale is highly reliable for further analysis of this study.

5.3 Validity/ Factor Analysis
The KMO test are mainly and widely used to measure the adequacy of sample that had been used in the study. It also shows the validity of the questions in a construct means variables. Therefore, in most academics and business studies have used KMO test as the part of CFA which gives the significant part in deciding about the sample adequacy. So the KMO test range is always from zero 0 to one 1 and these are the world wide accepted parameter as over the 0.6.

Table 6

<table>
<thead>
<tr>
<th>Constructs</th>
<th>No. of Items</th>
<th>No. of items eliminated</th>
<th>KMO value</th>
<th>Bartlett’s test of sphericity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>16</td>
<td>2</td>
<td>.678</td>
<td>.000</td>
</tr>
<tr>
<td>Assurance</td>
<td>9</td>
<td>1</td>
<td>.668</td>
<td>.000</td>
</tr>
<tr>
<td>Reliability</td>
<td>7</td>
<td>2</td>
<td>.668</td>
<td>.000</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>7</td>
<td>1</td>
<td>.668</td>
<td>.008</td>
</tr>
<tr>
<td>Empathy</td>
<td>7</td>
<td>1</td>
<td>.668</td>
<td>.000</td>
</tr>
<tr>
<td>Students satisfaction</td>
<td>6</td>
<td>1</td>
<td>.767</td>
<td>.000</td>
</tr>
</tbody>
</table>

5.4 Regression

Table 7: Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Colinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>Beta</td>
<td></td>
<td>VIF</td>
</tr>
<tr>
<td>Tangibility</td>
<td>0.114</td>
<td>0.045</td>
<td>.221</td>
<td>2.53</td>
<td>0.016</td>
</tr>
<tr>
<td>Assurance</td>
<td>0.127</td>
<td>0.055</td>
<td>.632</td>
<td>2.28</td>
<td>.029</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>0.178</td>
<td>0.047</td>
<td>.539</td>
<td>3.78</td>
<td>.000</td>
</tr>
</tbody>
</table>
The above table represents the impact of the education service quality on the satisfaction of the students. The results demonstrate that tangibility has positive significant impact on the students’ satisfaction (t=2.53, p<0.05). The beta value of tangibility 0.114 demonstrates that one unit change in tangibility will account for 0.114 unit change in students’ satisfaction. Assurance shows positive significant impact on students’ satisfaction (t=2.28, p<0.05). One unit change in assurance will cause 0.127 unit change in students’ satisfaction. Similarly, responsiveness also predicts positive significant impact on students’ satisfaction as its underlying t-value is significant at 5% probability level (t=3.78, p<0.05). One unit change in responsiveness will cause 0.178 unit change in students’ satisfaction. Reliability also shows positive significant effect on students’ satisfaction (t=2.13, p<0.05). One unit change in reliability will cause 0.112 unit change in students’ satisfaction. Empathy also shows positive insignificant impact on the student’s satisfaction of both public and private sector universities (t=0.07, p>0.05). The reported beta value of empathy is 0.07, which means that one unit change in empathy will bring 0.07 unit change in student’s satisfaction.

The R-square 0.68 indicates that 68% changes are caused by these factors of education service quality on students’ satisfaction. The F-value also demonstrate that the overall model is significant and fit due to its reported value well above its critical value, i.e F=4. The F-value is significant at 5% level of probability.

The results of this study shows the values tolerance and VIF within feasible ranges as per the suggestions of (O’Brien & Robert, 2007). The above tolerance values reflect that the tolerance level is moderate and good and the VIF values also showing within the feasible ranges.

### 6. Discussion

The purpose of this research study was to investigate the impact of service quality on students’ satisfaction in higher education institutes of KPK. The results indicate that tangibility dimension of service quality has significant impact on the students’ satisfaction. The hypothesis tested for the impact of service quality on students’ satisfaction proved validated and results declared that tangibility dimension of service quality carries significant impact on the students’ satisfaction supporting Ilias, Rahman & Razak (2008), Kajenthiran & Karunanithy (2015)’s results. The results also indicate that there is positive significant impact of assurance factor and students’ satisfaction. The hypothesis tested for the impact of service quality on students’ satisfaction proved validated and results declared that assurance dimension of service quality carries significant impact on the student’s satisfaction supporting Ilias, Rahman & Razak (2008), Kajenthiran & Karunanithy (2015)’s results.

The results demonstrate that responsiveness has also positive significant impact on the students’ satisfaction. The hypothesis tested for the impact of service quality on students’ satisfaction proved validated and results declared that responsiveness dimension of service quality carries significant impact on the student’s satisfaction supporting Ilias, Rahman & Razak (2008), Kajenthiran & Karunanithy (2015)’s results. The results demonstrate that responsiveness has positive significant impact on the students’ satisfaction. The hypothesis tested for the impact of service quality on students’ satisfaction proved validated and results declared that reliability dimension of service quality carries significant impact on the student’s satisfaction supporting Ilias, Rahman & Razak (2008), Kajenthiran & Karunanithy (2015)’s results. The results also indicate that there is positive significant impact of assurance factor and students’ satisfaction. The hypothesis tested for the impact of service quality on students’ satisfaction proved validated and results declared that assurance dimension of service quality carries significant impact on the student’s satisfaction supporting Ilias, Rahman & Razak (2008), Kajenthiran & Karunanithy (2015)’s results.

The results demonstrate that empathy has also positive significant impact on the students’ satisfaction. The hypothesis tested for the impact of service quality on students’ satisfaction proved validated and results declared that empathy has positive insignificant impact on the students’ satisfaction. The hypothesis tested for the impact of service quality on students’ satisfaction proved validated and results declared that empathy has positive insignificant impact on the students’ satisfaction. The hypothesis tested for the impact of service quality on students’ satisfaction is rejected supporting Ilias, Rahman & Razak (2008), Kajenthiran & Karunanithy (2015)’s results.

### 7. Conclusion

The competitive market in education sector is giving rise to the need to provide better service quality to students so that they will be capable to attract and retain the students. This competition is creating pressure over all the higher education institutions in terms of its quality. So this study aimed to identify the impact of service quality over students’ satisfaction in higher education institutes of KPK. The impact of service quality on students’ satisfaction show a positive impact for the dimensions for tangibility, reliability, responsiveness, assurance, while empathy has a positive insignificant impact on the students’ satisfaction. the study offers a significant contribution to the body of knowledge regarding service quality and students’ satisfaction of Khyber Pakhtunkhwa. The study offers a significant contribution to the body of knowledge regarding service quality and students’ satisfaction of higher
education institutions of Khyber Pakhtunkhwa, as well as it will also help policy makers to develop strategies to their service quality in order to attract and retain the customers.
References


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