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Asad Shahzad

The Impact of Integration in Supply Chain Macro Processes on Supply Chain Performance with The Moderating Role of Information System Support

Shahzad Ahmad Khan*, Waqas Mahmood**, Shahid Iqbal***, Qamar Farooq****

Abstract

The objective of this study was to discover the impact of integration in Supply Chain Macro Processes and its effect on the supply chain performance with the moderating role of Information system support. For the purpose of data collection, questionnaires were distributed to targeted respondents and a total figure of 212 questionnaires duly filled has been incorporated in this study. Correlation and regression analyses were applied on the data collected for its further analysis. The results show that the integration in supplier, internal supply chain, and customer relationship in supply chain using information system support has a great impact on supply chain performance. Through this study, it has been revealed that in the emerging market economy of Pakistan, the suppliers and customers involvement in supply chain is very critical for the improvement of supply chain performance. The better the integration with suppliers and customers, the better will be the supply chain performance and as result the organization can progress and can increase its revenue. This study will also be helpful for supply chain execution in CPEC.

Keywords: Supplier integration, Internal supply chain, Customer relationship, Supply chain performance, Information system support, Pakistan.

JEL Classification: M300

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1. Introduction

In the current decades, the improvement of the supply chain performance has grabbed attention of various researchers and supply chain managers. Enhancement of the supply chain performance has become one of the critical topics in various industries due to start of CPEC for achieving competitive advantages. Supply chain is the two-sided movement of data, material and money amongst the primary suppliers and end customers passing from various companies and the supply chain management comprises of the arrangement, execution and monitoring of this movement (Nurmilaakso, 2008).

Nowadays, many companies are head-to-head for improving their firm's effectiveness in order to compete in the 21st century global market. This market is electronically linked and it has a dynamic nature. In the perspective of a dynamic supply chain, the nonstop development in the performance has become a serious concern for the vendors, manufacturers, and the associated retailers to gain and maintain competitiveness. In practice, the various supply chain centered companies (e.g., Dell, Lenovo, Samsung, Wal-Mart, Toyota etc.) have used different performance enhancement practices for supporting of their organization's supply chain policies (Cai et al., 2009). Almost all managers are very much aware that the key to get success in market is shining in tailoring one's contributions to the explicit needs of each client although still upholding low costs and prices (Anderson & Narus, 1995).

Among the several areas of the supply chain improvement, information sharing has gained much attention of the scholars. As the information presented at each stage of the supply chain has a direct influence on assembly scheduling, inventory mechanism and distribution plans, information sharing has become the key driver of the functional performance. By the effective communication of information in the supply chain network, an organization can immediately find out the difficulties regarding the requirements of the customers, particularly once the customers need to have info focused on their specific demands and concerns at any time and everywhere. This type of information can support the organization to plan in advance for countering these demand shifts, and is essential for achieving its better working performance (Liu et al., 2013).

- a) What is the impact of Supplier Relationship (SR) on Supply Chain Performance (SCP)?
- b) What is the impact of Internal Supply Chain (ISC) processes on Supply Chain Performance (SCP)?
- c) What is the impact of Customer Relationship (CR) on Supply Chain Performance (SCP)?
- d) Does using information support system will moderate the effect of SR, ISC, and CR on SCP?

This study will aim the use of latest information support system practices applicable for the supply chain improvement, such as Electronic Data Interchange (EDI), Electronic Fund Transfer (EFT), Radio Frequency Identification (RFID) for logistics, World Wide Web (www.) order system and Order Management Software (OMS) linked through internet with supply chain partners.

The study expects that by application of information system support, the supply chain performance will boost up considerably as a result of better integration of supply chain macro processes. The findings of the study will guide the leaders and the senior management who are continuously devoting their managerial and financial resources to increase the organization's supply chain performance, hence increasing their business revenue. This study will also be helpful in supply chain execution in (China–Pakistan Economic Corridor) CPEC.

2. Literature Review

According to the work of Chopra and Meindl (2003), all the supply chain processes can be classified into three major processes namely; Supplier Relationship Management (SRM), Internal Supply Chain Management (ISCM) and Customer Relationship Management (CRM). And these three major supply chain processes are termed as the Supply chain Macro Processes (Chopra & Meindl, 2007). This is also consistent with the study of Schoenherr and Swink (2012). Advances in IST have an enormous influence on the development of supply chain management. As an outcome of such technological developments, supply chain associates can now work in close-fitting direction for the optimization (Austin et al., 1995).

The integration of supply chain processes and their impact on supply chain performance has been studied by various researches in the recent years (Mackelprang et al., 2014; Qrunfleh & Tarafdar, 2014; Huo, Wang, & Zhao, 2014). A number of past studies have also revealed that the introduction of information technology for integrated supply chain control could lead to improved productivity and effectiveness of the firm, compared to the current logistics systems (Goldhar & Lei, 1991). For instance, under the existing warehouse management system, it is necessary to have appropriate space to preserve a large inventory for in-time supply. Integrated supply chain management employing information systems and a common supply chain databank can enable the firm to classify ideal inventory levels, decreased warehouse space and growth in inventory's overall gross revenue (Kaeli, 1990).

2.1 *Supplier Relationship Management and Supply Chain Performance*

Establishing and retaining valuable relations with suppliers has turned out to be more critical for the organizations for staying competitive in the market (Prajogo et al., 2012).

Choosing the right suppliers considerably reduces the acquiring cost and increases business efficiency (Choy, lee, & Lo, 2003). A main factor of the customer's profitability is the measuring of the amount of money spent on goods and for their services. Hence the importance of outsourcing has increased radically in the past years. Therefore, customers demand for low procurement costs but trying not to compromise on the quality. Making good relationships with suppliers is one of the techniques of achieving price reductions (Walter et al., 2003) and therefore increasing the supply chain performance. SRM initiates cost reductions by empowering updated business practices and enhanced flow of the information (Herrmann & Hodgson, 2001). A mixture of practices, approaches along with the use of technologies which the enterprises commonly used to accomplish and scrutinize client's relationship throughout the client lifecycle (Chakravorti, 2006).

In business markets, long-term coordination has become one of the key concerns in associations among customers and their suppliers (Ganesan, 1994). Long-lasting relations with designated suppliers are seen as a basis of a stronger practical position. Continuing affiliations with suppliers' support firms to be more effective in procurement along with more realistic in providing quality and in decreasing business costs (Sheth & Sharma, 1997). As a result, companies are starting to officially recognize and compensate differences among their qualified suppliers so as to develop and sustain supportive relationships (Dorsch et al., 1998). To create a set of relations with qualified suppliers who fortify the competitive position, consumers should be capable of knowing the important differences among these suppliers. Dorsch et al. (1998) establish in their study that linkage quality can be regarded as a base for the enlargement and execution of effective and desired supplier programs. Cost lessening approaches in supply chain management emphasis on the discovery of the most effectual and inexpensive ways to procure and store products and transport them from point 1 to point 2 to ensure the customer contentment (Christopher, 1999). Maloni and Benton (2000) have established a model of influence in the supply chain. Their study suggests that a stronger customer-supplier bond increases the overall performance in the supply chain.

Hypothesis 1: A good supplier relationship management will have a positive impact on the supply chain performance.

2.2 Internal Supply Chain Management and Supply Chain Performance

By the integration of internal supply chain processes, the internal functions of the firm are well organized and result in the betterment of supply chain performance (Schoenherr & Swink, 2012). According to the study of Gunasekaran, Patel, and McGaughey (2004), the elements through which supply chains run into a competition, flexibility is considered as a the most critical one. In the perspective of supply chain

management, the internal information sharing has been found to improve the process of information exchange among the participants in supply chain network and adds to the profitability (Rai, Patnayakuni, & Seth, 2006). The objective of global manufacturing is to make the most of through the design and control of material flows within the system (Cohen et al., 2013). The purpose of the supply chain management does not finish once the product is delivered to the customer. After-sale transaction activities play a vital role in customer facilitation and provide important feedback that can be utilized for additional improvement in the supply chain performance (Gunasekaran et al., 2004). A decision making needs to be founded on the complete business details of technology and expertise to be used for the best business practices (Kaltwasser, 1990). In contemporary business practices, competition is no longer among companies, but amongst supply chains (Wu, Chuang, & Hsu, 2014).

From the several models discussed in this section, and their impact on internal supply chain processes for cost reduction and performance improvement, it can be concluded that;

Hypothesis 2: An efficient internal supply chain management will have a positive impact on the supply chain performance.

2.3 *Customer Relationship Management and Supply Chain Performance*

According to Christopher (2016), the building of good relationships with customers will result in the increase of customer satisfaction and lowering the associated costs, hence increasing the supply chain performance. Customer relationship consist of the complete range of actions which are engaged for the handling of customer complaints, formation of long-lasting affiliations with customers, and increasing the customer satisfaction (Claycomb, Dröge, & Germain, 1999). Various firms view CRM mainly as investing software and latest technology, while others see the CRM role for typically developing extended and fruitful relationships with customers (Reinartz , Krafft, & Hoyer, 2004).

Customer relationship management (CRM) has turned into a very essential module in the competitive and economical industry environment in the 1990s and at present it has become a multi-million-dollar industry (Choy et al., 2003). Fundamental sources for increasing customer satisfaction comprise of manufacturing constantly good quality products in addition to the provision of excellent customer service. CRM is a practice through which a firm makes the most of consumer information in the struggle to increase faithfulness and preserve consumers' trade for the lifetime (Choy et al., 2003). It was discovered how novelties surrounded by supply chain communication systems affect network relations & market performance (Kim et al., 2006).

The main objectives of CRM are (a) to form extended and gainful relations with preferred customers, (b) become closer to these selected customers at each single place of interaction, and, (c) take full advantage to increase the share of the company in the customer's wallet (Shaw, 1999).

Hypothesis 3: A good customer relationship management will have a positive impact on the supply chain performance.

2.4 Moderating Role of Information System Support and Supply Chain Performance

It has been discovered in the past studies that by the use of Information Technology (IT) systems, the supplier's relationship will be more organized and will result in an improved supply chain performance (Prajogo & Olhager, 2012). In the study of Cannon and Homburg (2001), they describe supplier information sharing as the degree up to which the supplier willingly shares data about the upcoming events that could be valuable for good customer relationships. They include (1) significant cost savings, (2) improved approachability and adaptability to customer needs, and (3) considerably more rapid order cycles. Collectively these advantages can result in significantly much less duration to increase the market segment based on the consumer's demand (Choy et al., 2003).

According to the study of Schoenherr and Swink (2012), the use of Information Technology (IT) will improve the collection, distribution and presentation of important information obtained through supplier's and customer's integration processes, and eventually will result in the improvement of operational and supply chain performance of the firm. The majority of the earlier researches presented in this study show that the induction and deployment of Information System in value chain practices will ultimately improve the firm's supply chain effectiveness by the well-organized association and collaboration of different supply chain activities (Hewitt, 1994). Technology includes novel developments to decrease main process times and lead times ominously for the optimization (Schroeder & Flynn, 2002). The selected purchasing practices and client relation practices are strongly related with the apparent monetary and market achievement of companies (Tan, Kannan, & Handfield, 1998).

The findings of Prajogo and Olhager (2012) showed that the use of Information Technology (IT) systems will significantly harmonize the planning and execution stages of supply chain operations between the firm and its customers, consequently increasing the supply chain performance. Customer relationship management (CRM) is considered much significant in competitive professional organizations since late 1990s and has now become a multimillion-dollar industry (Choy et al., 2003). The fundamental components for increasing customer satisfaction comprises of manufacturing constantly good quality products and

delivering high quality of customer support. CRM is a route through which a corporation makes the most of the available customer information for the purpose to maximize trust and preserve customers' trade for the lifetime (Choy et al., 2003). Supply-chain optimization is the application of different processes and tools to make ensure that the optimal operation of a manufacturing and distribution takes place (Poirier & Reiter, 1996).

Past studies conclude that well developed cooperation within the supply chain insist on all the supply chain members to implement e-business linkages or a joint IT setup for information sharing (Horvath, 2001).

Hypothesis 4: Information system support will moderate the positive effect of supplier relationship management on supply chain performance.

Hypothesis 5: Information system support will moderate the positive effect of internal supply chain management on supply chain performance.

Hypothesis 6: Information system support will moderate the positive effect of customer relationship management on supply chain performance.

2.5 Research Model/ Conceptual Framework

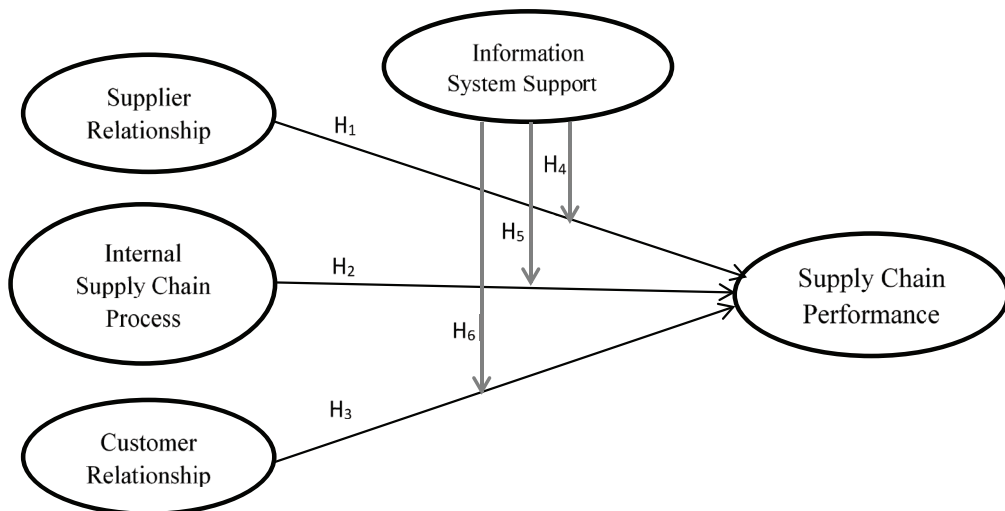


Figure 1: Research Model

3. Research Methodology

3.1 Research Design

A quantitative approach has been used to examine the effect of supply chain macro processes (supplier relation, customer relation & internal supply chain processes) on supply chain performance was measured. The fundamental theme of this study is the usage of information system support for integration of supply chain macro processes and then analyzing their impact on overall supply chain performance. The research on these study variables was conducted on the basis of self-reported questionnaires involving respondents related directly to the supply chain process. This is basically a line of work study because the participants i.e. the industry persons were contacted on their job to fill out the questionnaires in their regular work environment.

3.2 Population and Sampling

This research survey consists of the population of the industry persons related to the supply chain process in the private and public sectors of the five big cities of Pakistan (Islamabad, Lahore, Faisalabad, Peshawar and Karachi). The study was based on the field survey. Cross sectional sampling technique was used in this research. These techniques were used for appropriate results with randomized responses of participants and to avoid any type of biasness. The respondents were mostly sales managers, area managers, product managers, procurement managers and also their immediate juniors from different industries of Pakistan.

For the purpose of data collection, 250 questionnaires were distributed from which 217 were received back. Same figure was analyzed, from which 212 were found complete/correct. Response rate was 84 %, and it is quite favorable as only targeted respondents were consulted for the data collection rather than generalized public. To increase the spectrum and range of this research, the primary data used in this study has been collected from various organizations of different sectors. Having in consideration the title of study, the data has been critically gathered only from those companies that incorporate supply chain in their businesses.

4. Data Analysis and Results

In the first step scale consistency was measured for each scale individually, in the second step Pearson coefficient of correlation was checked. Furthermore, multiple regression analysis was conducted to check the strength of association between variables. In the last step moderation analysis was done to check the moderation effect of Information support system. For knowing the reliability of the scales used, the Cronbach Alpha of each variable scale was calculated using SPSS.

According to Hair et al. (2006) and George and Mallery (2003), the value of Cronbach Alpha above 0.70 is considered acceptable. The reliability of each variable's scale is given below.

Table 1
Reliability Analysis (Cronbach Alpha)

	No. of Items	Cronbach Alpha
Supplier Involvement	6	0.76
Customer Involvement	7	0.78
Internal Supply Chain	7	0.77
Information Support Sys.	6	0.81
Supply Chain Management	10	0.80

4.1 Correlation Analysis

Table 2
Moderating Regression Analysis

	Mean	SD	1	2	3	4	5
1 SI	4.160	0.429	1				
2 ISC	4.105	0.446	.618**	1			
3 CI	4.165	0.423	.692**	.737**	1		
4 ISS	4.221	0.443	.643**	.640**	.605**	1	
5 SCP	4.189	0.388	.663**	.628**	.665**	.681**	1

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

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

Sample Size, N = 212

Table 4.7 revealed that there exists a strong relationship between Supplier Involvement (SI) and Supply Chain Performance (SCP) at correlation $r = 0.663$ (significance value of $p \leq .01^{**}$). The Customer Involvement (CI) has also strong relationship with Supply Chain Performance (SCP) at $r = 0.665$ at value of $p \leq .01^{**}$. Internal Supply Chain integration (ISC) has also positive correlation with the dependent variable, i.e. Supply Chain Performance (SCP) with $r = 0.628$ and $p \leq .01^{**}$. Similarly, the moderator, Information System Support (ISS), also indicated a strong relationship with the dependent variable i.e. Supply Chain Performance (SCP) having correlation $r = 0.681$ and significance $p \leq .01^{**}$.

In correlation analysis, it is found that all study variables are correlated with each other, which also indicates the acceptance of overall research model.

4.2 Regression Analysis

Table 3
Moderating Regression Analysis

Predictor(s)	Supply Chain Performance		
	B	R ²	ΔR ²
Step-I			
Control Variables		.026	
Step-II			
Supplier Involvement	.234**		
Customer Involvement	.215**		
Internal Supply Chain	.322**		
Information System Support	.382***	.598	.573***
Step-III			
SI x ISS	.321***		
ISC x ISS	.299***		
CI x ISS	.302***	.621	.615***

*P<0.05, **P<0.01, ***p<.001, ns= none-significant.

SI x ISS = Interaction Term (Product of Supplier Involvement and Information System Support), ISC x ISS = Interaction Term (Product of Internal Supply Chain and Information System Support), CI x ISS = Interaction Term (Product of Customer Involvement and Information System Support).

R² and ΔR² will be the same for IV and Moderator in whole step (Step-II), so this will be treated for both IV and Moderator. The same will be applicable in Step-III. For the testing of hypotheses, moderated regression analysis was utilized in this study.

The first hypothesis (Hypothesis 1) proposed that “A good supplier relationship management will have a positive impact on the supply chain performance”. The results of regression analysis have shown that Supplier Involvement had a significant positive influence on the supply chain performance and the beta value was found to be $\beta = 0.234$ and significance level was **p<0.01. So, the Hypothesis 1 is validated.

The second hypothesis (Hypothesis 2) proposed that “An efficient customer relationship management will have a positive impact on the supply chain performance”. The results of regression analysis have directed that the customer relationship management have a significant effect on the supply chain performance ($\beta = 0.215$, $p < 0.01$ ns). Therefore, Hypothesis 2 is supported.

The third hypothesis (Hypothesis 3) proposed that “A well internal supply chain management will have a positive impact on the supply chain performance”. The results of regression analysis have illustrated that the Internal supply chain management had a significant positive influence on the supply chain performance and the beta value was found to be $\beta = 0.322$ and significance level was $**p < .01$. So, the Hypothesis 3 is supported.

The fourth hypothesis (Hypothesis 4) stated that “Information system support will moderate the positive effect of supplier relationship management on supply chain performance such that the relationship will be stronger with the information system support”. The results of regression analysis have indicated that the moderating role of Information System Support between the Supplier relationship management and supply chain performance have a significant effect ($\beta = 0.321$, $***p < .001$). Therefore, Hypothesis 4 is supported.

The fifth hypothesis (Hypothesis 5) states that “Information system support will moderate the positive effect of internal supply chain management on supply chain performance such that the relationship will be stronger with the information system support”. The results of regression analysis have revealed that the moderating role of Information System Support between the Internal supply chain management and supply chain performance have a significant effect ($\beta = 0.299$, $***p < .001$). Therefore, Hypothesis 5 is supported.

The last hypothesis (Hypothesis 6) stated that “Information system support will moderate the positive effect of customer relationship management on supply chain performance such that the relationship will be stronger with the information system support”. The results of regression analysis have revealed that the moderating role of Information System Support between the customer relationship management and supply chain performance have a significant effect ($\beta = 0.302$, $***p < .001$). Therefore, Hypothesis 6 also supported.

5. Discussion, Practical Implications, and Directions for Future Research

5.1 Discussion

This study was focused on the measures to be taken for the improvement and enhancement of the supply chain performance. This study is conducted in Pakistan, which is a developing market in the developed market economies of the world.

The aim of this study was to find out the impact of integration of supply chain macro processes on the supply chain performance with the moderation of information system support. The method used in this study for the testing of hypotheses by applying the moderated regression analysis method, developed by Cohen and Lee (1989). The data analysis results have provided support for this hypothesis and revealed that the supply chain performance will boost up when an effective and efficient supplier relationship management is done. The positive relationship exists among these variables and they are also strongly correlated to each other. These results are consistent with the studies of Wilson (1995), Sheth and Sharma (1997), Maloni and Benton (2000), Herrmann and Hodgson (2001), Choy et al. (2003), Walter et al. (2003) and Prajogo et al. (2012).

The results of this study revealed that the more a company focuses on the Supplier relations and Customer relations in the developing economy of Pakistan, the better will be the performance of the supply chain. Here the missing link was the focus on the internal supply chain processes of a company and also the use of information system support for the supply chain integration.

5.2 *Practical Implications*

If the companies are strongly linked with their customers, they can timely convey all the required information to their integrated suppliers which they need to line up their manufacturing and distribution plans. The synchronization between demand and supply and timely communication with suppliers and customers will minimize the bullwhip effect (Danese, Romano, & Formentini, 2013). However, as the company's resources are constrained and the leaders should prefer the most beneficial use of these available resources, the results of this study propose that for the objective of increasing the supply chain performance in the developing countries, the managers must spend in to improve the communication among suppliers and customers instead of investing within the company.

These cooperative actions among with suppliers and customers will enable the organization to mutually buildup a better estimation of the future demand, create more accurate plans to fulfill that demand, and organize its actions in a more efficient way to complete the job (Barratt, 2004).

5.3 *Theoretical Contribution of the Study*

This study contributes to the body of knowledge of the supply chain management and also provides support to past theories. The results of this study are in line with the Structural contingency theory (SCT) proposed by Lawrence and Lorsch (1967).

5.4 *Directions for Future Research*

1. These results were of the emerging market economy; a similar study in developed market economies may reveal different results where commercial, societal, political and industrial trade systems are different.
2. Results of this study maybe coupled with the cultural effects, a cross-cultural study can be performed to find out the cultural effects on the supply chain performance.
3. About 57 (27%) questionnaires were collected using Online Internet Survey (google forms) for the convenience sample of companies and its results may contain bias, therefore it is advised to take it into account when applying these results on a specific population.
4. The data collected was from food manufacturing industry, pharmaceutical industry and electrical parts manufacturing industries. A future study can be conducted on different type of industries such as the services industry, architecture and construction industry, software industry, power & energy sectors.
5. In this study, the supply chain performance was measured with respect to the Information driver only. Besides the Information driver, there are five other supply chain drivers too such as, Facilities, Transportation, Inventories, Sourcing and Pricing. The effect of these other five drivers on supply chain performance can also be studied and it may reveal useful results.

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HRM Practices in the Context of Organizational Performance-A Literature Review

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Abstract

Human resource management (HRM) is one of the most crucial and important emerging parameters to enhance the organizational performance in any company or organization. Also, HRM plays a crucial part in the performance of an organization. The aim of this study and research is to identify the HRM practices that are affective to boost up organizational performance. To achieve this aim, the method of document analysis was used. On the basis of scientific literature reviewed from academic databases, the HRM practices which were mentioned in connection with organizational performance, were detected and described for its impact on organizational performance. To explore which practices of HRM are affective for improvement of organizational performance, the systematic literature review was conducted. For the present study, the main sources of literature were online multidisciplinary academic databases and published research work. Researchers have reviewed the extensive and most acceptable literature that studies are purely focused on organizational performance and HRM. The outcomes of this research have given recommendations to policy makers, researchers, and top management of various organizations.

Keywords: HRM practices, Organizational performance, Studies literature, Policy makers, Academic databases.

JEL Classification: M500

1. Introduction

HRM solely aims to ensure that the company or organization should be capable of attaining success through people. Accordingly Ulrich and Lake (1990) remarks that HRM

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systems can be the source of organizational capabilities that allow firms to learn and capitalize on new opportunities. Hence the drive to adopt HRM is based on that it is unnecessary to respond an outside threat out of increasing competition in the market. The study focusing on the influence of Human Resource Management (HRM) practices on organizational performance has become popular during the past three decades (Appelbaum & Batt, 1994; Chan, Shaffer, & Snape, 2004; Huselid, 1995; Sheehan, 2014). The previous literature includes surveys and studies that concentrates on efficiency and performance effect of certain HRM methods and practices for instance, training (Clark, 2008; Swezey & Salas, 1992). However, a lot of surveys came out with a result that there is a positive linkage between different HRM objectives and practices and perpetual and objective measures of firms performance, some researchers (Bell et al., 2017; Kozlowski et al., 2001; Liang, Moreland, & Argote, 1995; Muqadas, Rehman, & Aslam, 2017a) have shown concern that outcomes may be prejudiced because of methodological challenges and problems. Still there is agreement among researchers that the attributes of Human Resource Management are in no way universal. The existing article aims to develop the links between organizational performance and HRM practices. From this perspective the article has its foundation in 50 articles published in impact factor journals published during 1990 to 2017.

2. Literature Review

2.1 *Selection of HRM Practices for the Study and Rationale*

The tag HRM has been widely in use for approximately the last ten to fifteen years. Previously, the field was commonly titled as “personal administration” (Storey, 2007). In 1920, it's clearly defined that personal administration was principally concerned with the technical aspect like recruitment, evaluation, development and training, remuneration of employees and staff function (Armstrong, 1996). The personal administration did not focus on the connection of employment practices on entire Firms' performance or on the systematized relationships (Iles, Chuai, & Preece, 2010). Whereas HRM is known as personnel management groups all actions carried out by an organization to ensure the efficient utilization of workers towards accomplishment of group, organizational and individual objectives (Konrad, Yang, & Maurer, 2016; Muqadas et al., 2017b). Many studies such as (Ahmad & Schroeder, 2003; Boselie, Dietz, & Boon, 2005; Khan, 2010; Saboor, Mukhtar, & Sadiq, 2015; Snape & Redman, 2010; Aslam et al., 2018a) have been carried out to analyze the relationship between organizational performance and HRM practices. They concluded that growing organization will adopt HR practices for their strategy. For gaining the sustainable competitive advantage and survival for the long run different companies will adopt different designs, structural approaches of HRM practices which facilitate them to implement their unique type of strategy. For example, a firm will adopt cheap cost strategy which will distinguish from other firms, and then this firm will require different HRM practices to excel in product differentiation.

Further extant studies also argued that organizations enhance their abilities and align their direction to new business realities by adopting HRM practices. A lot of external factor will affect the organization e.g. globalization, technology, product life cycles, infrastructure design, legislation etc. But if the organization will implement the HRM practices in their day today business then these practices will largely cover these effects positively and reduce potential resistance to new business realities.

HRM practices focus on the strategic unity of the mindset that is positively effect on the firm's distinct competence, with in the business. Those organizations will not be practicing the HRM practices, where the employee is working in ordinary direction just accomplishing the organization mission. But on the other hand, where the HRM practices are operationally held, the employees are working with the share mindset which is directly aligning to the organization successive mission, goal, objectives and aims.

It is also observed that rare research has been conducted on HRM practices and strategy (Pfeffer, 1994). Delery and Doty (1996) argued that some HRM practices are continually linked with organizational performance. They also stated that growing organization will fulfill its target by adopting the HRM practices and having their ability to retain and develop its key employees, providing the training and development session to the worker time to time, giving reward for their potential effort in their task and these types of companies will become the role model of others. Geanuracos and Meiklejohn (1994) postulated that at the heart of this new thinking is an understanding that reliance on financial measures alone often undermines the strategies the company must pursue to survive long term. Today's smart firms are searching for ways to incorporate into their regular performance evaluation non-financial measures such as quality, market share, customer satisfaction, human resources, innovation and learning.

2.2 *Linking HRM and Performance*

Researchers from various discipline have proposed different conceptual structures as explanation of the connections amid progressive organizational performances and HRM practices. Schuler and Jackson (1995) in their study review stated that methods as diverse as general system theory (Bertalanffy, 1950), human capital theory (Becker, 1964), role behavior theory (Aslam et al., 2018b), institutional theory (Meyer & Rowan, 1977), resource dependence theory (Pfeffer & Blake, 1987), transaction cost economics (Williamson, 1981) and the resource based hypothesis of the organization (Barney, 1991) have been utilized for the analyses of imperative role of HRM in the identification of firms performance. Guest (1997) documented that HRM practices will positively effects on the knowledge, skills, ability, attitude, actions, aptitude, proficiency, competence of the employees and may therefore on the organization performance. Hence it is right to say that the configuration and arrangement

design of the HRM practices with organization policy and practices like development and training, career opportunity, selection and recruitment, performance appraisal, man power, job design and rotation can play a vital role for the organization (Hartog, Boselie, & Paauwe, 2004).

2.3 *HR Best Practices*

A lot of scholars carry out studies on HRM practices from time to time and they identified different types to HRM practices. Chandler and McEvoy (2000) propose that HRM is one the best tools, operational technique and practice through which the organization manage their employee. When making the linkage between firm performances and HRM practices through the best practices or performance practice, we require a strong uniformity among HRM that internal fit in view of attaining high performance of the organization. HRM practices affect organizational performance directly or indirectly by several variables which are explained in the following literature.

2.4 *HRM Practices and Employee Relationship*

Through the effective HRM the organization attains the employee's unity, employee teamwork, shared vision toward the organization(Kooij et al., 2010; Ulrich, 1998). Guzzo and Noonan (1994) suggest that HR practices are superior universal approach through which mutual understanding develop among the employee within the organization and build communication channel between the employer and employees. Likewise,Tzafrir et al. (2004) illustrated that organization gain the employees trust, faith, belief through the effective HRM practices. The outcomes demonstrated that there is significant and positive trust relationship among employees and the manager through organization communication, practical impartiality, and empowerment.

2.5 *HRM Practices & Service Quality*

Scholars gave the strong proof that HR practices have a considerable influence on the service quality of the firm (Batt, 2002; Boylan, 2002; Wright et al., 2005).Tsaur and Lin (2004) Analyzed that there was a substantial relationship between HRM and service quality by creating the interceding variable via service behavior. The outcomes show that Human Resource Management practices have an indirect effect through the workers service behavior and a direct effect on the insight of the consumer service quality.

2.6 *HRM Practices and Employee Commitment*

Human Resource Management practices reflect that how much employees are committed to their organization, how much they are contributing their efforts toward the organization. Maheshwari et al. (2005) carry out a research on the commitment of health officials and the result show negative relationship with the department. The condition needs improvement of the HRM practices in that manner to strength the operation and function of the health system. The research also proposes that there is dire need for the carrier and growth expansion of the health experts for which the firm has to build up numerous strategies and policies. In the same way, Smeenk et al. (2006) illustrate that there is a significant relationship between the Dutch university employees in two diverse faculties' educational uniqueness (separatist and hegemonies) and organization commitment.

2.7 *HRM Human Capital and Performance*

For the growth of the firm the human capital plays a significant role, human capital deals with the employee abilities, skill and knowledge which enhance the productivity of the firm both effectively and efficiently (Aslam et al., 2016; Aslam et al., 2015; Subramaniam & Youndt, 2005). Human capital made the boundary between the customers and the firm through the customer-contract employee service settings (Mills, Chase, & Margulies, 1983). Due to this reason the collective human capital relate to the HRM and high organizational performance and the firm will gain competitive benefits which include rare, inimitable, non-substitutable and valuable resources (Tsaur & Lin, 2004). Guest (1997) argued that motivating the employee in workplace and practicing him/her knowledge, skills, and abilities which boosts the high quality of human capital and it will generate and develop a competitive advantage for the organization. Organizations will carry out these practices to those employee who significantly contribute to the firm success (Aslam et al., 2016; MacDuffie, 1995). Those companies which believe that human capital really present the competitive advantage; HR practices will really contribute to increase the competences of the employees, so these firms will invest in human capital to increase their productivity and high performance (Guthrie, 2001; Muqadas et al., 2017a).

2.8 *HRM Practices and Employees Productivity*

Several scholars propose that such practices of HRM like team work, greater prudence, self-sufficiency in work place environment employee decision making, pay of performance, motivation enhance the employee productivity (Batt, 2002; Boylan, 2002; Guest, 1997; Hartog, Boselie, & Paauwe, 2004; Muqadas et al., 2017b; Wright et al., 2005). Those employees, who are working according to their job designation, their contribution toward the organization is proactive and these employees give valuable proposal to the organization which ultimately

increase the employee productivity (Arthur, 1994). Banker et al. (1996) suggested that such practice like cross functional team, job design, job alternation, good quality infrastructure of the firm increase the employee productivity.

2.9 *HRM Knowledge Sharing and Performance*

Sharing of knowledge is the relational act in which individual will exchange their information (sending and receiving knowledge) and communicate one's knowledge by cooperative behavior and mutual understanding (Saboor, Ilyas, & Rehman, 2017; Hooff & Weenen, 2004). Researcher proposed that individual employees will be more committed and innovative to those firms where knowledge share process is practiced (Muqadas, Ilyas, & Aslam, 2016; Muqadas et al., 2017a; Saboor et al., 2017).

The researchers have argued that sometimes the firm pay heavy cost on employee attitudes and behavior point of view that's why companies are continuously perceived and experienced by employees as intended. To comprehend the linkages between the classes of knowledge sharing and management. Hayton (2005) describe the individual level mechanism which include motivations, cognition and behavior and interaction between the individuals through the linkage between HRM and cooperate entrepreneurship.

2.10 *HR Practices and Information Technology*

It is a dilemma to comprehend the affect to information technology (IT) and HRM practices because both affect each other. HRM practice supports the IT for implementation of system in their module, completion of the task basically almost relies on the end user behavior. End users are willing and capable to perform the task with advance software application but the key problem is that it is hard to assess the target employee who introduces the new software for creating the advance proper utilization. In that case the HRM practices variables supports the IT (Das & Ara, 2015). On the hand with expansion of IT, some of the activities of HRM is accomplished by the information technology especially in administrative phase (Lawler et al., 2003; Muqadas et al., 2016).

2.11 *HR Practices and Job Satisfaction*

Many researchers and practitioners show the evidence that HRM practices consequences in enhanced degree of job gratification which eventually increase the company's performance. Ileana Petrescu and Simmons (2008) carried out an analysis on HR practices and employees' satisfaction with wages and job satisfaction. The findings and results indicated that some of the HR practices like incentive, compensation, permanent job, job security and reward recognition enhance the job satisfaction and satisfaction with the wages.

2.12 *HRM Perceived Organizational Support (POS) Performance*

Perceived organization assistance is a product of different attitudes and for the long run support of the worker, the perceived organization assistance is connected with the reliability of organizational politics. In different situations the employees will expect that the organization will support them, the perceived organization endorsement will influence the employee to understand the organization motives underlying the treatment (Eisenberger et al., 2001). Perceived organization assistance also influences on the positive action and behavior of the employee toward their job performance because by supporting them employee feels gratitude and react auspiciously to the organization objectives (Aslam et al., 2015; Loi, Yue, & Foley, 2006).

2.13 *HRM Practices & Financial Performance*

HR high performance practices having a strong connection with the firms' financial performance, the research statistically result shoes that HR practices reduce the turnover of intermediate employee and enhance the long-term and the short-term measures of the business financial efficiency. Some scholar conducted the research on the financial performance of the organization in the light of HR practices. As Banker et al. (1996) suggested that HR practices increase the organizational profitability, they examine that there is significant relationship between HR practices and organizational profitability and also, conducted a research on HR practice impact on performance of 101 foreign owned subsidiaries in Russia. The result present support statement that firm think that the investment in HR practices increase the outcome and enhance the performance, instead of thinking expense in the investment of HR practices.

3. Conclusion

The review of the previous literature on HRM practices demonstrated that organization should use attributes and variables of HRM practices like human capital, sharing of knowledge etc. to gain the competitive edge and business profitability continuity in this fast-global market trend. HR best practices is not only enhancing the firm growth but also the best combination of practices give pillars, shade, successive hope to the downsizing organization which are financially disturbed, having poorer productivity, having status quo stages, so much failure facing in market trend. Different organization practicing different combination of HR practices according to their need and requirement like hospital, school, and education having different best practices approaches because they have different organizational structure chart and hierarchies of employee management. The purpose of this intention is that the organization will improve its performance and employee will contribute to the firm objectives through the HR practices systems. The present study is also useful for the future

studies to lessen the risk of general method bias and helpful to assemble and accumulate HR practices and organizational performance data. This paper possibly will assist the strategy makers of the HR professionals to look into HR practices and realign them according to the ambitions of employees.

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Aid Conflict and Human Development in Pakistan

Nadia Tahir *, Pervez Tahir**

Abstract

Does aid cause conflict or promote human development? Pakistan has been a major aid recipient as a strategic US ally since the cold war. Growth followed but with increasing inequalities and social tensions. Soviet-Afghan war brought arms and drugs culture. War on terrorism has produced ethnic and religious fractionalization. The relationship between aid, conflict and human development suffers from reverse moral hazard. On the basis of multinomial log it regression, we conclude that donors' pursuit of strategic agenda creates conflict and low human development. Donors demand diligence and impose conditions to win cooperation and trust, while the recipient struggles with the after effects of aid shocks and waits for more aid to undertake expensive reforms.

Keywords: Conflict, Aid, Military expenditure, Human development, Growth, Pakistan.

JEL Classification: O150

I. Introduction

Eight out of the ten countries with the worst Human Development Index (HDI) have witnessed conflict (Stewart, 1998). These conflicts are due to food shortages and low per capita income and access to social services. According to the scholars like (Nielsen et al., 2011; Nunn & Qian, 2014) an increase in aid increases the occurrence of civil conflicts, but does not affect interstate conflict. The nature and the magnitude of these conflicts have varied, including externally fought wars (interstate) and the internally embedded extremism.

Pakistan has received huge sums of aid but is still a low-income country with a poor HDI. She has witnessed eras of instability arising from varied types of conflict. Kashmir war in the 1960s, the Afghan war in the 1980s and the war on terror in the 2000s were all associated with high aid inflows, particularly from the US. Is Pakistan unsure of her development or more interested in a strategic alliance with the US for aid or is she more concerned with its

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strategic position in the region? Whatever the motivation, the net outcome is donor mistrust and failing human development. This study explores the issue of moral hazard in obtaining aid. It further explores the relationship between aid and conflict on the one hand and the impact of conflict on human development on the other.

Recent literature on aid effectiveness explains how donors use aid as a tool to influence the recipient's policies to suit their political and economic interests (Balla & Reinhardt, 2008). There is considerable evidence that economic inequalities and civil conflicts in developing countries increase as an outcome of pursuing donors' agenda (Balla & Reinhardt, 2008; Collier, 2007; Nielsen et al., 2011). Aid may generate growth, but without development (Easterly, 2002). It increases debt burden, military expenditure, social tensions, inequalities and conflicts (Murshed & Sen, 1995).

One set of studies sees the failure of aid as an agency problem. The moral hazard issue starts with the assumption that agents suffer from commitment dilemma and weak institutional support but ignore the structure and pattern of aid allocation of the principal. Donor errors and recipient errors create moral hazard and prisoner's dilemma (Garriga & Phillips, 2014; Hawkins et al., 2006; Kang & Meernik, 2004; Lipton, 1986).

There is another view that the recipient is not diligent about the prescribed policies of the donors. Agents commit to aid conditionality, but start pursuing their strategic interest. Agents also have information that is not available to the principal. This leads to the failure of the agenda and prolongation projects entailing extra cost. Aid fails because developing countries suffer from aid fungibility and moral hazard (Eisenbeis, 2004; Hawkins et al., 2006; Ouattara, Amegashie, & Strobl, 2009; Podszun & SpringerLink, 2011; Hawkins et al., 2006; Holt, 2011; Isopi & Mattesini, 2010). Asymmetric information and lack of coordination on the part of the recipient is used as a reason for unmet donor agenda (Compte, 2002; Isopi & Mattesini, 2010; Kono, Montinola, & Verbon, 2015). An important point is whether donors' strategic and economic policies cause moral hazard or it is the myopic attitude of the recipient responsible for the failing development agenda (Hawkins et al., 2006; Kang & Meernik, 2004; McLean, 2015; Merz, 2012).

The agent's point of view is different from the principal. Donors demand due diligence and the agent suffers the consequences. Donors overlook flaws in aid policies and blame the recipient with agency problems (Claudia, 2009). Agents cannot afford to have an expensive institutional culture and structure. This institutional bias is the major hindrance in aid effectiveness. The agent is less responsible in the use of aid, which appears as easy money. Due to strategic and political alliance, the recipients suffer from the aid shocks in the form of weak governments and increased military expenditures. It also substitutes social

sector spending with aid money. The outcome is flat or negligible spending on human development. Martens (2002), Hawkin (2007) and Amegashie, Ouattara, and Strobl (2007) build a signaling mechanism for agents because the principal has asymmetric information for the insurmountable task of achieving its interests.

Section II reviews the literature on aid effectiveness. Section III constructs a simple pay off matrix to show that giving aid is in the interest of the donors, a case of reverse moral hazard. The methodology and the data sources are discussed in Section IV. Section V presents the descriptive analysis and applies the methodology to the Pakistan context to generate empirical findings. The last section puts together the conclusions of the paper.

2. Literature Review

President US Truman in 1949 announced economic aid for the developing countries to help them in overcoming the structural issues and he declared it as the “fair deal” Escobar and West (1995). This interplay of “too little” development aid and rising expectations caused conflict and created a governance issue which governments cannot deal. Amegashie et al. (2007) found an inverse relationship between the proportion of tied aid and the level of the recipient’s governance. They find that the amount of tied aid decreases with an improved level of moral hazard (governance). Burnside and Dollar (2004) find a positive relationship between aid and economic growth in the short run. Aid is merely an income transfer that cannot increase production, which depends on a set of economic policies and the use of income. According to Bornschier, Chase-Dunn, and Robinson (1978), aid increases growth in the short run, but reduces growth and creates income inequality in the long run. Aid announced early and dispensed rapidly can hasten stabilization, while aid offered late has the opposite effect (Casella & Eichengreen, 1996). Paying no heed to local realities and overambitious plans are reasons for failing to achieve the objectives of aid (Sachs, 2005). Aid may focus on growth and strategic objectives but ignores its effects on other sectors. Objectives may be contradictory in nature and reluctance in implementation is the reason for failure. Radelet (2006) discusses the multiple motivations and objectives of aid, some of which conflict with each other.

Aid has enlarged government bureaucracies, perpetuated bad governments, enriched the elite in poor countries, or is just wasted. Roodman (2007) explains that aid is not a homogenous factor. Aid programs vary from food aid to judicial reform to building infrastructure. It is not easy to find the overall effectiveness of aid and policy in an economy. Savings, inequality and governance are more decisive factors than aid Stiglitz (2010). It fails in some situations, reduces poverty in others and prevents bad economic performance in still others. Easterly and Pfutze (2008) pin the failure of aid programs on lack of transparency, selectivity,

specialization, fragmentation and minimization of the overhead costs. Donors provide limited information on expenditure and costs of aid projects, which makes it difficult to determine success. Claudia (2009) finds that donors do not follow best practices.

Most of the time they struggled to follow the criterion of best practice laid down in the Paris Declaration of 2005. They have no understanding of the political conditions of developing countries. Furthermore, these funding agencies rely on bureaucrats. These delegating agencies measure their objectives by money disbursed rather than service delivered (Easterly, 2002; Hawkins, 2007). The principal and the agent are assumed to be the two pillars that have to behave in harmony for achieving objectives. It is misleading to assume that the government is a bundle of individuals, rational enough to achieve their objectives. In a society lacking shared beliefs, norms and values, rules are distorted in favor of the ruling elite. It is hard to set objectives and harder to achieve them (Gintis, 2007). Third-party evaluations and establishing a feedback link have not worked either. Donors can dispense with aid programs at any time for any reason, causing instability (Easterly, 2003). Eisenbeis (2004) argues that omissions and inconsistencies in policies that have conflicting outcomes for those not directly involved in implementation can be the reason for agency problems.

Many donors provide significant aid to their former colonies as a means of retaining some political influence (Alesina & Dollar, 2000). Collier and Hoeffler (2004) analyze the effect of civil conflict on aid effectiveness. According to them, aid works in a good policy environment after a few years of civil conflict. Claudia (2009) attempted to understand why foreign aid failed to achieve its objective. Aid can be more effective if the donors follow the best practices and most of the time donors struggled to follow the criterion of best practice laid down at Paris declaration in 2005. According to her, bilateral aid agencies performed better as compared to the multilateral organizations because these organizations have no understanding of the political conditions of these very countries. These funding agencies rely on bureaucrats who are highly inefficient in achieving the principal objectives. Isopi and Mattesini (2010) raised the issue of the implementation of aid projects. According to the asymmetric information and lack of proper incentives to the agent inundated the effectiveness of development assistance. Recipients use their agenda rather than chasing the objective of the donor create an issue of moral hazard and adverse selection. Conditionality is the solution to tie down the donor to meet diligently donor's agenda.

2.1 *A Case of Reverse Moral Hazard*

Principal and agent are the two pillars who have to behave in harmony for achieving the objective. It is misleading to assume that government is a bundle of individuals, rational enough to achieve their objective. In a society which lacks a shared belief, norm, values and

rules are distorted in favor of the ruling elite. It's even difficult to set a objective and even harder to achieve it (Abebe et al., 2020). Eisenbeis (2004) argues that omissions and inconsistencies in policies which have conflicting outcomes for those who are not directly involved in implementation can be the reason for agency problems. The time required for implementation and legislation due to political polity is another reason for the agency problems.

Contrary to the standard aid analyses, Pakistan is a case of reverse moral hazard. We create a simple payoff matrix of aid allocation with notional numbers to find who creates moral hazard. There are two strategies for donors, either to give or not to give aid. Pakistan, the recipient, has three ways to respond: if it accepts aid, then either to spend on arms imports or to spend on human development. Currently, Pakistan spends almost two per cent of GDP on the social sector (education and health) and 3 per cent on defense. Pakistan has received, on average, four per cent of GDP as net official development assistance. Aid is fungible for the recipient, which creates fiscal space to increase the arms imports. Aid substitutes rather than supplement the allocation to the social sector. According to Collier (2009), fragile states fail to reduce military expenditure, which reduces social welfare. Table 1 shows our simple exposition.

Table 1
Payoff Matrix of Aid Allocation to Pakistan

<i>Donors</i> \ <i>Pakistan</i>	<i>Accept aid</i>	<i>Arms imports</i>	<i>Human development</i>
Not to Give Aid (S1)	(0, 0)	(+2%, -2%)	(+1%, -2%)
Give Aid (S2)	(-4, +4)	(+1, -1)	(+1, -1)

Not to give aid (S1) means to fall in arms exports and related tax revenue, besides losing a strategic partner. It has negative implications for the donor's political and economic interest. For the recipient, S1 means a budget and foreign exchange constraint, forcing a reduction in arms imports and fiscal pressure on human development spending. So S1 strategy is good neither for the donor nor the recipient. If the donor gives aid (S2), there is a shift of resources from the donor to the recipient, relaxing its budget constraint. This aid will create a strategic and economic link between the donor and the recipient necessary for human development. Now if the donor plays strategy 2 (give aid), it always does better than strategy 1 (give no aid), no matter what the recipient opts to do. This means the recipient will always go for aid and this suits the donor as well. We can infer that giving aid creates a moral hazard issue for the donor, not the recipient, as the literature invariably suggests. In fact, there is a reverse moral hazard issue.

3. Methodology and Data

Hoeffler (2019) and McGillivray and Morrissey (2000) used a single-equation empirical model to determine the impact of conflict on human development index (HDI) and they found that aid is not enough to offset the negative effect of uneven development and cause conflict. In this paper, we used constrained optimization model where objective function is to maximize the HDI. HDI is seen as a function of GDP Per Capita and Social Sector Development. The social sector is defined as government expenditure on education and health.

3.1 Objective Function:

Maximization of Human Development = (social sector spending, GDP per capita)

3.1.1 Subject to Constraints

The government faces a budget constraint. Aid appears as a revenue source to soften this constraint. The budget constraint is given by

$$Y + A \geq ps S_1 + pgG_2$$

Where Y is the total revenue, A is an aid, S is social sector spending and G is GDP per capita. The recipient seeks to maximize human development and tries to get as much aid as it can. Aid is usually tied to the donors' objectives, which have economic and political implications. We hypothesize that failure in curtailing the military expenditure results in conflict in society. The total amount of aid received provides a proxy for the donors' agenda, while the social sector spending and GDP per capita serve as a proxy for human development.

3.2 Variables and Data

The main variables of this study are conflict, aid, social sector spending and GDP per capita growth. Conflict is defined as the violent attack on human and physical capital for capturing the state or for territory. The period covered is 1961-2018. Conflict (yt) is the focus variable, with conflict type ranked from 0-4 discrete categories: 0 = no conflict, 1 = interstate conflict, 2 = internal ethnic conflict, 3 = simultaneous occurrence of internal and external conflict and 4 = internal ethnic and religious conflicts. The variable aid includes all the grants and loans given to Pakistan during 1961-2018. The data was taken from Statistical Appendix to Pakistan Economic Survey, 2011 and the relevant past issues.

This is also the source of data on health and education expenditure. The source of data for GDP growth per capita is Pakistan Bureau of Statistics. Data on conflict was taken from Harbom and Wallensteen (2010). Military expenditure data was obtained from SIPRI (2011) and arms import data was downloaded from World Development Indicators (2020).

3.3 Multinomial Logit Model

The multinomial logit is used for discrete choice data where the values of dependent variable have no natural order. It is used to explain the characteristics of the various choices but not as alternatives. It attempts to explain the relative effect of explanatory variables on the different outcomes. One of the outcomes is arbitrarily chosen as the base outcome. Errors follow identically, independently distributed (IID) assumption.

$$y_{ij} = \alpha_0 + \beta_{ij}x_{ij} + \mu_{ij}$$

$$\text{Where } y_i = \begin{cases} 1 & \text{if } y_i^1 > y_i^2 \dots y_i^j \\ 2 & \text{if } y_i^2 > y_i^1 \dots y_i^j \\ \vdots \\ m & \text{other wise} \end{cases}$$

$$P_{ij} = \frac{e^{x_{ij} \beta_j}}{\sum_{j=1}^4 e^{x_{ij} \beta_j}}$$

where Pr is the probability of 'I' conflict incidents in a set of possible discrete time choice categories, with 'j' alternatives, x_{ij} is a vector of measurable characteristics that determine alternatives j; β_{ij} is a vector of statistically estimable coefficients. Odd ratios can be described as (P_{nj}/p_{ni}) . It becomes more and more complex when the number of alternative choices increases. Our purpose is to model probabilities for the M different outcomes in such a way that they sum up to unity.

$$P(y_{it} = 0) + P(y_{it} = 1) + P(y_{it+1} = 2) + P(y_{it+2} = 3) + P(y_{it+1} = 4) = 1$$

To avoid serious bias, this model assumes that errors are correlated across choices, so that various conflict incidents are independent of each other.

4. Analysis

Table 2 shows the relationship between total aid, bilateral and multilateral aid, military expenditure and incidents of conflict. Parentheses indicate the values of coefficient of variation. Over the years, the number of conflict events have increased and reached the peak during the Musharraf regime (1999-2007). Military expenditure as percentage of GDP was

the highest (6.1) during the regime of Zulfikar Ali Bhutto. Since then it has been declining, reaching 3.3 per cent of GDP, the level during Field Marshal Ayub's regime (1961-69).

Table 2

Relationship between Conflict, Aid and Military Expenditure (% of GDP)

Regime	Incidents of Conflict (No.)	Military Expenditure as % of GDP	Total Aid as % of GDP	Bilateral Aid as % of GDP	Multilateral Aid as % of GDP
Field Marshal Ayub Khan [1961-1969]	1	4.9 (0.228)	8.49 (0.22)	6.62 (0.3102)	0.87 (0.4702)
General Yahya Khan [1970-1972]	2	6.5 (0.119)	4.60 (0.33)	3.44 (0.3177)	0.63 (0.4117)
Zulfikar Ali Bhutto [1973-1977]	4	6.1 (0.1005)	6.17 (0.30)	2.46 (0.1776)	1.01 (0.2811)
General Zia-ul-Haq [1978-1988]	3	6.3 (0.1129)	6.96 (0.15)	3.87 (0.1358)	3.72 (0.1442)
Benazir Bhutto and Nawaz Sharif [1989-99]	7	6.1 (0.125)	4.25 (0.26)	1.08 (0.3008)	2.04 (0.1985)
General Pervez Musharraf [2000-2007]	15	3.9 (0.074)	2.53 (0.29)	0.58 (0.7216)	1.46 (0.2037)
Asif Ali Zardari [2007-2013]	13	3.4 (0.075)	3 (0.45)	0.46 (0.6132)	1.34 (0.6053)
Nawaz Sharif [2013-2018]	11	3.7 (0.059)	3.92 (0.43)	2.60 (0.58)	1.57 (0.26)

Note: Coefficient of variation in parentheses

Source: Author's calculation based on the data from various issues of Economic Survey of Pakistan

Aid as percentage of GDP was the highest during General Ayub's regime, which declined sharply during General Yahya's regime to 4.6 per cent of GDP. Under Bhutto's regime it increased again and was recorded at 6.2 per cent of GDP. During General Zia's regime, it again reached 7 per cent of the GDP. Aid remained consistent during military regimes in Pakistan and least inconsistent during the Zardari's regime. Military expenditure declines with the aid allocations. Over the years the proportion of bilateral aid has declined and multilateral aid has increased. This means more loans and limited grants. Failure in implementing the aid agenda thus has a cost for Pakistan. In Table 3, we see that higher GDP growth per capita coincides with higher levels of aid and higher levels of aid coincide with military authoritarian regimes. Annual average GDP growth per capita was the highest during General Ayub's regime and the lowest during General Yahya's regime. Domestic savings have always been low, which makes the case for aid. But aid has supplanted, not supplemented, domestic saving. As percentage of GDP, gross domestic saving has been lower during the high aid regimes.

Table 3
Human Development and Macro Economy

Regime	GDP Growth Per Capita (Annual %)	Gross Domestic Saving (% of GDP)	Poverty Ratio (%)	Annual Average Social Sector Spending (% of GDP)
Field Marshal Ayub Khan [1961-1969]	4.5 (0.5)	9.91 (0.24)	44.5	0.99 (0.31)
General Yahya Khan [1970-1972]	-2.1 (-0.1)	9.44 (0.08)	46.53	1.56 (0.17)
Zulfikar Ali Bhutto [1973-1977]	2.2 (0.8)	8.03 (0.26)	30.68	1.53 (0.14)
General Zia-ul-Haq [1978-1988]	1.8 (0.9)	8.15 (0.24)	45.2	1.77 (0.23)
Benazir Bhutto and Nawaz Sharif [1989-99]	1.3 (1.3)	14.76 (0.15)	33.2	2.29 (0.06)
General Pervez Musharraf [2000-2007]	2.9 (0.8)	16.01 (0.07)	26.4	2.02 (0.14)
Asif Ali Zardari [2007-2013]	2.1 (0.2)	11.22 (0.04)	37.5	2.08 (0.08)
Nawaz Sharif [2013-2108]	2.95 (0.20)	6.58 (0.26)	24	3.18 (0.08)

Note: Coefficient of variation in parentheses

Source: Author's calculation based on the data from various issues of Economic Survey of Pakistan

Social sector spending remained almost flat and least consistent during Ayub, Zia and Musharraf regimes.

4.1 *Empirical Results*

In the results (Table 4), the iteration log indicates that our model explaining the relationship between conflict and aid, GDP per capita growth and social sector spending converged after seven iterations. The log likelihood was -51.488 and the likelihood ratio chi square was 40.35 with a p-value less than 0.0001. It can be interpreted as it fits well.

$$\ln\left(\frac{\text{Interstate Conflict}}{\text{No Conflict}}\right) = \alpha + \beta_1 \text{GDP Per Capita Growth} + \beta_2 \text{Social sector Spending} + \beta_3 \text{AID} \dots \dots \dots \text{Eq (1)}$$

$$\ln\left(\frac{\text{Ethnic Conflict}}{\text{No Conflict}}\right) = \alpha + \beta_1 \text{GDP Per Capita Growth} + \beta_2 \text{Social sector Spending} + \beta_3 \text{AID} \dots \dots \dots \text{Eq (2)}$$

$$\ln\left(\frac{\text{Internal, External}}{\text{No Conflict}}\right) = \alpha + \beta_1 \text{GDP Per Capita Growth} + \beta_2 \text{Social sector Spending} + \beta_3 \text{AID} \dots \dots \dots \text{Eq (3)}$$

$$\ln\left(\frac{\text{Internal Conflict}}{\text{No Conflict}}\right) = \alpha + \beta_1 \text{GDP Per Capita Growth} + \beta_2 \text{Social sector Spending} + \beta_3 \text{AID} \dots \dots \dots \text{Eq (4)}$$

Equation 1 can be explained in Table 4 as the impact of interstate conflict in relation to no conflict in Pakistan. β 's are the regression coefficients which can be interpreted with respect to the base 2 category. In the table 4 below, the iteration log indicates that in 9 iterations model converged. The log likelihood (-54.668307) with a p-value < 0.0000 tells us that our model as a whole fits significantly better than an empty model.

One unit increase in GDP per Capita income is associated with 0.191 unit decrease in the relative log odd of interstate conflict vs. no conflict in Pakistan whereas Economic assistance (Aid) increases interstate conflict in comparison to no conflict by 0.00016 unit. In case of Social Sector Spending, one-unit increase will decrease relative log odd of interstate conflict by 0.98.

The relative log odd ratio of all four categories of conflict is negatively related with social sector spending and GDP growth per capita and it increases with aid. This means that aid increases the probability of conflicts and decreases social sector spending, while GDP growth per capita increases the probability of conflict in Pakistan. The worst scenario is in category 4, which is a combination of ethnic and religious conflict log odd. In most of our results, GDP per capita and social sector spending log odd ratios are insignificant. Aid remained significant in all four categories. We conclude that aid causes conflict. The negative sign of GDP per capita and social sector spending shows that decrease in these values may also be a source of conflict.

Number of obs	= 58	LR chi2 (8)	= 60.41
Pseudo R2	= 0.3559	Prob > chi2	= 0.0000
Log likelihood	= -54.668307		

Table 4
Multinomial Logistic Regression

Variables	(1) Interstate	(2) Ethnic	(3) Internal+ external	(4) Internal
Gdpp	-0.191 (0.175)	-0.157 (0.203)	-0.633* (0.358)	-0.960 (0.855)
Econaid	0.0155* (0.00632)	0.0768*** (0.00744)	0.0147*** (0.00123)	0.0575** (0.00507)
Sss	-0.981 (0.837)	-0.478 (0.456)	-0.637* (0.34)	-0.223* (0.0149)
Constant	-1.947 (2.434)	-4.864 (3.101)	-4.215 (5.211)	-63.33 (43.40)
Observations	58	58	58	58

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The relative log odd ratio of all four categories of conflict is negatively related with social sector spending and GDP growth per capita and it increases with aid. This means that aid increases the probability of conflicts and decreases social sector spending, while GDP growth per capita increases the probability of conflict in Pakistan. The worst scenario is in category 4, which is a combination of ethnic and religious conflict log odd. In most of our results, GDP per capita and social sector spending log odd ratios are insignificant. Aid remained significant in all four categories. We conclude that aid causes conflict. The negative sign of GDP per capita and social sector spending shows that decrease in these values may also be a source of conflict.

4.2 *Relative Risk Ratios*

The relative risk ratio is the exponential value of the coefficient relative to the base outcome, given that other model variables are constant. In our model, base outcome is no conflict. If there is one unit increase in conflict, the risk ratio of Kashmir conflict relative to no conflict would be expected to increase aid by 1.003, other variables being constant. The same is the interpretation of GDP growth per capita. The relative risk ratio for one unit increase in GDP growth per capita for conflict in Kashmir relative to no conflict in Pakistan, given that the other variables are constant, will decrease the GDP per capita growth rate by a factor of 0.791 and decreases the social sector spending by 0.078. Kashmir conflict increases aid and decreases the social sector spending and GDP growth per capita.

The worst scenario is the simultaneous occurrence of internal and external conflicts. In this case, social sector spending decreases by a factor of 0.3238 and GDP growth by a factor of 0.527779. The relative risk ratio suggests that the expected risk of decrease in social sector spending is the highest in case of ethnic conflict in Pakistan. The effect of GDP per capita growth and social sector spending is statistically not different.

4.3 *Marginal Effects*

Marginal effects were estimated at the mean value of aid, GDP growth per capita and social sector spending on alternative outcomes. Intrastate conflict (ethnic and religious) has the highest predicted probability of 0.43.

$y = \Pr(\text{Conflict} = \text{Interstate Conflict}) (\text{predict, outcome (1)}) = 0.1879977$

$y = \Pr(\text{Conflict} = \text{Intrastate Conflict (Ethnic)}) (\text{predict, outcome (3)}) = 0.2079527$

$y = \Pr(\text{Conflict} = \text{Interstate and Intrastate (Ethnic)}) (\text{predict, outcome (4)}) = 0.0281421$

$y = \Pr(\text{Conflict} = \text{Intrastate (Ethnic, Religious)}) (\text{predict, outcome (5)}) = 0.4280558$

$y = \Pr(\text{Conflict} = \text{no conflict}) (\text{predict, outcome (2)}) = 0.1478517$

5. **Conclusion**

This study attempts to explain the moral hazard issue in the context of aid and conflict in Pakistan. Donors usually give aid for their agendas and demand due diligence with little understanding of the repercussions on the poor recipient. Aid softens revenue constraint of the recipient, but fragile governments are unable to spend enough on human development. We represented this situation by a simple two actor game to suggest that the donor decision of giving aid creates moral hazard. As arms imports and military expenditure of the recipient are in the interest of the donors, they do not opt for the strategy of not to give aid. It creates a situation of reverse moral hazard. Our finding is aligned with the results of Collier (2007, 2009) that reducing military expenditure is the least important interest of the donors and that aid money is the source of arms imports. Aid does not reduce poverty.

We further conclude that aid relaxes the revenue constraint but takes away the power to pursue indigenous policymaking. Our results are in agreement with Compton (2002) that missing public signals makes co-operation difficult. In the case of Pakistan, we do not find any deviation from the strategic behavior and past observation paved the way for continuous co-operation on the strategic front. It is the donor who can make or break the relationship and can deviate from the strategic policy without informing the recipient and without facing any punishment. This type of deviation leaves a vacuum that encourages conflict in society.

Aid fails to increase social sector spending and most peaks of aid were marked with inconsistent allocations to the social sector and low domestic savings. It increases the probability of conflict and decreases the probability to increase GDP per capita. In pursuing donors' strategic agenda, aid impacts perversely on conflict, which inhibits human development. The inflows of aid are highly correlated with arms imports and military expenditure, which does not necessarily improve the conflict resolution capability. Donors impose conditionality but fail to deal with aid fungibility. Our study confirms the findings of Collier (2009) and McGillivray and Morrissey (2010) that aid increases the incidence of conflict in developing countries.

This result is also aligned with the previous work done by the Tahir (2017) that aid cause conflict in underdeveloped countries. However, the intensity of conflict directly related to the social sector deficit. Aid aggravates ethnic and religious conflict. It confirms aid is seen as a foreign agenda and create governance issue. This situation calls for a better policy response.

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Appendix

I. Multinomial Logit Regression Model Results

Log-Lik Intercept Only	-84.874	Log-Lik Full Model	-54.668
D(38)	109.337	LR(12)	60.411
		Prob > LR	0
McFadden's R2	0.356	McFadden's Adj R2	0.12
Maximum Likelihood R2	0.647	Cragg & Uhler's R2	0.684
Count R2	0.397	Adj Count R2	0.054
AIC	2.575	AIC*n	149.337
BIC	-44.96	BIC'	-11.685

Source: Authors' Calculation

II. Marginal effects of conflict

mfx, predict (pr outcome(0))

Variable	dy/dx	Std. Err.	Z	P> z 	[95% C.I.]	X
Aid	-0.00049	0.00013	-3.69	0	-0.00075 -0.00023	1756.69
ssspend	0.392442	0.22343	1.76	0.079	-0.04547 0.830357	1.80708
Gdpper	0.041933	0.03374	1.24	0.214	-0.0242 0.108067	2.60379

Source: Authors' Calculation

mfx, predict (pr outcome(1))

Variable	dy/dx	Std. Err.	Z	P> z	[95% C.I.]	X
Aid	0.000444	0.00019	2.33	0.02	0.00007 0.000817	1756.69
ssspend	-0.49903	0.32555	-1.53	0.125	-1.1371 0.139047	1.80708
Gdpper	-0.03673	0.04461	-0.82	0.41	-0.12417 0.050705	2.60379

Source: Authors' Calculation

mfx, predict (pr outcome(2))

Variable	dy/dx	Std. Err.	Z	P> z	[95% C.I.]	X
Aid	1.55E-05	0.00014	0.11	0.914	-0.00027 0.000298	1756.69
ssspend	0.09949	0.24101	0.41	0.68	-0.37288 0.57186	1.80708
Gdpper	0.019496	0.03507	0.56	0.578	-0.04924 0.088233	2.60379

Source: Authors' Calculation

mfx, predict (pr outcome(3))

Variable	dy/dx	Std. Err.	Z	P> z	[95% C.I.]	X
Aid	1.66E-05	0.00007	0.25	0.803	-0.00011 0.000147	1756.69
ssspend	0.013658	0.12266	0.11	0.911	-0.22676 0.254074	1.80708
Gdpper	-0.02381	0.01722	-1.38	0.167	-0.05756 0.009935	2.60379

Source: Authors' Calculation

mfx, predict (pr outcome(4))

Variable	dy/dx	Std. Err.	Z	P> z	[95% C.I.]	X
Aid	1.21E-05	0.00003	0.38	0.708	-5.1E-05 0.000075	1756.69
ssspend	-0.00656	0.02077	-0.32	0.752	-0.04727 0.034148	1.80708
Gdpper	-0.00088	0.0023	-0.38	0.702	-0.00539 0.003633	2.60379

Source: Authors' Calculation

Impact of Audit and Remuneration Committee on Firm Performance: Evidence from Cement and Textile Firms of Pakistan Stock Exchange

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Abstract

The core purpose of this study is to empirically analyze the impact of audit and remuneration committees on the performance of the cement and textile firms listed on Pakistan Stock Exchange (PSX) for years 2012-2018. The methodology- The study focuses on the impact of attributes of audit and remuneration committees on firm performance. A simple random sampling technique is used to collect the secondary data from the cement and textile annual reports of the 63 cement and textile firms. The findings of the study support the postulation of agency theory and stewardship theory in the context of cement and textile industry of Pakistan. The study provides valuable inputs especially for the strategies of audit and remuneration committees to achieving the desired financial outcomes. Audit committee attributes have a positive and significant impact on firms return on asset (ROA) and return on equity (ROE). Likewise, remuneration committee's attributes also have positive and significant impact on return on asset (ROA). However, the relationship turns into insignificant when it comes to ROE which may be possible due to the fact that most of the firms in the sample are family-owned which do their best for their self-interests. It is concluded that board members having accounting and financial expertise helps in executing the compensation plan and improve the quality of financial information reporting which positive implications. The study also recommends that they should focus on the busyness of members on board, size of the board, independent members and, stakeholders to improve firm performance.

Keywords: Audit committee, Remuneration committee, Firm performance, Pakistan stock exchange.

JEL Classification: L210

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1. Introduction

In a country like Pakistan, the economy of which is in the developing stage every corporation seeks/wants to increase their performance for this purpose they should generate and implement productive strategies to gain market shares. So, behind the success of any corporations, corporate governance contributes significantly in accomplishing desire objectives. The function of CG includes control the system, design standard, policies and procedures by higher, so organizations should be coordinated, directed or controlled with proper corporate governance (Owolabi & Dada, 2011).

Adopting better corporate governance organization should have to develop and maintain the audit committee for achieving the financial objective because it is a major part of the corporate governance to control accounting and financial activities of firms. It has an important duty of observing and checking the progress of corporate financial performance and financial reporting to increase the shareholder wealth and try to decrease the personal interest of the manager (Amer, Ragab, & Shehata, 2014; Kallamu & Saat, 2015; Bansal & Sharma, 2016). It is also explained by Herdjiono and Sari (2017) that in competitive world, company performance can be measured by the effectiveness of audit committee. As an illustration, executive management of audit committee, their remuneration, distribution of work, and independence of the auditor are free from the biasness between auditors whether internal or external and high-level management. Whatever the corporation has accounting policies, AC should analyze and follow those accounting policies (Zabri et al., 2016).

Remuneration Committee (RC) is one of the important boards in an organization by taking a different decision particularly in monetary and non-monetary rewards which includes salary, bonus, health insurance as well as the pension of firm's executives. It also performs some other different activities like monitoring and advising the board members in the form of rewards and salaries that are determined by their experience, skill and qualification (Mintah, 2016).

In modern economies, the performance of corporation is an important aspect for any economy because it shows the growth and sustainability of any country and also benefit for their stakeholders. From the last few years the economic condition of Pakistan is not stable because of the political environment which effect the corporate sector in the form of firm performance. For this purpose, quality of audit and remuneration is considered and is found to be not up to satisfactory level in most of countries including Pakistan. So empirically, the association between audit, remuneration and firm performance provides debatable information in developed countries, most of the studies represents that developed countries have great CG structure in the light of audit and remuneration committee, proper implementation

of financial activities, protection of ownership and investors investment opportunities that is why they achieve the desired financial firm performance. While in developing countries there were few studies Ansari, Gul, and Ahmad (2017); Aryan (2015); Bansal and Sharma (2016); Imani, Homayoon, and Zamani (2016); Khan, Ali, and Boudiab (2017); Kanapathippillai, Johl, and Wines (2016), Kallamu and Saat (2015) and Yasser, Al-Mamun, and Suriya (2015) conducted in audit and remuneration and these studies focus on the audit and remuneration committee separately but the gap remains in the area of audit and remuneration committee on firm performance and did not find any literature in the context of Pakistan so this study shows an interest by considering the impact of audit and remuneration committee on firm performance by considering the cement and textile firms that are listed in Pakistan stock exchange. These two sectors have great importance and contribution to the economy of Pakistan in the area of infrastructure and fabrication. The study has two overarching objectives. First, to identify the impact of the audit committee on firm performance. Second, to examine the impact of the remuneration committee on firm performance.

2. Literature Review

2.1 Theoretical Exposition

2.1.1 Agency Theory

This study is supported by agency theory formulated by Jensen and Meckling (1976). This theory is also considered by Fama (1980) and both authors Fama and Jensen (1983) take an interest by providing information about agency theory. According to the theory, there are two parties involved in agency theory that is the owner (principal) and the manager (agent). The objective of the owner is to maximize their return on investment and expect from managers to perform to their interest but if the manager works for his own interest then it will create a conflict of interest. It clarifies that BODs plan and initiate a participative role in the achievement of the firm's objectives. Zahra and Pearce (1989) explain that if owners and management do not communicate the information with each other then how firms can achieve their objective.

Agency theory also explains the financial rewards given to the manager to maximize the shareholders interest to reduce the financial losses. This type of reward needs a plan where the management of the corporation receive shares with a reduce price to increase the interest of management that are connected with other shareholders so by the help of this, management will increase firm performance in the long run (Donaldson & Davis, 1991; Jensen & Meckling, 1976).

2.1.2 Stewardship Theory

Davis, Schoorman, and Donaldson (1997) analyzed that there is link a between shareholders and managers who operate for the betterment of the organization. Stewardship theory explains that managers of firms perform duties for the betterment of owners which will increase the performance of the firm in long run whilst in agency theory agents only focus on their self-interest. This theory also explains that if management has more power for doing the activities it means that they are trust worthy to run corporations.

Specifically, steward focuses on ultimate goals which will be better for the advancement of firms. The difference between these two theories is that agency theory pays particular attention to external satisfaction which is measured by market value to gain motivation, and the required achievement from the market to create a reputation in the market. Besides, the manager in stewardship analyzes that if an organizations financial performance is achieved, the individual can be satisfied. On the other side, this theory also relates that there should be proper monitoring and controlling function to design the structure of the organization so that can be maintained.

2.2 Theoretical Implications

The present study is explained in the light of two theory that is agency and stewardship theory to understand their implication. Mainly agency theory highlights the association between principal and agent. In agency theory, there is a conflict between the goal of principal and manager which will affect the performance of the firm. The principal is considered as the owner tend to maximize the return to their shareholders in the long run and agent have usually a role in the operation of firms' activities for their own interest. Due to these reasons conflict arises and firm performance is affected. On the other hand, the stewardship theory highlights both parties' agent and principal based on psychological and social perspectives. Stewardship theory realizes that if a firm achieves the desire goals and objectives, the need and utility of personnel will be achieved.

2.3 Audit Committee and Firm Performance

Ashari and Krismiaji (2020) explain that audit committee characteristics have positively affected the performance of firms. Puwanenthiren (2020) argues that audit committee attributes have a significant correlation with the performance of firms. Chou and Buchdadi (2017) noted that to increase the firm performance; better operational activities should be designed for this purpose the number of AC members has a great influence on the firm. In a country like Australia , results suggests that the audit committee has increase change in firm

performance (Gani, Wijeweera, & Eddie, 2017). Srinivasa and Palaniappan (2016) study show that board independence, audit committee consolidated attributes add to the performance of different firms. The association among aggregate score and the firm's performance is observed to be insignificant & positive in India. Hamdan, Sarea, and Reyad (2013) study outcome declare a significant & positive association among AC, financial outcomes and stock performance. Similarly, Al-Matari et al. (2012) also explains that AC and firm performance have a positive affiliation between them.

H1: There is a positive impact of AC on firm performance

2.4 *Size of AC and Firm Performance*

In 2012, PCCG acknowledge that in AC there should minimum of three members. Although Khan, Ali, and Boudiab (2017) consider the audit committee and results represents that ACS and firm performance have an insignificant relationship between them which means that ACS did not increase the value of the firm. Similarly, Al-Matar, Al-Swidi, and Fadzil (2014) finding study indicates that ACS and firm performance have a positive insignificant connection between them. Kipkoech and Rono (2016) study results represent that ACS has a significant effect on the performance of firms. Al-Matari et al. (2012) study outcome was found that ACS and firm performance have a negative association among variables.

Ho: There is a negative impact of ACS on the performance of the firm

H1: There is a positive impact of ACS on the performance of the firm

2.5 *Meeting of AC and Firm Performance*

ACM is a very important aspect of the audit committee in the area of corporate governance. Khan, Ali, and Boudiab (2017) results represent that ACM and firm performance have a significant positive association between them. Similarly, Amer, Ragab, and Shehata (2014) study find that ACM is positive and significantly related to firm performance. Bansal and Sharma (2016) highlighted that frequencies of ACM have an insignificant impact on the performance of firms. Al-Matari et al. (2012) find that ACM represents an insignificant association with the performance of the firm. Al-Mamun et al. (2014) gives a point of the view about the daily meeting of AC which represents that regular meetings of AC could help to decrease the agency problems and also provide effective and timely information to investors.

Ho: There is an insignificant impact of ACM and performance of firms

H1: There is a significant impact of ACM and the performance of firm

2.6 *Independence of AC and Firm Performance*

The presence of an independent director in AC represents better monitoring in the firms audit and financial reporting affairs and this independent of board members brings a strong connection with firm affairs to achieve the desire financial objectives (Al-Najjar, 2014). Bansal and Sharma (2016) study represents that ACI shows a significant positive association with the performance of firms. Kallamu and Saat (2015) results shows that independence of AC enhances the performance of firms. Al-Matari et al. (2012) represent that ACI does not influence on the performance of firms in Saudi Arabia. Similarly, Al-Matari et al. (2014) in Oman focusing characteristics of audit and executive directors on performance of firms show that BI has a significant negative association with the performance of firms.

Ho: There is a negative impact of ACI on the performance of firms

H1: There is a positive impact of ACI on the performance of firms

2.7 *Financial Expert or Literacy and Performance of firms*

Hamid and Aziz (2012) said that in every organization directors of AC needs financial and technical expertise to design, plan and implement the affair of audit and finance which will help to support external auditor in board meetings. So, from results, the study found that AC financial expert has significant and also a positive impact on the performance of firms. Another study conducted by Hamdan, Sarea, and Reyads (2013) results explains that ACFL has a positive relationship with the firm's performance. Bouaziz (2012) study concluded that firm performance increases if the firms have a majority of directors having financial experts in the AC board.

H1: There is a significant impact of ACFL and the performance of firms.

2.8 *Remuneration Committee and Performance of Firms*

In Pakistan, there is a lack of studies conducted on attributes of the remuneration committee with firm performance but worldwide, studies are empirically conducted but limited. In the view of Agency theory arguments, discussion shows that the remuneration committee contributes a great role in the light of agency problems between management and shareholders of the firm (Fama & Jensen, 1983). Harymawan et al. (2020) study represent that remuneration committee is positively related to firm performance. Lam and Lee (2012) conducted a study and findings represent that association among RC performance of firms is negative. Another study Kallamu and Saat (2015) results clarify that RC shows a positive and significant association with firm performance. Similarly, Main and Johnston (1993) shows a negative impact of RC on the performance of firms.

Ho: There is a negative impact of RC on the performance of firms.

H1: There is a positive impact of RC on the performance of firms.

2.9 *Size of RC and Firm Performance*

Size board is believed to play an important role in monitoring the management, board efficiency which will become the better performance of firms (Fauzi & Locke ,2012; Zahra & Pearce, 1989). Haniffa and Hudaib (2006) suggested that if firms try to boost the performance, the size of the board should be small to be easily monitored and become very helpful in achieving firm overall performance. Akpan and Amran (2014) study results conclude that the size of the board shows a positive and significant relationship to firm performance. Liang, Xu, and Jiraporn (2013) results explain that the size of the board has a negative impact on the performance of firms. Similarly, Izic and Ince (2016) identify that the size of committee has a significant and positive impact on the financial performance of firms.

Ho: RCS and performance of firms represent negative association with each other.

H1: RCS and performance of firms represent negative association with each other.

2.10 *Independence of RC and Performance of Firms*

The Code of corporate governance divides the board into executives and non-executives directors these directors are either independent or non-independent directors. The actions of the CEO are monitored by non-executive directors (NEDs) and provide surety to the shareholder by skill and expertise executive directors that their interest will be maximized (Nahar, 2004; Weir & Laing, 2001). Johl, Kaur, and Cooper (2015) study result represents that independent members do not affect the performance of firms. Khan and Awan (2012) identify that there is a positive affiliation between NEDs and the performance of firms. Similarly, Adebayo, Olusola, and Abiodun (2013) results of the study discovered a positive and also significant association among BI and performance of firms. Guo and Kga (2012) study found that NEDs and firm financial performance shows a negative relationship.

Ho: RC independent and performance of firms represent negative association with each other.

H1: RC independent and performance of firms represent negative association with each other.

2.11 *Remuneration Committee Chairman Independence and Performance of Firms*

The third attribute of RC is chairman independent on the board. Very limited literature is available so according to Tao and Hutchinson (2013), the presence of an independent chairman will make effective decisions in RC and prevent the interference of the executive in

the affairs of the committee. The company will be in a prudent position to monitor the compensation of directors if the committee is chaired by independent directors and ensure the compensation plan is aligned with the risk-taking activities of managers and long-term objectives of the corporation.

H1: RCCI and performance of firms represent significant association with each other.

2.12 Remuneration Committee Financial Expert and Performance of Firms

The presence of members who are experts in finance in the remuneration committee will improve the company performance but those members who have accounting expertise and finance industry-related experience monitor the affairs of company finances as well as the industry practices effectively and efficiently (Tao & Hutchinson, 2013). According to Adams and Jiang (2020) study found that financial experts present on board will be beneficial and influence the performance of firms. Contrarily, Guner, Malmendier and Tate (2008) explain that the presence of directors having financial knowledge on board does not have any relationship with the firm's compensation policy. Garcia, Martínez, and García (2017) results explain that financial expertise and accounting performance of firms have a positive effect on each other.

H1: RCFX and performance of firms represent a positive association with each other.

2.13 Meetings of RC and Performance of Firms

Another important characteristic of RC is board members meeting if the frequency of meeting attended by the board of members to discuss the companies' affairs improving performance. A study conducted by Garcia and Garcia (2011) results shows that meetings of the board have a positive effect on the performance of firms. Hoque, Islam, and Azams (2013) study analysis show that RC meeting is positively and significantly associated with the performance of firms.

H1: RCM and performance of firms represent a positive association with each other.

2.14 Firm Size and Performance of Firms

Niresh and Thirunavukkarasu (2014) study results show that firm size and profitability have no relationship with each other. In Sritharans (2015) study, it was found that FS is positively associated with firm profitability (ROA) using the fixed-effect model analysis. However, Dogan (2013) describes that FS has a positive connection with profitability. Akbas and Karadumans (2012) study outcomes declare that FS and profitability represent a positive association with each other. Also, Vijayakumar and Tamizhselvan (2010) results declare that there is a positive association between FS and profitability was found.

H₀: FS on the performance of firms represent negative association with each other.

H₁: FS and performance of firms represent positive association with each other.

3. Methodology

Every study focuses on reliable and valid results for this purpose the researcher constructs an effective design to conduct research. The present study uses a quantitative method to examine the impact of independent and dependent variables of cement and textile firms listed at PSX. This study used a secondary source that is annual reports to collect the data which are listed in PSX for 7 years from 2012-2018. All the variables are executed or run through statistical software (SPSS 20). There is a total of 35 sectors in the Pakistan stock exchange. The study focuses only on manufacturing sectors and in manufacturing sectors, cement and textile are selected having a great contribution to the economic variables of Pakistan because the cement industry is concerned with the infrastructure of the country and the textile industry is with the fabrication. So, all firms that are present in the cement and textile industry are the population of study which are incorporated into PSX. The cement industry includes 21 firms and the textile industry includes 148 firms. The study uses simple random sampling technique. According to Yamane's (1967) cement industry, there are 21 firms and select 20 firms while in the textile industry there are 148 firms and select 109 firms with the help of the above mentioned-equation. But on the availability of the firm's annual reports and data, the cement industry includes 16 firms and the textile industry includes 56 firms. Thus, total sample size is 63 firms, 15 from cement and 48 from textile firms.

3.1 Conceptual Framework Model

Thoroughly review of literature a conceptual framework is used to design the association among AC and RC and firm performance by considering different authors Amer, Ragab, and Shehata (2014); Khan, Ali, and Boudiab (2017); Kanapathippillai, Johl, and Wines (2016); Kallamu and Saat (2015).

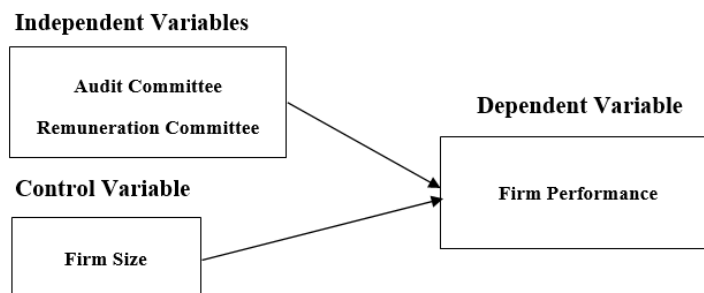


Figure 1: Conceptual Frame work

3.2 *Measurement of Variables*

In this part of the study all variables of the audit committee, remuneration committee, firm size and firm performance used in research are explained which are present in annex A Table 1: variable summary.

3.3 *Hypotheses*

From the above discussions, the present study is based on the following hypotheses:

H1: Audit committee and performance of firm's have a significant impact on each other.

H2: Remuneration committee attributes and performance of firm's have a significant impact on each other.

H3: Firms 'size and performance of firms have a significant impact on each other.

3.4 *Data Analysis*

To analyze and interpret the material data, various statistical tools are used that is descriptive statistics, correlation, and auto correlation, multicollinearity, the goodness of fit, explained variation, and regression analyst is used to analyze the impact of attributes of AC, RC and performance of firms. Before the data analysis study apply the five assumptions of regression on variables through SPSS 20 to clean the data.

3.5 *Regression Model*

The following are the different multiple regression models (MRM) that are designed to check the impact and association among the audit and remuneration committee attribute on firm performance.

$$Y = \alpha + \beta X + e$$

For Audit Committee

$$\text{Firm performance} = \alpha + \beta_1(\text{Audit Committee Attributes})_{it} + e_{it}$$

3.5.1 *Model 1*

$$\text{PERF} = \beta_0 + \beta_1(\text{ACS})_{it} + \beta_2(\text{ACM})_{it} + \beta_3(\text{ACI})_{it} + \beta_4(\text{ACFL})_{it} + \beta_5(\text{FS})_{it} + e_{it}$$

For Remuneration Committee

$$\text{Firm performance} = \alpha + \beta_1(\text{Remuneration Committee Attributes})_{it} + e_{it}$$

3.5.2 Model 2

$$\text{PERF} = \beta_0 + \beta_1(\text{RCS})_{it} + \beta_2(\text{RCI})_{it} + \beta_3(\text{RCCI})_{it} + \beta_4(\text{RCFX})_{it} + \beta_5(\text{RCM})_{it} + \beta_6(\text{FS})_{it} + e_{it}$$

4. Data Analysis

4.1 Descriptive Statistics

Table 1
Descriptive Statistics

	N	Min.	Max.	Mean	Std. Deviation
ACS	441	3	6	3.26	0.58
ACM	441	0	8	4.39	0.93
ACI	441	.00	1.00	0.87	0.22
ACFL	441	.16	.66	0.31	0.04
RCS	441	3	5	3.14	0.41
RCI	441	.00	1.00	0.77	0.20
RCCI	441	0	1	0.90	0.29
RCFX	441	.20	.66	0.45	0.17
RCM	441	0	5	1.29	1.11
FS	441	6.17	10.63	8.50	1.22
ROA	441	-.68	0.39	0.02	0.10
ROE	441	-.94	0.93	0.15	0.20

The above descriptive table represents the 441 observations for the period of 2012-2018. For example, ACS has a min value of 3, and the max value is 6. The mean value of ACS is 3.26 with a standard deviation of 0.58. ACM represents the min value is 0 and the max value is 8 with the mean value of 4.39 and the SD is 0.93. RCS min value is 3 and the max value is 5 which represents the member's size of the committee. The mean value is 3.14 and the SD of RCS is 0.41. The RCI has min value is 0.00 and a max value is 1.00 having a mean value of 0.77, the standard deviation is 0.20. The RCCI has a min value is 0.00 and a max value is 1 with a mean value of 0.90 with a standard deviation of 0.29 same as other variables of audit and remuneration.

4.2 *Multicollinearity Test*

In research, there are two methods used to check the multicollinearity that is correlation coefficient and tolerance and variance inflation factor (VIF). According to Hair et al. (2010) given that the correlation coefficient is not greater than 0.80, tolerance greater than .10 and VIF values is less than 10, so all outcomes are in acceptable range therefore there is no issue of multicollinearity problem exists.

4.3 *Correlation Test*

The below table represents the correlation among variables. The range of correlation exists between the values from -1.0 to +1.0. If the value of correlation is +1, correlation is positive, the value of correlation is 0 means there is no correlation among variables and the value of -1 means there is a negative association among variables.

In the correlation table some variables have a positive and some have a negative relationship between them. All those variables which have two ** mean that variables have a significant positive and negative association at the 0.01 level, variables that have one * means that variables have a significant positive and negative association at the 0.05 level and without an asterisk, the sign means that some variables have positive insignificant and some have a negative insignificant correlation with each other.

4.4 *Regression Test*

The study uses a regression test to identify the impact among two or more dependent and independent variables. In this study different statistical tests implement to identify the impact of AC and RC attributes on firm performance. These test runs along with the regression analysis that is autocorrelation, multicollinearity, the goodness of fit, explained variation. The following are regression tests to find the impact of variables.

Table 2
Correlation

	ACS	ACM	ACI	ACFL	RCS	RCI	RCC	RCFX	RCM	FS	ROA	ROE
ACS	1											
ACM	-.04	1										
	.41											
ACI	.34**	-.02	1									
	.00	.67										
ACFL	-.41**	.00	-.39**	1								
	.00	.96	.00									
RCS	.58**	-.07	.34**	-.49**	1							
	.00	.10	.00	.00								
RCI	.14**	-.14**	.58**	-.12*	.41**	1						
	.00	.00	.00	.01	.00							
RCCI	-.04	-.04	.08	.08	.07	.27**	1					
	.42	.34	.10	.11	.13	.00						
RCFX	-.21**	.12*	-.04	.22**	-.44**	-.19**	-.13**	1				
	.00	.01	.39	.00	.00	.00	.00					
RCM	-.02	.17**	.05	.04	-.03	.06	.12*	.09	1			
	.64	.00	.28	.41	.48	.17	.01	.06				
FS	-.27**	-.07	.05	.20**	-.15**	.18**	.21**	.05	.30**	1		
	.00	.16	.31	.00	.00	.00	.00	.24	.00			
ROA	.28**	.01	-.28**	-.18**	.09	-.06	-.02	-.05	-.08	-.20**	1	
	.00	.85	.00	.00	.06	.02	.59	.30	.09	.00		
ROE	.02	.02	-.01	-.02	.02	.02	-.02	.03	.01	-.06	.07	1
	.55	.70	.78	.64	.68	.64	.71	.49	.76	.16	.12	

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

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

4.4.1 Regression Analysis of Audit committee

Table 3

Audit committee impact on ROA and ROE

Model						
Independent Variables	ROA		ROE		Collinearity Statistics	
	Coefficients	T	Coefficients	t	Tolerance	VIF
Constant	-.121 (0.282)	- 1.076	2.079 (0.770)	.293		
ACS	.069 (0.000)	4.922	.154 (0.863)	.173	0.330	3.034
ACM	.012 (0.021)	2.412	.323 (0.013)	2.125	0.989	1.011
ACI	.025 (0.000)	3.730	-.131 (0.754)	-.314	0.831	1.203
ACFL	.198 (0.031)	2.173	.658 (0.012)	2.024	0.329	3.036
FS	-.009 (0.024)	- 2.268	-.307 (0.235)	-1.190	0.900	1.111
R	0.743		0.505			
R-Square	0.552		0.256			
Adjusted R-square	0.328		0.109			
F Change	13.179		9.437			
Sig	0.000		0.023			
Std. Error	0.099		6.278			
D-W	1.986		2.010			
Observation	441		441			

In this table, Adj R² is called the coefficient of determination, and the value of Adj R² is 0.552 means that 55.2% of changes in ROA are defended by the AC attributes while the remaining changes 44.8% are defended by other variables. The F value is 13.179 which means that the overall model is fitted with the significant value is 0.000. The audit committee size shows a positive association and significant with ROA because the value of t-statistics is 4.922 and the significant value is 0.000 less than the 0.05. ACM, ACI, and ACFL show a positive association and significant with ROA, the FS also represent the significant negative association with the dependent variable. So according to Amer, Ragab, and Shehata (2014), the results of ACS and ACI are matched with the present study which explains that ACS and ACI represent have a significant relationship with ROA.

So, on the other side of the audit committee and firm performance that is ROE, Adj R² value is 0.256 which is understood that 25.6% changes in ROE are explained by the AC attributes while remaining 74.4% is explained by other variables. The F value is 9.437 means that the overall model is fitted with the significant value is 0.023 because of $P < 0.05$. In regression analysis ACS shows a positive association with ROE but insignificant results $0.863 > 0.05$ with a t-value 0.173 matched with previous study Al-Matari, Al-Swidi, and Fadzil (2014). ACM represents a positive association and having a significant t-value that is $0.013 < 0.05$ with ROE. ACI shows a negative association and insignificant 0.754 with ROE. ACFL shows a positive and significant $0.012 < 0.05$ association with the firm performance that is ROE. The control variable which represents a negative and insignificant $0.235 > 0.05$ relationship with firm performance, that is ROE. The above discussion is matched with the studies by Amer et al. 2014; represent that ACS, ACI, and FS are insignificant with the firm performance that is ROE while ACM and ACFL represent positive and significant association with ROE.

4.4.2 Regression Analysis of Remuneration Committee

The remuneration committee is another independent variable. The below regression table represents the impact of RC on the performance of firms (ROA). The value of adjusted R² which is the coefficient of determination is 0.452 which is understood that 45.2% changes in ROA are described by the RC while the remaining variation 54.8% is described by other variables. The F value is 9.944 which means that the overall model is fit because the significant value is $0.001 < 0.05$. RCS has a positive and significant $0.014 < 0.05$ relationship with ROA, the result is similar with previous studies Akpan and Amran (2014), Izic and Ince (2016) they also represent the positive significant association with ROA. RCI has also positive and significant $0.030 < 0.05$ associations with firm performance (ROA) and is matched with previous study by Khan and Awan (2012) which represent the positive significant association with ROA. RCCI, RCM, represent a positive sign but FS show negative but significant (0.047, 0.024, and $0.00 < 0.05$) association with performance of firms (ROA) and these outcomes are match with Garcia et al. (2017), Hoque et al. (2013), Tao and Hutchinson (2013) these studies represent same results that is RCCI, RCM, represent a positive significant but FS show negative significant association with ROA. RCFX shows a negative insignificant association with ROA and does not match with studies already done by Adams and Jiang (2020); Tao and Hutchinson (2013), noted that RCFX shows a positive association and significant with the performance of the firm that is ROA. From the above regression table, another impact is the RC and firm performance (ROE).

Table 4
Remuneration committee impact on ROA and ROI

Model						
Independent Variables	ROA		ROE		Collinearity Statistics	
	Coefficients	T	Coefficients	t	Tolerance	VIF
Constant	.196 (0.015)	2.443	3.438 (0.480)	.707		
RCS	.025 (0.014)	2.083	-.133 (0.868)	-.166	0.667	1.499
RCI	.014 (0.030)	2.798	.278 (0.565)	.575	0.765	1.308
RCCI	.036 (0.047)	2.296	-.268 (0.760)	-.306	0.876	1.142
RCFX	-.156 (0.305)	-1.027	-1.537 (0.868)	-.167	0.788	1.269
RCM	.005 (0.024)	2.493	.203 (0.470)	.723	0.903	1.107
FS	-.015 (0.000)	-3.753	-.399 (0.131)	-1.514	0.851	1.174
R	.672		.081			
R-Square	.452		.007			
Adjusted R-square	0.394		-.007			
F Change	9.944		.480			
Sig	0.001		0.824			
Std. Error	10.370		6.280			
D-W	1.877		2.014			
Observation	441		441			

The value of R2 is very minimum i.e. 0.007 mean that 0.7% change in ROE is defended by the RC while the remaining change is 99.3% defend by other variables and F-value is 0.480 which means that model is not fit with the insignificant value that is 0.824>0.05. All the attributes of RC show an insignificant relationship that is the value of $p > 0.05$ with ROE. Results are matched with Lam and Lee (2012) and do not match with the studies already done by Adams and Jiang (2017), Akpan and Amran (2014), Dogan (2013), Johl, Kaur, and Cooper (2015), Tao and Hutchinson (2013).

4.5 Hypotheses

Table 5

Summary of Hypotheses

	Hypotheses	Result
<i>H1</i>	The audit committee and performance of firms (ROA) have a significant impact on each other.	Supported
<i>H2</i>	The audit committee and performance of firms (ROE) have a significant impact on each other.	Supported
<i>H3</i>	The remuneration committee and performance of firms (ROA) have a significant impact on each other.	Supported
<i>H4</i>	The remuneration committee and performance of firms (ROE) have a significant impact on each other.	Unsupported
<i>H5</i>	Firms' size and performance of firms (ROA) have a significant impact on each other	Supported
<i>H6</i>	Firms' size and performance of firms (ROE) have a significant impact on each other	Unsupported

5. Conclusion

The core purpose of the study is, to identify the impact of AC and RC on firm performance in Pakistan by considering the cement and textile firms. In today's changing and developing competitive world, governance and boards are an important key variable for any organization to increase the performance. As the world become in a challenging situation, firms try to maximize profits and also increase shareholder wealth. In corporate sectors, non-financial firms have played an important Role in developing the economic condition of any country.

The finding of the study explains that the attributes of AC that is ACS show a positive association and significant with the ROA it means that a firm with an increased number of audit committee size it will leads to increase the firm performance. ACM, ACI, and ACFL show a positive association and significant with ROA, means that firms conducting regular meetings with the help of which actual position is presenting in front of BODs, AC members have knowledge of finance and accounting expertise and representing the true picture in the form of financial reporting due to which the desire firm performance is achieved and the more independent members in AC will be a benefit for firm performance because they highlight firms accounting and audit results very effectively and efficiently. Firm size also represents the significant but negative relationship with the dependent variable which represents that firm size affects firm performance but negatively because firms are increasing their size for profit maximization but cannot manage it properly.

Another finding of the study is AC attributes and ROE. The results indicate that ACS shows a positive affiliation with ROE but insignificant results because larger ACS reduces firm performance due to the problem of free rider and without considering member arguments. ACM represents a positive significant association with ROE these meetings represent the effective results to their shareholders. Audit committee independent shows a negative insignificant association with ROE because most of the members hold equity in the firm and are engage in monitoring the affairs of the firm. Audit committee financial literature shows a positive significant association with the performance of firms. Firm size; which represents a negative affiliation and insignificant with the performance of firms. So, the overall model represents a significant affiliation with the performance of firms (ROE).

Remuneration committee attributes is another independent variable. The finding of the remuneration committee points out that RCS has a positive affiliation and is significant with ROA. Remuneration committee independent, remuneration committee chairman independent and remuneration committee meeting have also a positive significant affiliation with the performance of the firm (ROA) means that meetings are conducted by the remuneration committee to provide the effective opinion in the form of remuneration to the directors and employees of the firms. In this committee majority of the board members are independent because they are giving an effective suggestion to the firm to increase firm performance.

The committee is chaired by the independent director because the chairman enables the committee to effectively monitor the compensation policies and follows the rules of the remuneration committee provided by the code of the corporate governance consistent with previous studies and FS show negative affiliation and significant with the performance of firms (ROA). RCFX shows the negative insignificant association with the firm performance that is ROA so members having the knowledge of financial and accounting but not presented properly for taking the effective decision in the form of compensation to the board members. The overall findings explain that the RC has a significant association with the performance of firms (ROA).

On the other hand, RC has an insignificant association with the firm performance that is ROE. All the attributes of RC show insignificant results with firm performance these outputs are matched with the prior results. It's all because most of the firms are family-owned firms and they do their best for their own that is self-interest.

5.1 Recommendations

1. Management of cement and textile firms should focus on the board's busyness because of their busyness they will not give proper time to firms.

2. From the results it is clear that firms with committees that is audit and remuneration, their attributes show a great emphasis on ROA as compared to ROE so it is recommended for firms boards to implement rules and code of different attribute designed by PCCG to enhance the ROE because shareholders have mainly focus on return on equity.
3. This study also recommends that the regulatory authorities should have to clearly define the role of the member having accounting and expertise in finance in remuneration and audit committee to execute compensation plan in the interest of management.
4. Furthermore, all those stakeholders who have as association with firms focus on financial information to make the proper decision for this purpose true picture of financial information is present by independent board members so firms should rely on independent members because they are truthful.

5.2 *Limitations and Future Directions*

1. The core of the study is the audit and remuneration committee to predict the performance of firms. For future researchers, other attributes may be incorporated to improve the firm performance in-depth.
2. This study considered only two theories that are agency and stewardship, the future researcher can also examine the other theories that are stakeholder, institutional and resource-based theory.
3. For further study, other researchers should also focus on the financial firms that are listed in PSX.
4. The finding of the study is only generalized to those firms that are similar to the firms which are included in this study.

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Appendix

Table 1
Variables Summary

Variables		Measurement	References
ACS	Audit committee size	It explains the presence of members present in ACS	(Tao & Hutchinson, 2013)
ACM	Audit committee meeting	Number of Meeting carried out by AC members in year	(Khan, Ali, & Boudiab, 2017)
ACI	Audit committee independent	Number of NED serving in the AC	(Al-Matar, Al-Swidi, & Fadzil, 2014)
ACFL	Audit committee financial literate	Number of AC members having the knowledge of finance and accounting divided by total number of AC members	(Amer, Ragab, & Shehata, 2014)
RCS	Remuneration committee size	The number of remuneration committee member	(Kanapathippillai, Johl, & Wines, 2016)
RCI	Remuneration committee independent	Number of IND board members in RC	
RCM	Remuneration committee meeting	Meeting that are carried in year by RC members	
RCCI	Remuneration committee chairman independent	If chairman is independent in RC then assign the one and if chairman is not an in independent then assign zero.	(Kallamu & Saat, 2015)
RCFX	Remuneration committee financial expert	Proportion of directors with accounting qualification and finance industry experience.	(Kallamu & Saat, 2015)
FS	Firm size	Taking Logarithm of TA	(Niresh & Thirunavukkarsu, 2014)
ROA	Return on asset	$\frac{\text{Net Profit}}{\text{Total assets}}$	(Sanda, Garba, & Mikailu, 2011).
ROE	Return on equity	$\frac{\text{Net Profit}}{\text{Total Equity}}$	

The Nexus Between Financial Liberalization and Private Investment: An Econometric Analysis from Pakistan

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Abstract

The current study investigates the association between financial liberalization and private investment from 1980-2018 in Pakistan using Auto-Regressive Distributed Lag (ARDL) model. The real interest rate has been employed as a proxy of financial liberalization. Moreover, FDI, economic growth and inflation have been taken as other determinants of private investment. The bond test indicates a significant co-integrated link in the variables. The long length outcomes divulge that real interest rate has a negative and statistically significant effect on the Private investment. It explains if interest rate decreases, and the private investment increases, then ultimately, growth rate increases. The econometric analysis also illustrates that both variables are interdependent. The study, however, explains that due to the rise in private investment, saving also increases which in response, accelerates the development process, especially in Pakistan. So, it is endorsing that the government and other stakeholders should focus on taking careful steps to increase financial liberalization in the finance sector. As it will have an unbendable impression on the private investment, and there is indirectly linked progressive relation with economic growth.

Keywords: Econometric analysis, Growth rate increases, Development process, Economic growth.

JEL Classification: 0160

1. Introduction

Financial liberalization is a ponderous and multidimensional procedure. It may concern with the regulations of finance institutes of any economy. The financial liberalization philosophy states the macroeconomic strength and economic growth of a country can be

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developed by deregulating the domestic financial market and delineating the interest rate, through governing the capital. It comprises government policies that contemplate deregulating credit and interest rate controls, eradicates access barriers or foreign financial transactions such as Bogdan, Ghosh, and Doerge (2004); Lall (2001); Obstfeld (2009). Henceforth, financial liberalization includes both dimensions; local and foreign. Financial liberalization initiates and strengthens the price mechanism in the market, besides it also develops a competitive environment in the market.

Financial liberalization stated as the strategy portions, which are developed to deregulate specific financial system operations, and transfigures. The emergence as a source to achieve the market based liberalize system through suitable standard edifice. Significant reforms in the finance system will chaperon to magnify money for a loan through enticing more domestic savings to bank credits ensuring a high rate of interest. The result will be a huge investment and enormous growth.

Schumpeter (1911) stated economic development needs services of financial mediators. Financial markets has been strengthened by financial liberalization and as a result, endorses economic growth (Huang & Wang, 2011). A number of developing economies have instigated financially liberalized policies aiming to advance the efficiency of monetary policy relying much on market forces. Significant policies of liberalization envisioned for liberalizing interest rates, reducing credit control, refining contention and productivity within financial system, solidification of administrative framework and upholding the growth by excavating of financial markets.

Like many other countries, Pakistan has also taken many initiatives towards financial liberalization for gaining a high growth level. There is a dire need to conduct an experimental study to check the efficiency of financially liberalized strategies to study the development structure of Pakistan. Financially liberalized structure was restricted in the 1990's and minimum savings, low rate of investment, slow economic growth were the results of this restriction (Khan, Qayyum & Ahmed, 2007). Pakistan is indeed a developing country and it faces various snags including political instability, truncated literacy ratio, no employment, less effective bank system, lack of modernized technology and rural industries. To attain a higher level of economic growth, Pakistan can apply many social and economic policies and one of these policies is financial liberalization.

Many researchers studied finance-related issues and reforms with private set up investment and gave its results. Some of those have been found in recent experimental studies as Eigbiremolen and Igberaese (2013), Faridi and Baloch (2018) and Khalid and Nadeem (2017). The researches of McKinnon and Shaw in 1973 initiated that the modern era economists examine financial liberalization and financial policy in developing economies (Hermes

& Lensink, 2008). These analyses are found till today. It has discussed by many researchers such as Abderzag and Hasnaoui (2015), Williams and Nguyen (2005), Lee (2003), and de Castro (2018) that financial repression states a background in which financial system is pressed or downgrade through government arbitration that has affected the interest rates of domestic banks which offer low-interest rates to the customers or sometimes ratio goes to negative.

Low-interest rate discourages the savors, investments become unachievable and hence economic growth becomes obscure. Financial control is mostly associated with the government fixing of interest rates (Bascom, 2016) and its adverse outcomes on the financial sector and economy and financial liberalization is commonly associated with an independent interest rate system. This is the older view of financial liberalization.

Financial liberalization is a procedure which comprises a wider range of actions or trials to tackle the purging or removal of certain boundaries on the finance sector. Also, It is stated by Ductor and Grechyna (2015), it is the removing portfolio limitations for the banking sector, reforming of different industries, and fluctuations in the organizational structure of monetary policy (Abderzag & Hasnaoui, 2015; Steinherr, Tukel, & Ucer, 2004).

The term financial liberalization is also shown as a set of processes the independence of central bank from government, an absolute independent investment moving inside and outside any country, total conversion of the currency; relinquishment of entirely leading sectors offering goals; abolishment of government levied interest rate policies; acquittal of interest rates, no restriction on the bank ownerships; denationalization and complete freedom for foreign ownership (Patnaik, 2011). So it can be said that financial liberalization fetches cost and benefits for running economies.

Besides, financial liberalization means to remove or loosen the governmental restrictions on the domestic financial market (Precious, Bahle, & Praise, 2014). It includes the policies to free financially suppressed countries from the growth retarding financial schemes that may be a ceiling on interest rates directed credit to the priority sector and government-owned banks which are few and ineffective. During the start of the century 1970s, the economies which are in the initial stage of development focused on infrastructure and organizational progress, presumptuous that it would start industrialization and economic growth. So, they stressed building roads, bridges, communication networks industrialization and other investment projects etc. So some other economists as Panayiotou and Medda (2014) and Wade (2004) also presumed that better infrastructure would attract the private sector to show investment in new ventures to enhance or endorse economic revolution. On other hand, private investment mentions entire classes of investments except the investment furnished by the government.

This study has highlighted the literature and practical gap, and contributed to reduce this gap. The indepth literature review has enabled to understand the financial liberization and private investment in different ascpets. Moreover, the literature has highlighted the other factors effecting the financial liberziation and private investment, Most of studies has highlighted only banking crises , price discrimination , trade openness , export import etcfactors. But, in previous literature freedom to the investors , Foriegn direct investment,e-citizenship for foreigners and some more factors has been ignored, which was focused in this study, which was ignored in previous literature.

The financial liberalization has the ability to boost the private investment, inside and outside the country, which will increase the overall economic growth. After 1990's, China has give the financial liberatilizatoin and freedom to the investors, which will bring more foreign direct investment in to China. So, the overall number of business increased and the economic got boosted rapidly. On the other hand, in Europe, Estonia has introduced the e-citizenship and company registration facility for foreigners, provide them virtual offices, local addresses, local contact number and local contact person, low tax rates, and other facilities and freedom to do businesses. So, this financial liberization has also incraseed the private direct and indirect investment in Estonia.

In Pakistan, the poor infrastructure, lack of awareness, and polirical unstability has create thousands of problems for investors. The foreigner investors do not feel financial liberalization. So, they have avoided to invest in Pakistan, which will ultimately result in the low economic growth. The current government is trying to provide more financial liberatization and freedom to investors but still investors are hesitating to invest in in Pakistan. So, this study has highlighted the practical issue of financial liberatization and its effect on private investment in Pakistan, which was not conisered a crucial factor for economic growth.

This stuay has been divided into five sections. In the first section, the background, introcuton, gap identification and significane of the study has been metioned. In the second section, literature review has been elaborated. Moreover, the third section is based on methodology used to contuct the study. While, in the fourth section, results and their interpretations have been written. At the end, in the fith section, conclusion and discussion, and limitations of the study has been mentioned.

2. Literature Review

Numerous empirical literature was found to observe the relationship between financial liberalization and private investment. The results of most of the studies have depicted that financial liberalization has a positive impact on private investment. Most of these studies were conducted internationally and only a few were done in Pakistan. Some of the studies have been discussed here briefly.

Echavarría and Zodrow (2003) examined the degree of credit restriction in Colombian firms, which changed the results of the investment choices. The research analyzed if the 1990s with the development of the financial department, which was pigeonholed by concentrated financial liberalization, increment in area, magnitude and depth of the action which decreased the constraints of the corporations and encouraged investment or not. Similarly, it expressed that financial liberalization and availability of more credit condensed the restrictions, and financial issues impacted negatively on investment.

Fowowe (2011) presented a study about the link between financial sector modifications and private investment. The researcher used the area of some Sub-Saharan African economies for his research. The study established an index to trail the plodding advancement resulted in the implication in different stages of reforms. The econometric estimates revealed that financial reforms that positively impacted on private investment in the chosen economies; hence presented backing to the financial liberalization theories.

Orji, Eigbiremolen, and Ogbuabor (2013) presented a study on the relationship of financial liberalization and private investment in the Nigerian economy under the period from 1970-2012. The study used real interest rates as a proxy of financial liberalization and concluded that it linked positively with private investment. The study used different econometric techniques such as Chow test, Granger causality test and cointegration test for analysis. The study also used the ordinary least square model and recommended that private saving boosted private investment in Nigeria. The study further proposed that financial liberalization and other basic variables were essential for growing and developing the economy. The research presented some recommendations such as policymakers should increase price stability and minimize the inflation rate which enhances the private investment. Thus, the researcher advised that the administration should produce opportunities for private investment for prosperity.

Akinsola and Odhiambo (2017) explained the relation of financial liberalization and economic growth by using the data of 30 countries of Subcontinent of Africa from the period of 1980-2015. The study used the panel data analysis technique and used the Generalized Method of Momentum (GMM) for estimation and concluding the result. The study found that there is a negative relationship between a banking crisis and economic growth, showing that the period of a banking crisis can drastically affect economic growth in Sub-Saharan Africa. The study also considered the unique character showed by financial liberalization in developing economies, analysis has suggested that financial liberalization procedure should be executed with attentiveness to avoid jeopardizing financial stability.

Hye and Lau (2018) presented that in developing countries, economic growth was enhanced by private investment. The researcher used Pakistan as an area of research and explained the effect of financial liberalization and trade on private investment. The study used a data set of the period from 1971 to 2014. Autoregressive Distributed Lag (ARDL) model for estimating the data. The study resulted that financial liberalization and trade liberalization a positive relation with private investment in the long run. At the same time, Trade Openness (TO) and Real Interest Rate (RIR) linked negatively in the long term. The study also concluded that Financial Openness (FO) and Financial liberalization (FL) linked positively with private savings.

Zeeshan, Naeem, and Malik (2019) explained the relationship of Economic Growth (EG) and Financial Liberalization (FL) in the area of Pakistan during the time span of 1973-2017. They used the Augmented Dickey-Fuller test and also used Bound test techniques in their analysis. For estimation, the researcher also used ARDL techniques. Trade liberalization was measured as export to GDP ratio and the ratio of exports plus imports to GDP while financial liberalization measured as net Foreign Direct Investment as a percentage of GDP and foreign assets of the central bank. The results showed that both measures of trade liberalization found significant while net FDI found insignificant and foreign assets with central bank was found statistically significant. The study recommended that there are so many other procedures for analyzing growth in Pakistan and the area is open for future research.

Comprehensive study is scarce on this topic or there is no significant study on this topic which explain entirely the said issue. So this study is an input to examine the relation of financial liberalization and private investment in the current scenario.

The theoretical and experimental opinions on this linkage are not decided yet. Henceforth, the current research is an exertion to identifying the connection of financial liberalization and private investment in the developing economies like Pakistan.

3. Methodology

In this study the impact of financial liberalization on the private investment, the investigation uses the autoregressive distributed lag (ARDL) approach of co-integration. Real Interest Rate employed as a proxy for financial liberalization as various other studies such as Ahmed (2013), Orji et al. (2013) and Udoh and Ogbuagu (2012) etc have been previously used. Further, financial repression is mostly linked with fixing of interest rates by the government and adversarial results on the financial sector and economy; financial liberalization is connected with independent interest rates. To acquire vigorous approximations, the study will include Foreign Direct Investment (FDI) and inflation as a related controlled variable. We can explain all the variables in the below-given form of the regression equation:

$$P_{inv} = f(rir, fdi, gr, ifl) \dots\dots\dots(1)$$

P_{inv} = Private Investment

fdi = Foreign Direct Investment

gr = Growth Rate

ifl = Inflation

rir = The nominal deposit rate minus the inflation rate is called the real interest rate.

$$RIR = \gamma t - \pi t \dots\dots\dots(2)$$

The researcher has taken it as a proxy of financial liberalization. The Regression Equation is:

$$P_{inv} = \beta_0 + \beta_1 rir + \beta_2 fdi + \beta_3 gr + \beta_4 ifl + \mu t \dots\dots\dots(3)$$

In the model, β_0 is the intercept of the relationship; β_1 , β_2 , and β_3 are the coefficients of each exogenous variable. μt is the error term.

Data has been collected from 1980-2016 from World Development Indicator, different Economic Surveys, and the website of State Bank of Pakistan.

To do the estimation, the researcher will employ the unit root method, cointegration techniques and ARDL model & ECM method for analyzing the data for Pakistan.

1. The long-run association is studied by approximating the subsequent unobstructed Error Correction Model.

$$\Delta \ln P_{inv} \beta_0 + \omega \sum_{i=1}^n \Delta \ln (P_{inv}) t - i + \beta_1 \sum_{i=1}^n \Delta rir t - i + \beta_2 \sum_{i=1}^n \Delta fdi t - i + \beta_3 \sum_{i=1}^n \Delta gr t - i + \beta_4 \sum_{i=1}^n \Delta ifl t - i + \mu t \dots\dots\dots(4)$$

In equation 4 the terms with summation signs exhibit the error correction dynamics, while the second explains the long run associations. F test is used to check the long-run association. Null hypothesis is

$$H_0 = 0$$

The alternative hypothesis is

$$H_0 \neq 0$$

If the long-run relation exists then F-statistics illustrates the normality of variables and also demonstrates the measurement of co-efficient in the short as well as the long run.

4. Outcomes of the Study

The financially liberalized policies practiced in Pakistan were proposed by McKinnon and Shaw for the development of the financial sector. But the study of available literature has revealed financial openness that may boost the economy's helplessness in disaster. investment; the results of the experimental research have been discussed as follows:

4.1 Descriptive Analysis

The table first expresses the descriptive statistics. The high value of standard deviation as related to the mean values of regressive or regressed variables shows considerable change in the variables.

Table 1
Description of Variables

Variables	Mean	Std. Dev	Minimum	Maximum	Median
PI	5432	5983	2157	1631	2311
RIR	11.59	3.0747	7.500	20.00	10.00
GR	5.073	1.879	1.700	9.000	4.550
INF	9.781	5.138	2.463	24.89	8.640
FDI	0.942	0.861	0.102	3.668	0.627

4.2 Pearson Unit Root Test

Pesaran (2007) presented the PP unit root test for analyzing the data. In this paper, the PP unit root tests mentioned in table 2.

Table 2
PP Test Statistics

Variable	t-statistic	p-value	t-statistic	p-value	Order of integration
PI	0.903	0.99	3.448	0.01	I (1)
FDI	-1.721	0.411	-3.700	0.00	I (1)
RIR	-2.049	0.265	-3.705	0.00	I (1)
GR	-4.19	0.00	--	--	I (0)
INF	-5.44	0.00	--	--	I (0)

The results express that all the variables such as $\log(P_{inv}, rir, k)$, fdi , gr & ifl show non-stationarity and are found unit root at level except private investment, foreign direct investment and real interest rate which show non-stationarity at the level. Now after taking their first difference, these variables become stationary.

The results from the table explain that all the variables are found stationary at 5% in the first difference form and have a 1 % level of significance.

Table 3

Augmented Dicky Fuller Test Statistics (ADF)

Series	t-statistic	Probability value	E(t)	E(Var)	Lag	Max Lag	Observations
<i>PI</i>	0.496	0.983	-1.519	0.825	1	7	32
<i>RIR</i>	-3.400	0.018	-1.462	0.861	2	7	31
<i>FDI</i>	-2.661	0.091	-1.519	0.825	1	7	32
<i>GR</i>	-4.226	0.002	-1.525	0.783	0	7	33
<i>INF</i>	-5.424	0.000	-1.525	0.783	0	7	33

To apply the ARDL method, the researcher acquired variables after taking their logarithm at the 1st difference level and then used the SB criterion as used so many others as Bogdan et al. (2004). The calculated F- statistics were found 4.91 which is higher as compared to the critical value which is 5 % of its level of significance. It is establishing the existence of a long-run association among the variables.

Table 4

ARDL and Critical Bound Test

I(0)	I(1)	Significant
3.03	4.06	10%
3.46	4.57	5%
3.89	5.07	2.5%
4.40	5.72	1%
Test Statistics	Value	K Value
F-statistics	4.9182	4

The random walk is an example of nonstationary succession. For the random walk, if the one-unit root is I (1). On the contrary, a stationary series is I (0). Standard inference procedures are not applied to regressions, which include assimilated regressions. Hence, it is urgent for checking the level of the stationary unit; it can be achieved through using a unit root test.

The table 4 exhibits the long-run coefficient while the optimal ARDL econometric technique is considered. The econometric conclusion of the said study is, FDI has a positive and statistically significant effect on private investment. But RIR had a negative and statistically significant effect on the private investment; which reveals if interest rate decreases, and then the private investment increases; then, ultimately growth rate increases.

Table 5

The Long Run Coefficient Results

Variable	Coefficient	Std. error	t-statistic	Probability
RIR	-0.017	0.008	-2.167	0.02
FDI	0.159	0.032	4.970	0.00
GR	-0.582	0.173	-3.357	0.00
INF	0.010	0.0048	2.142	0.04
Constant	13.320	1.015	13.123	0.00

The primary identification that could be concluded from the above-given status is the link between financial development and remortgage with customer credit markets. When the private credit was distorted for households to lend it to the industry, financial liberalization decreased the private investment and shortened the chances of business for the financial sector (Cho, 2002). To check the credibility of this statement, comprehensive data is required to allocate private credit within households and firms.

A broad characterization of the distribution of private credit (by sector of maturity) is immensely valuable, scrutinizes the extent of financial liberalization which resulted in and money flow expansion specified for private investment. This negative sign is unswerving having the hazardous effect of uncertainty of macroeconomic environment on the investor's verdict pronouncement.

People believe that better-conditioned infrastructure will attract the investors from different setup to join new investment ventures or schemes that will enhance the development

of the country. Henceforth the expansion of the agricultural, industrial & services arena will move the nation towards economic goal.

But when the resources are not used efficiently, the private area investment will not lift as per hopes; further problems may include administrative difficulties & tight fiscal policies by the government or authority (Hye & Wizarat, 2013). As the table depicts, INF has a positive and significant effect on private investment in the long run. The result indicates that a particular unit in the private sector can increase the 1.04% inflation rate. GDP presents a measure of the overall economy; GDP and private investment had a negative and significant relationship. The variables of GDP in the logarithmic terms assumed as the real interest rate (RIR) due to negative values presented in the data.

An advantage of logarithmic transformation found as the regression yielded an elastic coefficient of private investment rate specifically to explanatory variables, made it feasible to check the economic germaneness of the link.

Potential non- linearity in relation to dependent and explanatory variable also account for by the logarithm transformation. Mostly the effects of financial liberalization minimum at financial depth and boost with the development of the country's financial system.

Table 6
The Short Run Coefficient Result

Variables	Coefficient	Std. error	t-statistic	Probability
DRIR	-0.012	0.005	-2.127	0.04
DFDI	0.116	0.032	3.542	0.00
DGR	-0.423	0.118	-3.574	0.00
DINF	0.007	0.004	1.700	0.10
ECM(-1)	-0.727	0.208	-3.491	0.00
R square	4.745			
F statistics	1.536			

The coefficient ECM (-1) was found (- 0.72). The found coefficient is negatively linked & important impact, which indicates 72% divergence, which is settled in the running period (short as well as long-run) of each year. Inflation is such a variable that does not show the significance and these fallouts exhibited that financial liberalization, determined by Real Interest Rate, had a substantial negative effect on private investment in Pakistan. If the interest rate by the banks or other financial institutes in Pakistan is increased, the private

investment will disembark. More precisely, if there is an increase in every unit of financial liberalization (RIR) procedure in Pakistan, private investment dwindles up to 0,012 parts on average, while all other variables remain constant.

The negative association in both financial liberalization (RIR) and private investment is not found constant in the current study. The study thus deduces the same results as (Bogdan et al., 2004); Orji et al. (2013). In another way, the results exhibit that a high inflation level does not discourage private investment in Pakistan.

4.3 Diagnostic Test Lm and JB

The authenticity or validity of the above-given results may be checked by applying diagnostic tests, Cumulative Sum (CUSUM) and Cumulative Sum of squares (CUSUMSQ). The graphs of these tests are given below:

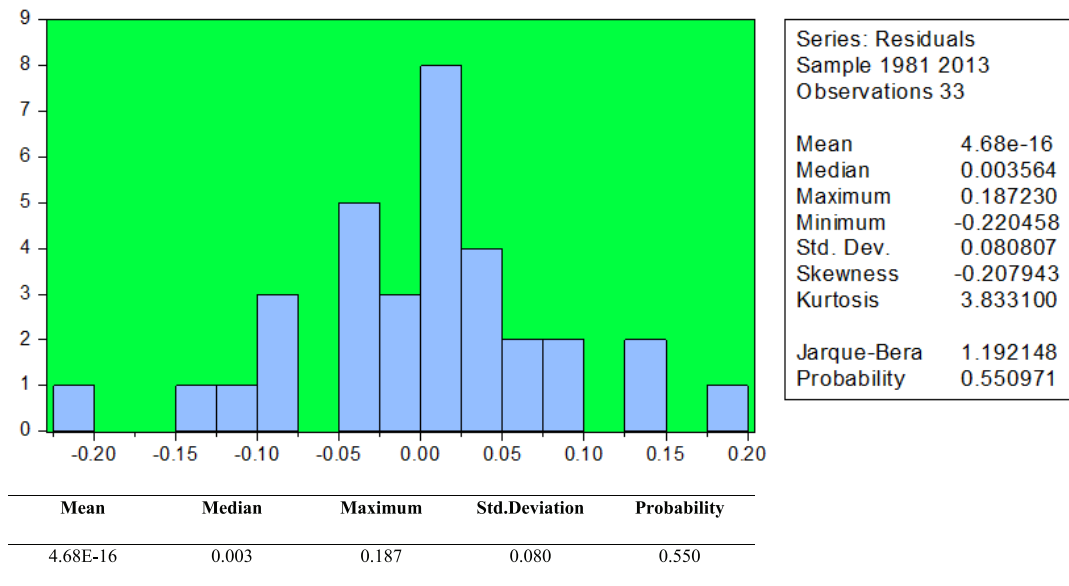


Figure 1 : Cumulative Sum (CUSUM)

Specification: LOG(PI) LOG (PI (-1)) RIR FDI LOG(GDP) INFC

t-statistic	0.642
F-statistic	0.412

LM Test

F-Statistics	1.536	Probability (2, 24)	0.235
R-Square value	4.745	Probability Chi-Square value (2)	0.153

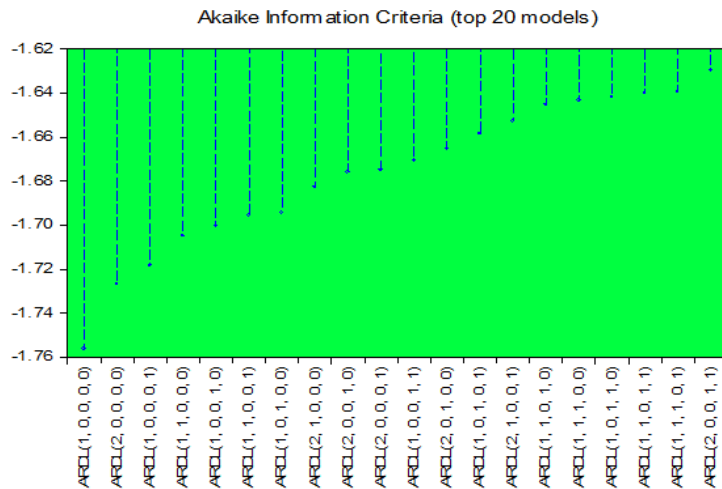


Figure 2 : Akaike Information Criteria

4.4 CUSUM & CUSUM SQR Graphs

Cumulative sum test shows that the coefficient of regression is changing systematically or not and the Cumulative sum of the square test shows that if the coefficient of regression changing suddenly.

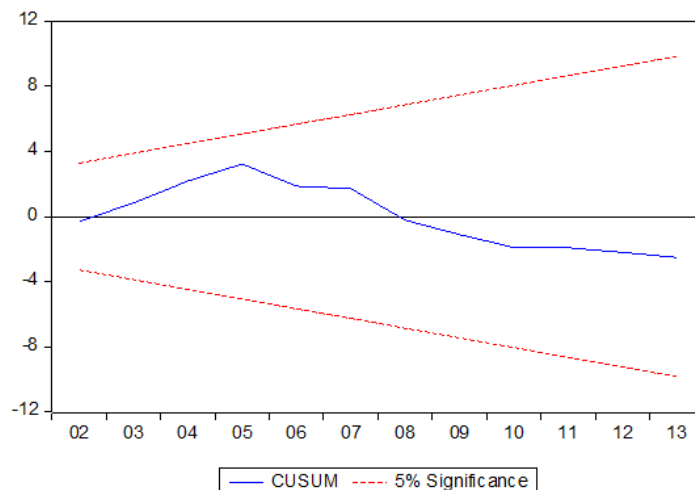


Figure 3 : CUSUM Graph

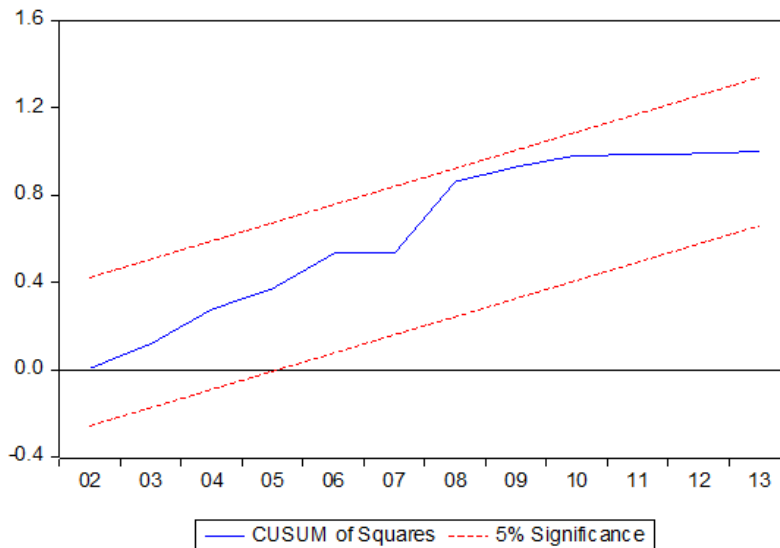


Figure 4: CUSUM SQR Graph

5. Conclusion

The current study has empirically investigated the association in both financial liberalization and private investment in Pakistan during the period 1980-2017. The ARDL analysis revealed that financial liberalization determined by the Real Interest Rate has a substantial negative but mild influence on private investment in Pakistan. The current results have discarded the innovative changes in the coming period in the Pakistan economy. But it has liberalized the economy of Pakistan, while banks raised the rate of saving a deposit to encourage private savings mobilizations. While the interest rate on savings is striking to the investors, the investors will be encouraged to save more. It produces more credit accessible for banks, financial institutes and organizations for the provision of finance to the private stockholders, a higher rate of investment would undertake.

The current study has revealed that Foreign Direct Investment is essential and obligatory for getting private investment, which will ensure sustainable economic growth in Pakistan. The financial system is the backbone of the development of any economic system. So the essential or vital role of the government is to shift finance from the saving sector to the borrower's to spend and invest. This system shuffles finance or credit to the borrowers and in the era of technology, financial novelties and growth rare directly concomitant with private investment. As such matters demand high investment rate that banks or other financial organizations are financed which are working in the private sector. Based on the findings of the study, the researcher suggests the following points:

1. The government and other stakeholders should concentrate on taking careful steps to financial liberalization in the finance sector as it will have an undeviating effect on the private investment and indirect constructive effect in economic growth.
2. Policymakers and the government devise technical strategies, programs, and enticements to assist the adequate mobilized private sector investment in the country aiming to achieve economic growth via vigorous foreign investment.
3. Government of Pakistan should introduce e-citizenships for foreigners (like Estonia) to do business in the country.
4. The Government should also provide registration to foreigner companies so that those companies may be able to make their offices in the country for easy business opportunities.
5. Like China ,the Government of Pakistan should provide low tax rate policy for foreigners. Policy makers should also make policies to provide financial facilities and freedom to foreigners so they come and invest in Pakistan at a large level.
6. The rate of saving deposits should be improved by the banks to inspire the private sector to save armament. If the interest rate on the savings is laudable for the investors, they will be motivated to save more. Hence there will be more credit in the bank and remaining finance sectors lending to the private stockholders (Eigbiremolen & Igberaese, 2013). The decision of this study disclosed or mentioned about inflation that has a positive relationship with private investment. Therefore, the researcher recommends that the government and the policymakers should devise policies to boost price stability. It will increase the private sector investment just as a macroeconomic remedy and finally will enhance the growth.

It is also the need of time that governments should focus on the banking system and other financial institutes to overcome the financial problems and to save from devastation. Stiglitz (2010) also warned about the instability of market structure in the coming period. State Bank of Pakistan (SBP) should also focus on the regularization of the working setup of other commercial banks and the finance relating institutes or companies to achieve premeditated goals. A designed practical approach is required which should identify distinct features of financial liberalization which are damaging the economic growth and ultimately the economic development in Pakistan.

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Does Employee-based Human Capital Breathe New Life into Business? Empirical Evidence from Pakistani Marble Manufacturing Sector

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Abstract

Human capital is a widely discussed phenomenon in the area of human resource management. However, employee-based human capital, which is strongly associated with firm performance, is still not empirically measured in most studies. The present study investigates the role of employee-based human capital on firm performance within the framework of the resource-based view (RBV). Employing a sample of 209 marble manufacturing units, the study confirms the validity of measurement models via CB-SEM. The findings show a strong coefficient of determination for the overall structural model. The regression weight for employee-based human capital in the prediction of firm performance is significant at the 0.001 level (one-tailed). The findings of the study have a number of key implications for academicians and HR practitioners. Limitations and future research directions research are also discussed.

Keywords: Regression, Strategic human resources, Human capital, HR practitioners, Creative and innovative.

JEL Classification: J240

1. Introduction

The resource-based view (RBV) contributes to literature on strategic management; especially Strategic Human Resource management (SHRM) owes a lot to it (Wright, Dunford, & Snell, 2001). RBV postulates that an organisation's success is a source of strategic assets (Barney, 1991); and that human capital is a strategic asset due to its inimitability (Nguyen, 2020; Anifowose et al., 2018; Dang et al., 2018; Bually, 2017; Al-Musali & Ismail, 2016; Ployhart & Moliterno, 2011; Huselid, 1995). Research literature identifies two kinds of human capital; one deals with firm-specific human capital and the other general human capital. While the general part of human capital has been extensively researched, firm-specific

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or employee-based human capital, remains relatively less surveyed and poorly understood (Chowdhury et al., 2014). The present study thus attempts to address this. This is likely to fill research gaps such as the one identified in a study by (Chowdhury et al., 2014). They propose that future research needs to study the combined effect of education and experience-based employees on small firm performance such as profitability. Therefore, education, experience, expertise, productivity, and core skills among employees of a marble manufacturing unit are conceptualised as task-specific human capital. It increases small firm productivity, since employees turn out to be more professional (Nguyen, 2020; Chowdhury et al., 2014; Gibbons & Waldman, 2004). Creative and innovative employees engaged in core operations of a firm are a source of processes, products as well as service innovation. According to Tran and VO (2020), Oppong et al. (2019) and Bontis (1999), human capital is a significant source of innovation: they generate novelty whether of new products and services, or making improvements in business processes (Bontis, 1999). Therefore, this study also considers the intellectual dimension of employee-based human capital and conceptualise this aspect, as employees are creative and innovative to develop new ideas and realise them.

In order to examine the proposed suggestions for future research as identified in a study by (Chowdhury et al., 2014) and Nguyen (2020) call for examining the business performance from the perspective of educated and experienced human resource. The present study thus attempts to address this by conceptualizing that: Does employee-based human capital breathe new life into business?

Furthermore, the current study focusses on the KPK marble manufacturing industry as a case because KPK province is known to be rich in marble. However, regrettably, this industry is characterized by low productivity resulting in a competitive disadvantage (Abdullah, Hadi, & Dana, 2018; Hadi & Abdullah, 2018). Therefore, this study is expected to address these issues.

The present study has importance due to the following facts. This study empirically examines the role of employee-based human capital on marble manufacturing business success, since a study of this nature has never been conducted before. The study also contributes to the gap identified in literature, such as the ones discussed in preceding section. Moreover, the findings of the study will also contribute to the advancement of theory and understanding on strategic HRM in general, particularly in the context of Pakistan and more specifically in the setting of marble manufacturing industry of KPK province.

2. Review of Literature

2.1 *Theoretical Background and Research Hypotheses*

Competitive advantage gained through the execution of resource-based strategy can help accomplish company objectives as well as improve its performance (Anifowose et al., 2018; Seidu, 2011). This is supported by recent empirical studies such as Newbert (2008). The resource-based view is the main theoretical backdrop against which most strategic management research is undertaken. Shafeey and Trott (2014) argue that RBV is a paradigm closely intertwined to various schools of thought. Among these are the RBV of the firm (Barney, 1991, 1995; Barney & Clark, 2007; Wernerfelt, 1984) competence-based view (Hamel & Heene, 1994; Parahalad & Hamel, 1994; Sanchez & Heene, 2004), and the dynamic view of the firm (Winter, 2003, Teece et al., 1997). Despite criticism, however, the effect of RBV on strategic management research is significant. A concerted effort to focus on internal characteristics of organisational resources to explain competitive advantage is a useful tool (Priem & Butler, 2001). This emergent acceptance of internal resources as the basis of an organisation's success has led to increased use of RBV as underpinning the association between human capital and organisational performance.

2.2 *Human Capital*

Tran and Vo (2020), Oppong et al. (2019), Crook et al. (2011), Gathmann and Schoenberg (2010), and Bontis (1999), human capital is the sum total of individual knowledge possessed by all employees of an organization. This knowledge is a primary determinant of performance (Huselid, 1995). Employees generate intellectual capital (IC) through their competence (Roos, Edvinsson, & Dragonetti, 1997), which involves skills, education, and attitude among employees at work. Organization is dependent upon the human capital and that is why it has so much value for an organization (Bontis, 1999). If human capital is linked with task-related knowledge and skills, management ought to put the spotlight on task-specific human capital. According to Nguyen (2020), Dang et al. (2018), and Unger et al. (2011), human capital criterion seems to be particularly useful in predicting the success of organisations. Human capital theory suggests that people contributing in this capital try to get a reward for their investment (Becker, 1964). After the entrepreneurial spirit, those who additionally invest are more likely to pursue greater growth and increased profits in their business compared to those who do not invest much (Anifowose et al., 2018; Dang et al., 2018; Ruiz et al., 2017; Cassar, 2006; Soriano & Castrogiovanni, 2012). According to Becker (1964), theoretical knowledge and skills are also the outcome of investment in education and task-specific experience. With this notion, a majority of studies use education or work experience to measure it (Reuber & Fischer, 1994).

Human capital traits including education, knowledge, experience, and skills are long-time companions of successful entrepreneurial firms (Florin, Lubatkin, & Schulze, 2003; Pfeffer, 1994; Sexton & Bowman, 1985). Social scientists argue that it can be more fruitful in future because of a rise in knowledge-intensive activities at workplaces (Galabova & McKie, 2013; Honig, 2001). Therefore, this study assumes that task-specific employee-based human capital and creative and innovative behaviour increases small firm productivity; since employees tend to be more professional as well as specialists in their job by recurrence.

2.2.1 Human Capital as a Strategic Intangible Asset

Firms own tangible and intangible assets that are necessary for the conduct of operations. Tangible assets, such as plant equipment, physical technology, and property, etc., are easy to imitate and substitute, and can be purchased and sold in open market. Intangible assets are valuable, rare, mostly inimitable, and non-substitutable. They are the fundamental drivers of a firm competitiveness and performance (Nguyen, 2020; Dang et al., 2018; Strobel & Kratzer, 2017; Wright & McMahan, 2011; Barney, 1991).

2.2.2 Employee-based Human Capital and Organisation Performance

Since development and retention of employee-based human capital significantly influences organisational performance (Anifowose et al., 2018; Hadi & Ahmed, 2018; Dang et al., 2018; Hadi, 2017; Ruiz et al., 2017; Chowdhury et al., 2014) this raises the question how many employees working for an organisation ought to be considered for rare and unique resource that leads to a competitive advantage over the rivals?

However, several studies found that this type of capital is strongly related with competitiveness and productivity. In order to survive and compete with organisations large in size; it is most significant factor for small businesses. Whereas, according to Schneider and Lenzelbauer (1993) in comparison with large organisations small scale businesses have limited resources to gain sustainable competitive advantage. However, efficient and effective management of existing resources is requiring to gain sustainable competitive advantage. Large organizations are better than small organizations in terms of easy access to capital and technology. That is why small organizations have to struggle (Tran & VO, 2020; Oppong, Pattanayak, & Irfan, 2019; Dang et al., 2018; Hadi et al., 2016) with limited set of resources and to sustain competitive advantage, they need to be apt in management. Thus, employees skilful and experienced in their fields should be regarded as a resource inimitable in its nature for small businesses.

Thus, it is hypothesised that:

- $H1_a$ Task-specific employee is established sub-construct of employee-based human capital.
- $H1_b$ Creative and innovative employees is established sub-construct of employee-based human capital.
- $H2$ Employee-based human capital positively affects the success of KP marble manufacturing businesses success.

3. Methodology

3.1 Measures and Questionnaire Design

As suggested by Christmann (2000), this study employed a three-stage approach to questionnaire development. First, in order to find out valid measures for constructs, questionnaires were developed based on a comprehensive review of literature. The study also made modifications based on observations made during the exploratory phase. In doing so, we considered Pakistani culture and linguistic characteristics, since our questionnaires were administered in Pakistan. According to Sekaran (2000), data-collection instruments must be translated to the local language¹. Major misunderstanding was noticed, through reverse translation, which ensured the validity (Ferle & Lee, 2003; Hanslin & Rindell, 2014; Wang, Kumar, & Change, 2010; Hadi, Abdullah, & Sentosa, 2016). The opinion of experts was also considered in order to ensure content validity. Finally, a pilot test was conducted, and further revisions and refinements were made. All variables were measured on a five-point Likert scale from “strongly disagree” (1) to “strongly agree” (5).

3.2 Sampling and Data-Collection

In the current study, data was collected from marble manufacturing units based in three industrial estates (i.e., Pirbala, Mardan and Bunir) in the Khyber Pakhtunkhwa (KPK) province of Pakistan. A computer generated² number was used to select 218 respondents from the population of 475. The sample size was determined by means of the formula supported by Krejcie and Morgan (1970). Data was collected by means of self-administered questionnaires.

¹ The researcher is bilingual, with Urdu as first language, and English as acquired language. The original survey instruments were written in English, and then translated to Urdu by the researcher.

² <http://stattrek.com/statistics/random-number-generator.aspx>

4. Analysis of Results

4.1 Uni-dimensionality Tests

4.1.1 EFA for Employee-based Human Capital

The nine items of employee-based human capital were subjected to a Principal Component Analysis (PCA), prior to which, the suitability of data for factor analysis was assessed. The Kaiser-Meyer-Olkin value for the sample in our study was 0.739, exceeding the recommended minimum value of 0.5 (Field, 2000).

BTS for employee-based human capital has a statistical significance with a total variance of 56% for two factors. The researcher used parallel analysis and retained only two factors for next level investigation. These two factors emerged as it has been anticipated when oblique rotation method was used (Hadi, Abdullah, & Sentosa, 2016; Kim & Mueller, 1978; Schmitt, 2011). Within oblique rotation principal, oblimin method of rotation has been used.

Construct validity were also used for employee-based human capital. The study found that the measures used in this study are valid and reliable. The pattern of correlation for the 4 items of task-specific employee-based human capital and 3 items of creative and innovative human capital are related to their respective factors (Table 1). Therefore, all items showed convergence on their respective constructs. Relationships among measures from different constructs are very low, thus the tests also establish discriminant validity.

Table 1

Factor loadings for employee based-human capital items

Items	Pattern Matrix		Structure Matrix		Communalities
	Component		Component		
	Task specific	Creative and innovative	Task specific	Creative and innovative	
Hc1	.888	.023	.896	.340	.804
Hc2	.838	.263	.744	.037	.614
Hc3	.701	.007	.699	.244	.489
Hc9	.545	.264	.639	.458	.469
Hc7	.471	.207	.592	.519	.334
Hc8	.466	.353	.545	.375	.459
Hc5	.059	.872	.253	.851	.727
Hc6	.020	.813	.271	.806	.649
Hc4	.110	.666	.348	.705	.508

Source: Author's Survey results

Dimensions of the employee-based human capital label are task-specific employee capital, and creative and innovative capital. Two items excluded from the instruments because of low loading and cross loading as shown in Table 1.

5.1 Covariance Based -Structural Equation Modelling (CB-SEM)

To test the conception of RBV by means of employee-based human capital, this study chose to employ CB-SEM. Since, CB-SEM is a comprehensive statistical technique for testing the relationship between exogenous and endogenous constructs (Hoyle, 1995).

5.1.1 2nd Order CFA for Employee-based Human Capital

The research framework consists of seven observed, endogenous variables, two unobserved endogenous variables, and 10 unobserved exogenous variables (employee-based human capital, e1, e2, e3, e4, e5, e6, e7, RO1, and RO2). From the result of confirmatory factor analysis (CFA) in Table 2, it is observed that factor loadings of all observed variables or items are adequate³, ranging from 0.54 to 0.86. This indicates that the two sub-constructs confirm the convergent validity test (Nejatian et al., 2011). The remaining number of items for each construct of employee-based human capital are as follows: task-specific (4 items), creative and innovative (3 items).

5.1.2 Goodness of Fit Indices

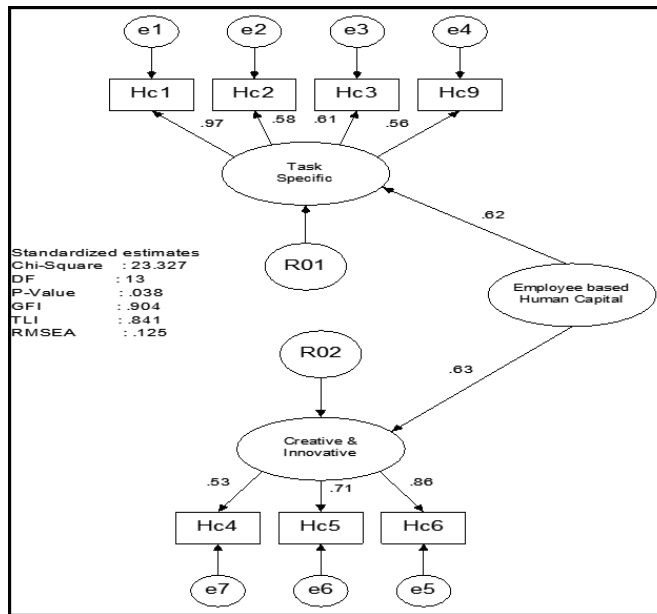
CFA was performed on employee-based human capital. 2nd order CFA⁴ models (hypothesised and re-specified) reveal a comparatively good fit as shown by goodness of fit indices such as X^2/df (<2); p-value (>0.05); goodness of fit index (GFI) >0.95 ; and RMSEA of values <0.08 . The measurement models fit the data well based on evaluation criteria: X^2 , X^2/df , probability value, GFI, CFI, TLI, RMR, and RMSEA (Bagozzi & Yi, 1988). Table 2 shows that the goodness of fit of the re-specified model is better than the hypothesised model.

The first measurement model reveals the overall model fit of $CMIN = 23.32$ ($df = 13$), X^2 probability value = 0.038, GFI = 0.904, AGFI = 0.793, RMSEA = 0.125, NFI = 0.815, TLI = 0.841, and CFI = 0.902. The numbers indicate inadequate model fit (see Figure, 1). In the hypothesised model, the chi-square p-value is insignificant, the value of the RMSEA is 0.125, and the values of AGFI, NFI, and TLI are below the threshold. Therefore, the hypothesised model needs to be re-specified.

³ The factor loadings or regression estimates of latent to observed variable should be above 0.50 (Hair et al., 2006).

⁴ When variables are moderately to highly correlated, higher order factors can be hypothesized as an explanation of the correlations that exist amongst the lower-order factors (Cunningham, 2008).

5.1.3 2nd Order Analysis of Employee-based human capital

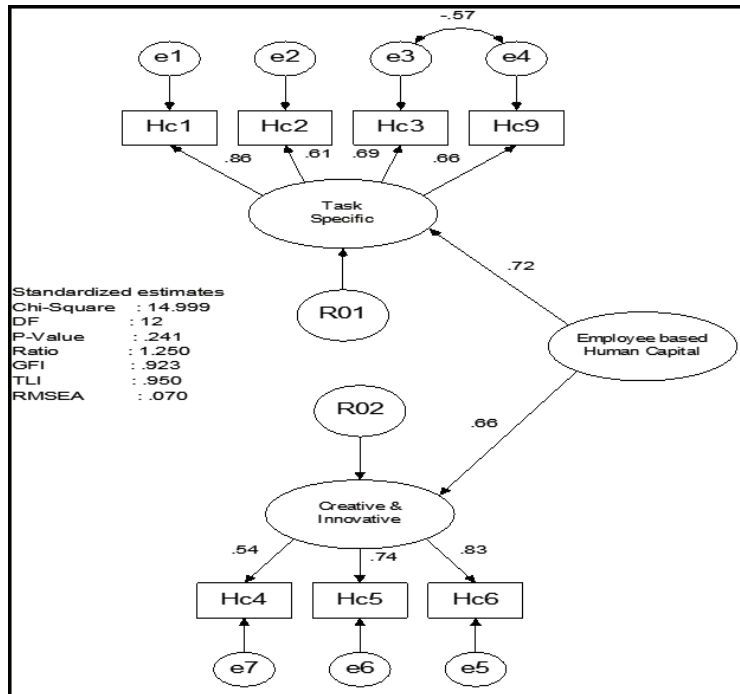


Source: Author's survey result

Figure 1: AMOS Graphics: Illustrated Hypothesized Model

The issue found in the hypothesised model through modification indices is between error items Hc3 and Hc9. This study modified the hypothesised measurement model and addressed the issue through the specification of an error covariance by adding a covariance between items Hc3 and Hc9 error terms.

5.1.4 Re-specified Measurement Model



Source: Author's survey result

Figure 2: AMOS Graphics⁵

The significance of the measurement model is shown in Figure 2, which confirms that task-specific and creative and innovative are sub-constructs of employee-based human capital (H1a and H1b supported). Goodness of fit statistics related to the re-specified measurement model reveal that the incorporation of the error covariance between items Hc3 and Hc9 made a substantially large improvement (Figure 2). The value of chi-square decreased from 23.327 to 14.999, while an increase in the probability value associated with X2 from 0.038 to 0.241 is also an indication of good fit. The study also found improvement over other fit indices: the RMSEA reduced from 0.125 to 0.070, TLI improved from 0.841 to 0.950, CFI from 0.902 to 0.971, GFI from 0.904 to 0.923. The study also achieved comparatively good loadings between latent variables; 0.721 from employee-based human capital to task-specific, and 0.663 from employee-based human capital to creative and innovative capital.

⁵ Illustrated specification of covariance between the error terms associated with the item Hc3 and Hc9.

Table 2
Assessment of High Order Measurement Model

Constructs/Items	CFA										
	EFA	Hypothesized Model					Re-specified Model				
		Loadings	Loadings	R ²	Error Var	CR	AVE	Loadings	R ²	Error Var	CR
Task Specific					0.784	0.491				0.80	0.50
Hc1	0.88	0.97	0.94	0.05			0.86	0.74	0.26		
Hc2	0.83	0.58	0.33	0.66			0.61	0.37	0.62		
Hc3	0.70	0.61	0.37	0.62			0.69	0.47	0.52		
Hc9	0.54	0.56	0.31	0.68			0.66	0.43	0.56		
Creative & Innovative					0.749	0.508				0.75	0.50
Hc4	0.87	0.53	0.28	0.71			0.54	0.29	0.70		
Hc5	0.81	0.71	0.50	0.49			0.74	0.54	0.45		
Hc6	0.66	0.86	0.74	0.26			0.83	0.68	0.31		
Std.Estimate											
Task Specific ← Employee based Human capital		0.62					0.72				
Creative & innovative ← Employee based Human capital		0.63					0.66				

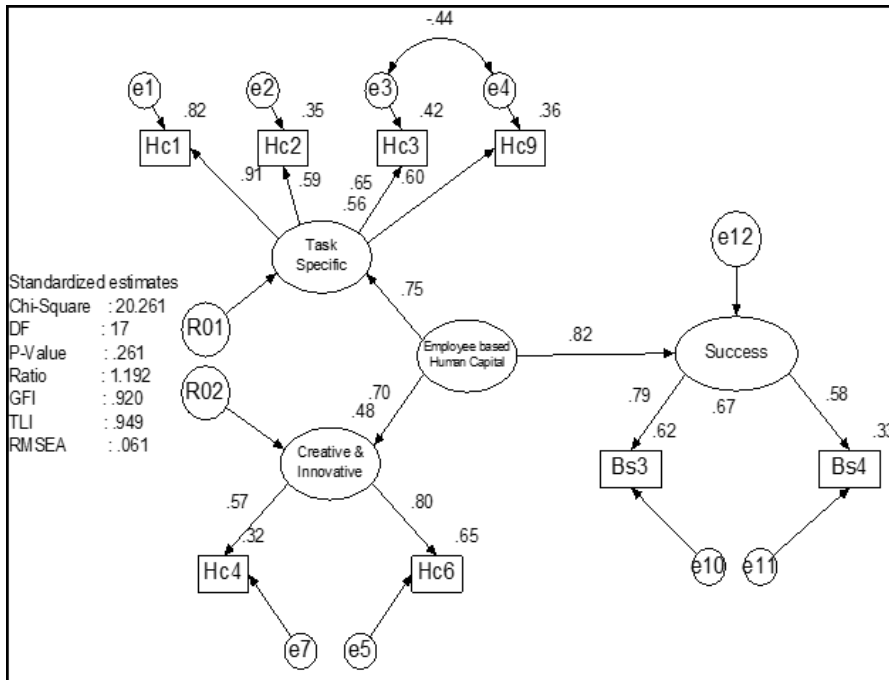
Source: Author's survey result

Composite reliability and AVE. assessed the reliability of the measurement model. Furthermore, from factor loadings and standard estimates, the study confirms H1a & H1b that both sub-constructs are confirmed dimensions of employee-based human capital in KP, marble manufacturing units.

5.2 *Structural Model*

The path coefficient emanating from employee-based human capital → marble manufacturing business success revealed a positive and significant relationship (Figure 3).

5.2.1 Re-specified Measurement Model



Source: Author's survey results

Figure 3: AMOS Graphics; Re-specified Structural Model

The research model was re-specified after the removal of item Hc5. As a result, the model fit the data well, as confirmed by the following indices: p-value=0.283, CMIN/df=1.170, RMR=0.016, GFI=0.923, TLI=0.954, CFI=0.974 and RMSEA=0.58. This study also found the positive and significant impact of employee-based human capital on marble manufacturing business success.

This result signifies that when employee-based capital goes up by one standard deviation, marble manufacturing business success goes up by 0.82 standard deviation. Employee-based human capital explains about 67% of the variance in marble manufacturing business success, meaning that the error variance of business success is approximately 33.4% of the variance of business success itself.

6. Conclusion

This study applies the RBV to empirically measure employee-based human capital role on marble manufacturing business performance. In doing so, the study examines the proposed suggestions for future research by Chowdhury et al. (2014). Diagnostic results indicate that the higher-order construct (employee-based human capital) has strong relationships with its lower-order constructs (task-specific human capital and creative and innovative capital). Consequently, it can be concluded that the survey is not only robust, but also shows strong predictive validity. Statistical assessment of the structural model shows that employee-based human capital does breathe life into the marble manufacturing businesses (with a path coefficient of 0.82); when human capital goes up one standard deviation, the success of marble manufacturing businesses standard deviation rises 0.82 points. This finding suggests that the regression weight for employee-based human capital in predicting marble manufacturing business performance has significant differences from zero at the 0.001 level of one-tailed test. 67% of variance in endogenous constructs is explained by employee-based human capital. It can be concluded that the model is well specified. This finding supports prior disjoint studies of Bontis (1999), Chowdhury et al. (2014), and Unger et al. (2011). Therefore, task-specific capital as well as creative and innovative capital both drive the employee side of human capital, and are thus critical sources of success.

This study incorporated other sources of employee-based human capital to test its role on marble manufacturing business performance. Business performance of marble manufacturers has a critical dependency on its employee-based capital. It means that when employees apply their knowledge and skills, this can significantly influence the performance of a firm. Thus, it is important to develop and maintain task-specific and experience-based employees. Specifically, retaining creative and innovative employees, rather than all employees, is more appropriate for the success of marble industry. In order to benefit from these employees, it is recommended that marble manufacturers should introduce policies and packages to discourage turnover intentions and retain them for a long period.

6.1 *Implications, Limitations and Directions for Future Research*

The findings of the study generate policy-level, theoretical-level, and empirical-level implications. KP marble manufacturing business units' success is contingent upon employee-based human capital. This knowledge enhances the ability of marble manufacturer's management to understand deeply the relationship between employee-based human capital and marble manufacturing business performance. The finding is also valuable for policymakers such as the SMEDA (Small and Medium Enterprises Developing Authority). Moreover, the findings of the study contribute to the link earlier proposed in the study of Chowdhury et al.

(2014). He proposed that to estimate the combined effect of strategic HR resources on small firm productivity it is vital to look for other sources of human capital.

The survey data come from Pakistan, specifically from the province of KPK and this limits its generalizability. More research is required to understand the role of other key and core variables. Results are limited to single respondents' method; future research can enlist multiple-respondent approach. An additional limitation of this study is that success was measured by subjective measures, thus cognitive bias may affect the validity of the instruments.

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Commitment Leading Towards Success: A Study of Bank Employees of Pakistan

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Abstract

Talent competition is so high in today's work environment. Employees are also more concerned regarding those factors, that can bring success in their life. Hence, this article aims to create a linkage of commitment and career success amongst banking sector employees residing in Punjab, Pakistan. Employees (Managers and officers) of public sector banks were taken as a population from which the sample was selected using two-stage cluster sampling. Data was collected using a questionnaire, which was distributed among 240 bankers. The usable response received is from 130 respondents, making the response rate, 54 percent. Data was analyzed by using SPSS and STATISTICA 10.0v software. Through analysis, it is established that organizational commitment (OC) has a direct influence on career commitment (CC). Moreover, two indicators of career success (CS) i.e. a) objective CS and; b) subjective CS appeared as important consequences of career commitment. Therefore, this study generates an insight that commitment to the organization and with career, leads employees towards career success. This is a prerequisite in strengthening the belief of today's dynamic environment that both the employees and organizations are mutually responsible for achieving career success.

Keywords: Career commitment, Organizational commitment, Career success (Objective and subjective), Banking sector, Pakistan.

JEL Classification: Z100

1. Introduction

Is success a matter of fate? Or is there any mechanism through which some people are found to be more successful during the life course than others in their careers? It is a topic of interest for both parties in an organization i.e. employees and employers. In today's dynamic environment, which is a result of rapid globalization and techno-structural changes in an organization's environment, the need to "sustain and flourish" becomes even greater.

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Therefore, in this competitive era, every organization is striving to gain excellence through inimitable resources. These inimitable resources include HR as an asset i.e. human resource (people) and neglect the view that explains HR as a cost (David & David, 2015). Moreover, strategic human resource considers employees as an asset for any kind of organization. Hence, this view is completed with the element of commitment; it is because employees can only be a strategic resource for any firm when they remain loyal and show the attitude of commitment towards their present institutions. So every organization tries to attract, select and retain the best assets for themselves by adopting new career strategies and in turn, employees try to adopt new behaviors which can lead them toward success in their career including both i.e. objective and subjective manners. Also; the importance of employee's commitment to develop a successful career is revealed due to the reality of shorter employment relationships nowadays. Furthermore, both constructs (i.e. organizational commitment-OC & career satisfaction-CS) were considered significant to be researched by many researchers over the years (Wickramasinghe & Jayaweera, 2010; Kang, Gatling, & Kim, 2015).

The banking sector was found to be most appropriate for this research. It is because, due to long working hours and pressure of work, banking employees of Pakistan experience a stressful environment (Ahmed & Ramzan, 2013). Moreover, bankers feel anxiety; emotional and mental stress as well due to which their commitment can downfall (Ahmed & Ramzan, 2013). Therefore, it important to investigate commitment to create awareness about the benefits that employees can get in the form of career success due to their increased commitment.

Goulet and Singh (2002) Also identified that more investigation is required to explain the mechanisms of commitment with the career of employees. Commitment to career is especially a hot topic of research according to researchers in the field of career management (Poon, 2004). With reference to existing literature, most of the studies focused on the factors such as job security and training, career views, career, self-efficacy, and work issues as predictors influencing employee career commitment, career success (Armstrong & Taylor, 2014). In the context of Pakistan, studies were conducted on service sectors like bank and insurance sector but, especially none of these studies concentrated on the employees' career commitment and career success in the banking sector (Pasha, Hamid , & Shahzad., 2017). Furthermore, from the viewpoint of Pakistan's banking sector as well as within academic circles, little remains known about the application and significance of hypothesized links between commitment to organization and career and its effect on the success of employees in their career (Mahmood et al., 2019). Therefore, this study is original because it provides a novel perspective that tests western ideas in the poorly understood developing context of Pakistan. Hence, this research is specially designed for bankers (officer level & managerial level) to explore their commitment level and then creating its link with their success.

1.1 *Problem Statement*

Employers need to know the commitment level of their workers to develop strategies for their retention (Wikijob Team, 2021). It is because, an increased turnover is observed in the banking sector of Pakistan (Reina et al., 2018). The high employee turnover is due to several factors including abusive supervisor behavior, substandard working conditions, and lack of opportunities for growth and development (Saeed et al., 2014; Hassan & Jagirani, 2019). However, it is also evident that the banking industry has made a major contribution to the Pakistani economy over the years (Hassan & Jagirani, 2019). Therefore, it is an important industry for Pakistan and its issues regarding retention need to be under consideration. Furthermore, Fogarty (2013) observed a lot of career mobility among employees in the previous 18 months. Additionally, it can be seen that banking is an emerging sector that provides many opportunities to individuals in their selected careers. Now a day, a banker, might be an economist, computer operator, a human resources officer, a public relations expert, an electronic banking professional, an attorney, a loan officer, an accountant, a teller, an agricultural expert, or a sales representative, etc. (Fogarty, 2013). To conclude, an individual can have many options to be chosen in their career. Therefore, this mobility in a career requires a commitment to gain success in life. So the problem is formulated as follows: “Does Commitment leads towards career success among bankers in Pakistan?”

To evaluate the above-mentioned problem of the study, this research has an objective to determine the role of organizational commitment and career commitment for gaining objective and subjective career success among banking sector employees of Punjab, Pakistan. Whereas, few sub-objectives include:

- i. Finding the association of organizational commitment and career commitment among bankers
- ii. Finding the link between career commitment and career success including the dimension of objective (OCS) and subjective (SCS), among bankers.

2. *Literature Review*

2.1 *Organizational Commitment*

Commitment with the organization can be explained as, a) an attachment to the institution or the organization to which a person belongs and is recognized by his intent to be loyal with it; b) attachment with the institution's goals and values, and; c) willingness for a great level of determination on its behalf (Porter et al., 1974). Moreover, it was found by Meyer and Allen (1991) that OC is comprised of three main themes including a) affective, b) continuance and; c) normative commitment and according to them, all employees have

different desires, requirements and commitment levels to stay with any organization (Meyer & Allen, 1991).

2.2 Career Commitment

According to Greenhaus, Callanan and Godshalk (2010), there are two views related to career. According to first view, career is seen as quality or property of an organization or occupation, where it is defined as a series of job positions occupied by any employee in organizational life. However, according to second view, career is seen as a quality or property of an individual, where he/she is responsible for pursuing a unique career (Greenhaus et al., 2010). However, commitment represents the “emotional and psychological ties of an employee with their current institution” (O'Reilly & Chatman, 1986). This psychological bond includes internalization, identification and compliance (Nehmeh, 2009). Hence, career commitment as a whole term explains the identification of linked jobs in a specified field during the life span (Aryee, 1992). According to Blau (2017), CC is defined as an individual's attitude towards his/her vocation or profession. Moreover, Colarelli and Bishop (1990) described CC as, commitment and development of career goals.

2.3 Career Success

Another important construct of this study that is examined here is career success. It is defined as the “series of work experiences and its psychological effects that arise from one's professional experiences” (Seibert & Crant, 1997). Whereas, career success (CS) is represented by a bundle of achievements that are derived from an individual's work experience that can be either real or perceived (Judge et al., 1999). It includes work and psychological outcomes which are consequences of work-related practices and experiences (Seibert & Crant, 1997).

One component of CS is objective career success (OCS) that can be observed, measured, and can be checked through salary, status and promotions; while subjective career success (SCS) includes reactions of a person towards his career experiences (i.e. job satisfaction & career satisfaction) (Andrea & Abele, 2009). Many of the career researchers defined career success to be based on both intrinsic and extrinsic factors i.e. CS is to be explained in terms of objective & subjective success gained in one's career (Judge et al., 1995; Nabi, 1999). According to Judge et al. (1995), objective career success which is referred to as extrinsic factors consists of the outcomes including, salary level and promotion etc. and therefore these are more objective in nature than intrinsic factors (i.e. SCS). Moreover, Judge et al. (1995) elaborated that OCS takes into account the third-person viewpoint, while subjective career success is about one's own viewpoint of success (Nabi, 1999).

2.4 Hypothesis Development

Based on previous body of knowledge, following hypothesis are developed for this study:

2.4.1 Organizational Commitment and Career Commitment

It was supported by existing body of knowledge that, employees who are more committed, will be more involved in their jobs and can prove themselves as assets for their organization (Mohsan et al., 2013). Furthermore, commitment to an organization is directly associated with CC (Goulet & Singh, 2002; Mahmood et al., 2019). Aryee (1992) also pointed out in his research that OC acts as an antecedent of CC. Furthermore, Therefore, it is expected that;

H1: Increase in organizational commitment leads towards increases in the career commitment of employees working in banking sector

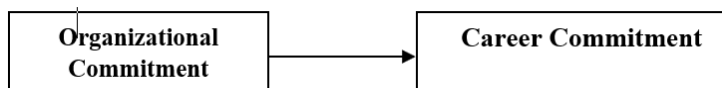


Figure 1: A Conceptual Framework (Model 1)

2.4.2 Career Commitment and Career Success

Although career success in terms of both dimensions i.e. objective (OCS) and subjective career success are positively related but these are distinct in nature empirically as can be seen by its diverse predictors and consequences (Ng et al., 2005). A study conducted by the Coast Guard Academy of U.S. explains that there is direct & positive relation between JS and CC (Laurel & Gouleta, 2002). To add more, another research concluded that career commitment of an employee strongly influences his career satisfaction especially at the stabilization stage (Aryee, Chay, & Chew, 1994). According to Kiesler (1971), there is a positive link between commitment with one's career and subjective CS i.e. a person who's to his/her career, experiences more positive feelings toward his/her career than those who have a lesser level of commitment. Whereas it was also found by Carson et al. (1999) that career commitment leads to career satisfaction for the medical librarians, in a study of "effect of career commitment and OC on work-related consequences". Moreover, the same results are revealed by Lee, Carswell, and Allen (2000) in their research that career commitment (meta-analytic) is positively related with career satisfaction. Another study which is conducted by Poon (2004) found that emotion perception moderately affects the relation of commitment to the career with success in their career. Poon (2004) also explains that if employees are committed to their career then it will give them benefit in the form of success gained objectively (in the

form of higher salary level). However, he also found that it did not create moderating effects between the career commitment and success gained subjectively (i.e. in the form of satisfying career). On the other hand, Ballout (2009) concluded that commitment to career can leads towards outcomes in the form of OCS i.e. increase in salary level as well as in the form of SCS i.e. increase in career satisfaction. Therefore, it is expected that;

H2: Increase in career commitment leads toward objective career success of employees working in banking sector.

H3: Increase in career commitment leads toward subjective career success of employees working in banking sector.

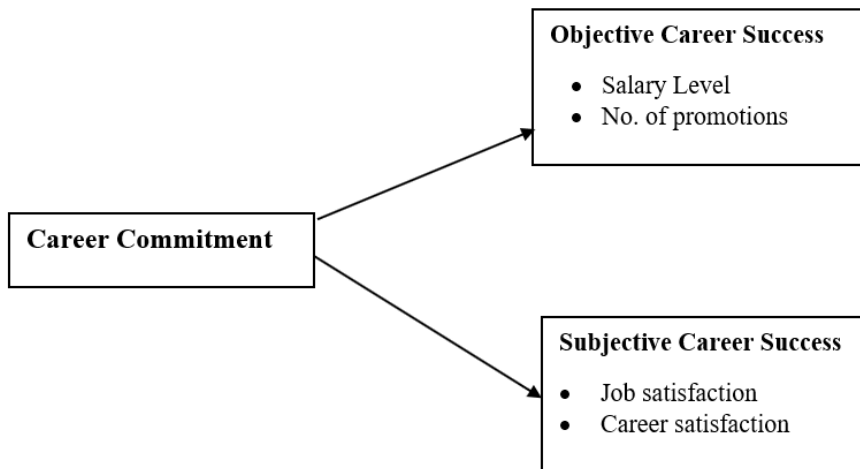


Figure 2: A Conceptual Framework (Model 2)

2.5 Theoretical Background

The broaden and build theory posited that positive emotions increase a person's well-being by building up physical, psychological and social resources (Fredrickson, 2004). Furthermore, this theory states that positive emotions build positive behaviors of employees. According to Scott and Bruce (1994), the mind state makes the environment of organization that resultantly makes the attitudes and behaviors of personals, which in turn can bring career success in the lifetime of employees (Singhal & Rastogi, 2018). Hence this theory explains the conceptual framework of this study, which posits the relationship of organizational commitment and commitment of bankers with their career, that ultimately brings success in their life time work experiences.

3. Methodology

3.1 *Research Approach*

To explain the knowledge claim, three schools of thought are available for guiding the design of whole study. These views include a) positivism, b) interpretivism, and; c) pragmatism. According to Creswell (2009), a suitable approach from these three approaches is totally dependent on the nature of problem under study. For example: if the problem is to find out or explore the causes of certain criterion or the purpose of study is to test theory and provide explanation, then positivism paradigm (quantitative approach) is most suitable. For this research, positivism approach was followed because the main aim of this article is to find out the antecedent and outcome of CC. Therefore, this research was carried out by using questionnaire for data collection and statistical analysis for drawing results (Creswell & Clark 2017).

3.2 *Sample and Data*

Zikmund (2010) explained sampling as a process of selecting a sub-portion from a larger population as a representation of the whole targeted population, in order to draw conclusions about that. However, that concrete element which is to be observed for analyzing a whole phenomenon is represented as a sampling element; that is an individual for this study. The targeted Population included the personnel (managerial level + officer level) employed in public sector banks of Punjab, Pakistan. Targeted Public sector banks include 'National Bank of Pakistan (NBP) and Bank of Punjab (BOP)'. The process of sampling started, by dividing the targeted population of Punjab according to their geographical locations. That is, 9 divisions of Punjab were considered as clusters. As a result of SRS i.e. simple random sampling, Gujranwala division was selected. At second stage, the selected divisional cluster was further classified into 6 sub-clusters i.e. according to districts (see Figure 3). To take the representation from all these districts, equal number of branches i.e. 5 from each bank and from each district was selected randomly to be included in a sample. By collecting data from 4 employees per branch of each bank, total 240 employees were targeted.

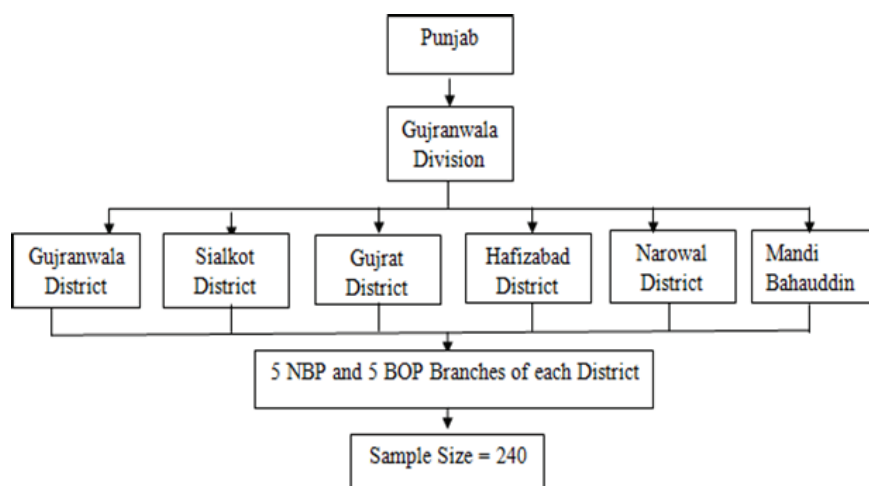


Figure 3 : Sample Design

Out of 240 questionnaires distributed 130 responses were received and the overall response rate remained 54%. The table 1 shows one hundred and two (102) of the 130 people who responded were male (78 Percent) and the rest of the respondents were females i.e. (28) of (130). 53 of 130 respondents (41 percent) did not get any promotion during their career, 74 respondents (57 Percent) were promoted for less than 5 times and only 3 of them (2 Percent) were promoted more than 5 times. 67 out of 130 respondents (51 Percent) got less than 30,000 salaries in a month, 27 of them (21 Percent) got more than 30,000 but below 50,000, 27 of them (21 percent) had more than 50,001 but less than 80,000 and only 9 respondents had a salary range of above 80,000.

Table 1
Data and Descriptive Statistics

Gender	Male	102 (78 %)
	Female	28 (22 %)
Number of Promotions	None	53 (41 %t)
	Less than 5	74 (57 %t)
	More than 5	3 (2 %)
Salary in a Month	30,000 or less	67 (51 %)
	30,001-50,000	27 (21 %)
	50,001-80,000	27 (21 %)
	80,001 or above	9 (7 %)

3.3 *Measurement Instrument*

For this study, questionnaire was used as a data collection method. This questionnaire was distributed personally as well as through e-mails by creating its online form. Pretesting of questionnaire was done by filling it from 30 respondents from different branches of public sector banks operating in Gujrat. Measurements related to each variable is given below:

1. Organizational Commitment was measured through a questionnaire which Mowday, Porter, and Steers (1982) developed containing 15 items measured by using a seven-point scale ranging from 1- strongly disagree to 7- strongly agree.
2. Career Commitment was measured using 8 items adapted from Colarelli and Bishop's (1990) work. This 7 point-likert scale was also used by Chay and Bruvold (2003).
3. Objective Career Success was measured by using two variables i.e. salary level and some number of promotions. The salary level was measured by dividing salary into different ranges and asking people to indicate in which category they fall. However, promotion was measured by simply asking people about their number of promotions.
4. Subjective Career Success was measured by using two variables i.e. job satisfaction along with career satisfaction. Job diagnostic survey was adapted to measure job satisfaction developed by Hackman and Oldham (1980). Items were measured by using a seven-point scale ranging from strongly disagree to strongly agree. Career satisfaction was measured by a scale created by responses to two questions related to careers which were adopted from the work of Myrtle et al. (2011). First, respondents were to tell their satisfaction with the progression of their career on a 5-point Likert scale which ranged from very dissatisfied to very satisfied, and secondly, respondents were asked how would they assess their progression of career comparative to people with alike opportunities on 5 point Likert scale ranging from very much worse to very much better.

4. **Results**

4.1 *Common Method Bias Assessment*

Harman (1976) described a technique to check the common method variance in SPSS, named as single factor technique. Following this technique, all items were added to principle component matrix with no rotation. Results exhibited that single factor explained 31.91% of total variance of items, which was well below the threshold of 50%, which implies that there is a low chance of common method variance bias in data (Harman, 1976).

4.2 *Measurement Model*

4.2.1 *Reliability Test*

Reliability of data collected via questionnaires was ensured through Cronbach's Alpha technique. Cronbach's Alpha was estimated for each construct as well as at the collective level. Cronbach's Alpha for the all of variables is given in the following table 2:

Table 2
Reliability Statistics

Constructs	Cronbach's Alpha
Career Commitment	0.78
Organizational Commitment	0.89
Objective career Success	0.85
Subjective career success	0.82
Whole Questionnaire	0.94

4.2.2 *Validity Analysis*

CFA is an analysis technique that testifies how strongly dimensions of concerned variables represent their corresponding construct as a whole. STATISTICA 10.0v was used for this. P-value is confirmed if it is less than 5 percent (i.e. sig. value less than 0.05). Through confirmatory factor analysis (CFA), variables (career commitment, organizational commitment, objective and subjective career success) were confirmed. All items which were confirmed through confirmatory factor analysis were included for analyzing the result of study. Whereas, four items of construct organizational commitment were not confirmed, and eliminated for further analysis.

4.3 *Structural Model*

4.3.1 *Goodness-of-fit*

Goodness of model fitness can be assessed through variety of fit indices. For this purpose, hypothesized model of this research study was evaluated on specified fit indices. The value of (X²/d.f) is 2.16, GFI and AGFI indices are 0.894 and 0.842 respectively. RMSEA is 0.068. Hence, all of the fitness indices met the criteria of their recommended values

approximately. Therefore, hypothesized model (i.e. relationship of organizational commitment with career commitment leading towards objective and subjective career success) is acceptable.

Table 3
Goodness of Fit Indices for Structural Model

Name of Index	Index Value	Threshold Value	Comment
DF	347	---	---
CMIN	2.16	≤ 3 good; < 5 sometimes permissible	Excellent
GFI	0.894	≥ 0.9 ; > 0.80 also acceptable	Good
AGFI	0.842	≥ 0.9 ; > 0.80 also acceptable	Good
RMSEA	0.068	≤ 0.08	Good

4.3.2 Hypotheses Verification

The model given below summarizes the relationship of organizational commitment as an antecedent of CC and outcomes (objective & subjective career success) derived from career commitment. All variables showed noteworthy relationships with career commitment.

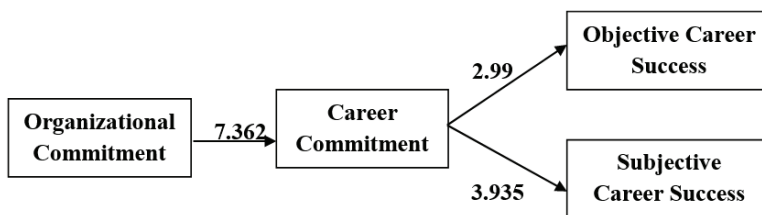


Figure 4: A Path diagram of final model

H1 anticipated positive relation of organizational commitment to career commitment. T-value (7.362) indicates a significant association between these variables while correlation (.641**) among these two variables show highly positive relation between these, suggesting the support for H1. H2 and H3 were also proved; as T-value derived through Structure equation model shows a significant association of career commitment with OCS (2.99) and with SCS (3.935). Correlation analysis indicated a significant association of CC with OCS (.277**) and with SCS (.520**), suggesting the support for both hypotheses H2 and H3. The correlation table is given in table 4.

Table 4
Correlations

Variables	1	2	2	4
OC	-----			
CC	.641**	-----		
OCS	.373**	.277**	-----	
SCS	.674**	.520**	.323**	-----

Note. OC= organizational commitment; CC= career commitment; OCS= objective career success; SCS = subjective career success. N=130. Pearson's correlation is used.

**p< 0.01

5. Conclusion

This study is important because it can be used to improve the commitment level of workers in any business by making an organization aware of those aspects of organizational life which can influence the level of commitment, this can ultimately yield the outcome in the form of success that employees can gain in their careers. Also understanding the factors which can affect career success is important, as it is necessary to keep employees competent and motivated for their work. This study has shown that career commitment is predicted by organization commitment, consistent with the conclusions derived by Goulet and Singh (2002) and Aryee (1992) and in turn career commitment predicts the OCS including both the number of promotions and salary level. Career commitment also predicted SCS including job and career satisfaction. Results of this research find its support from the research work of Poon (2004) and Ballout (2009), which state that people achieve more success in their careers, both objectively and subjectively, only if they are more committed to their career.

5.1 Implications of the Study

This study also gives input to the managers of the organization that how they can measure career success of their employees. Also, if organizations (e.g. banks) want that their employees to achieve objective and subjective success in their careers then consideration must be towards increasing their commitment with their present institution, in addition to developing and enhancing their commitment with career. Moreover, this study enhances the understanding of the employers, especially in Pakistan, about career commitment which itself is an explanation about the achievement of better career outcomes by their employees. As this research testifies the more employees will be committed to their careers, they will achieve higher success in their careers. Also, by studying the degree of influence of an organization on the career commitment of employees and how this commitment to career influences

employee's career success, strengthen the belief in today's dynamic environment that both the employees and organizations are mutually responsible for achieving career success.

5.2 *Limitations and Future Studies*

Some of the problems that were faced included vague survey responses because of personal problems of the correspondents. Data received also included incomplete responses from the respondents which might be due to lack of time. The research was conducted only on bankers working within one division of Punjab, so this restricted the research results to be generalized for one division only. In this research, the mediating variables are not examined that could show interference in the relationship of career success and career commitment; also some of the other antecedents of career commitment are neglected in this study which gives an opportunity for future research. It would also be an exciting opportunity for the researchers to examine the performance and motivational mechanisms for the explanation of CC effect on career success. Moreover, due to its cross-sectional nature, this study provides an opportunity to future researchers to conduct this study in longitudinal study design because the field is emerging and developing continually. To conclude, apart from its limitations, this study still gives its input towards the literature relating to the career commitment of the employees and their objective and subjective career success.

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COVID-19, Impact of External Environment in the Formation of Students' Satisfaction as Well as Subjective Well-Being in the Context of E-learning

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Abstract

This paper intends to explore the role of external influences (i.e. E-environment and Technology-Internet-Quality) associated with satisfaction of the customer, leading to customers' subjective well-being. The study explores the fundamental role of the environmental and technological perspectives in the generation of consumer's response behaviors through the cognitive process in the context of e-learning. Using a convenience sampling technique, data was accumulated from three universities having e-learning as their mode of delivery of education. 1,338 students of e-learning responded to the survey questionnaire. The results corroborate the assertion laid in the hypothesis that e-environment, psychological and technological influences of the students (customers) play a significant role in the development of customer satisfaction which leads to the subjective well-being. The findings of the study contribute in building a rigor of social cognitive theory in the context of e-learning. Consumer's cognitive process postulate that customer's e-environment and technological factors significantly impact the psychological characteristics which ultimately affects response behaviors of customers. The concurrent impact of customer satisfaction and subjective well-being in the divergent fields of technology, consumer behavior and individual psychology have remained unexplored. This foray would therefore help in understanding the complex relationship, especially when viewed in the backdrop of students' dissatisfaction with the e-learning mode of education in the obtaining environment of COVID-19. Besides filling the existing void in the literature, this study will thus help the policy makers, academicians and practitioners to address these intricate issues affecting student's satisfaction so as to smoothly roll out the e-learning mode of education.

Keywords: COVID-19, E-learning, E-environment, Technology-Internet-Quality, Subjective well-being.

JEL Classification: Z000

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1. Introduction

While the health workers throughout the world continue to control the uncontrolled and devastating effects of COVID-19, its effects have been felt in all walks of life (Cathy Li & Lalani Farah, 2020). Resultantly, the world is no longer the same old world, neither would it be even in the post Corona environment. The world has to come to terms with the “New Normal” in every walk of life. Like all other fields education sector has been one of the most affected sectors having direct impact not only on the knowledge economy but also impinged upon other avenues (Arora & Srinivasan, 2020). While e-Learning had assumed due significance in pre-COVID-19 days, it became the only available instrument to dispense education in the ongoing lock down phenomena, wherein the entire Spring-2020 semester throughout the world has been conducted through the unorthodox, e-Learning mode of education (Markets, 2020). This innovative and disruptive mode of education came to the rescue of educationist throughout the world (Arora & Srinivasan, 2020). It is also a fact that in COVID-19 environment, the bulk of the students have expressed their frustration over the mode of delivery through e-Learning, majority expressing their dissatisfaction with the quality of internet in remote areas and teachers’ lack of preparedness for the delivery of contents through this mode of education (Ichsan et al., 2020). With e-Learning becoming the main stay of education system, the need for identifying the factors impacting the students’ satisfaction and resultant well-being from the e-Learning is felt more than ever.

The educational landscape and its support process of higher education has witnessed numerous changes owing to the introduction of a variety of technology enabled e-Learning tools. However, the real impact of e-Learning on the education sector came to the fore during the ongoing lock down due to COVID-19, wherein, it remained the sole tool through which education is being dispensed globally. Previous research posits of having no significant difference in the outcome of learning between conventional brick and mortar learning methods vis-à-vis e-learning mode of education delivery (Biner et al., 1997; Allen et al., 2002). Studies carried out on the subject revealed e-learning to be a feasible mode of delivery of education with an additional advantage over conventional learning modes. The span of advantages of e-learning over conventional learning modes included the flexibility of space and time. Moreover, convenience of asynchronous participation, self-paced and learner centered, universal availability, permanent logging of the learning activities, besides a host of analysis tools (Bowers & Kumar, 2015; Zhang et al., 2004).

Though, a lot of resentment surfaced against e-Learning as the sole mode of education, but it has also been acknowledged that students would have suffered immensely in terms of time and engagement. It is presumed that having found its place in the educational industry, e-Learning cannot be wished away even in post-COVID environment. There is, therefore,

a need to assess the students' satisfaction from e-Learning to formulate policies and strategies that would lead to greater satisfaction of students leading to their well-being.

The review of prior literature on student satisfaction and student wellbeing in the context of e learning suggests several open research gaps specifically in COVID 19 environment. Though significant amount of research advanced our understanding towards success factors of e-learning such as information quality (Cidral et al., 2018), service quality (Pham et al., 2019), self-efficacy and learner-content (Alqurashi, 2019), student satisfaction (Hamidi & Jahanshaheefard, 2019) and students well-being (Shah, 2016). However practitioners still face challenges in developing e-learning model successfully (Al-Fraihat, Joy, & Sinclair, 2020). Research observers call for further research to examine the key drivers of student satisfaction and subjective wellbeing in the context of e-learning (Alqurashi, 2019; Puška et al., 2020; Vate-U-Lan, 2020), specifically in context of developing countries (Pham et al., 2019) such as Pakistan. The current study aims to explore the existing gap in literature by examining the drivers of student satisfaction and subjective wellbeing in the context of e-learning. This study utilizes social cognitive theory as a theoretical lens to model the e-learning environment, technology quality, student satisfaction, and student subjective wellbeing.

2. Literature Review

2.1 Theoretical Framework

Determining the level of students' satisfaction should be considered as an essential aspect for determining the needs of the students and resultant designing their services accordingly (Ryan & Poole, 2019). The popularity and wider currency of e-Learning having an inherent advantage of empowering students to choose from a wide variety of menu without being chained to the physical, financial and geographic limitations was the main reason for the wider acceptability of this innovative mode of learning, however, in the lockdown days, it has become a necessity rather than a choice (Händel et al., 2020; Martin & Betrus, 2019).

Social cognitive theory is a widely used theoretical approach in education, psychology and communication (Bandura, 1999). Social cognitive theory provided a framework of psychosocial mechanisms of knowledge acquisition through experiences, social interactions and outside media influences (Bandura, 1999). Social cognitive theory is used to explain multiple consumer behaviors such as green consumer behavior (Lin & Hsu, 2015), sustainable consumption behavior (Phipps et al., 2013), digital piracy (Lowry, Zhang, & Wu, 2017), behavioral economics (Reisch & Zhao, 2017), adoption of internet banking (Boateng et al., 2016) and consumer satisfaction and well-being (Bandura, 2011; Tang, Guo, & Gopinath, 2016).

Social cognitive theory advocates that an individual's knowledge acquisition can be directly related to observing others within the context of social interactions, experiences, and outside media influences (Lim et al., 2020; Schunk, 2012). Applied on the context of e-learning it can be postulated that e-environment and technology quality significantly drive student satisfaction that ultimately turn into subjective wellbeing.

2.2 Research Hypotheses

2.2.1 *e-Learning Environment, Student Satisfaction and Subjective Well being*

Out of the numerous definitions offered by many scholars, few definitions are appended; e-learning is to use the potential of information and communication technologies (ICTs) to support and facilitate the education process (Mousa et al., 2020). The multimedia technologies used over the internet have completely revamped knowledge delivery. This changed paradigm has catalyzed e-learning to become an alternative to the conventional class room education offered in physical environment (Zhang et al., 2004). Pre-Corona, e-Learning had scaled up exponentially throughout the world. Whereas, in conventional class room environment, instructor control the pace of learning as well as the content to be delivered, e-learning offers flexible learning environment which is characterized by learner centered, self-paced and having the liberty of time and space constrictions (Fallah & Ubell, 2000; Hiltz & Turoff, 2002; Morales, Cory, & Bozell, 2001; Piccoli, Ahmad, & Ives, 2001; Zhang et al., 2012). Learning environment is described as the "The setting in which learning takes place; may be in physical-classroom or virtual-web based environment" (Piccoli, Ahmad, & Ives, 2001). e-Learning environment is also denoted as a Virtual Learning Environment (VLE), Course Management System (CMS), Knowledge Management System (KMS) as well as Learning Management System (LMS), (Moore, Dickson, & Galyen, 2011). The digital aspects of courses in the web based learning mode are denoted by Virtual learning environment is the platform.

Technology-Mediated Virtual Learning Environment" (TVLE) is prescribed as "computer-based environments which are relatively open systems, that permits interacting and sharing of knowledge amongst participants and instructors' and which provide access to a wide array of resources" (Chou & Liu, 2005). The lack of Learner-Instructor contact has been compensated through various measures including; interactive e-classroom, non-linear interactive digital videos, virtual mentoring, and learning by asking (Shah, 2016). Based on "Constructivist Learning Theory" (Qiu, 2019) and "Cognitive Information Processing Theory" (Eom, 2019), the principles that drive these concepts are multi-media integration, interactivity, self-directivity, just in time knowledge acquisition, and last but not the least is the flexibility (Zhang et al., 2004). The inadequately prepared or less than prepared e-learn

ing system on the other hand, having insufficient learner-content interactively and lack of flexibility tend to create more confusion, reduced learner interest and lead to frustration rather than facilitating the learning environment (Shah, 2016). e-environment was found as a significant contributing factor in developing satisfaction (Shah, 2016; Shrestha et al., 2019) and wellbeing (Misopoulos, Argyropoulou, & Tzavara, 2018). Based on the review of the literature and framework, the hypotheses formulated from E-Learning Environment (EENV) are as under: -

Hypothesis 1: E-environment has a significant and positive impact on customer satisfaction.

Hypothesis 2: E-environment has a significant and positive impact on student subjective well-being.

2.2.2 Technology-internet quality, Student Satisfaction and Subjective Well being

Whereas, technology has always impacted the learning process, its impact could not be felt more significantly, when the entire education process from toddlers till PhD level of education had to be imparted through the technology assisted e-Learning platforms (Arora & Srinivasan, 2020). But for the e-Learning, the entire architecture of education system would have crumbled in the lock down days. Technology having now been embedded in the learning systems, it will continue to be the main edifice of education in the days to come, thereby completely reshaping the landscape of education (Price et al., 2017; Shah & Attiq, 2016). The concept of 'Technology Enhanced Learning is corollary to the customization of technology in the learning field' (Healey, 2018). Technology Enhanced Learning encompasses learners and technology provided socio and technological innovations which support educational practices in diverse settings (Persico & Steffens, 2017).

Technology quality has been explained as the "learners' perceived quality of Information (Al-Fraihat, Joy, & Sinclair, 2020). Having computer as its base and heavily dependent on technology, the success of e-Learning thus becomes completely dependent on the quality of technology (Freeze et al., 2010). The effectiveness and success of learning depends on the reliability and quality of technology as well as access to Hardware and Software (Zhou et al., 2019). Research has drawn evidence that technology applications and e-learning have over a period of time become synonymous and complementary to each other, the use of technology having positive effects on the effectiveness of e-learning (Yacob et al., 2012). It has also been ascertained that the enhancement of knowledge and increased attention in searching knowledge is co-related to the use of new technology (Yacob et al., 2012). A reliable and high quality of technology thus the edifice for the effectiveness of e-learning, a fact amply corroborated in the lock down days (Markets, 2020; Urs, 2013).

Internet quality is denoted as “learners’ perceived quality of network including network transmission speed” (Sun et al., 2008). The role of internet in e-learning is pivotal as it has transited from programmed education and learning machines towards internet based learning which is now being used as a medium of communication between human subjects of education (Simuth & Sarmany, 2014). The frustration caused and dissatisfaction expressed towards e-learning in the third world countries in general and Pakistan in particular in the ongoing lock down due to the pandemic is primarily due to the oscillating quality of internet, particularly in remote areas of the Country (Saeed, 2020). The ongoing lock down has amply proved that the flexibility provided by the online education allows students to determine their own pace, and makes them responsible for their own learning through the enhanced student centeredness (Cathy & Lalani, 2020). The forced adoption of online learning mode of education has been made possible due to the tremendous rise in the ICT and has impelled all educational institutions to develop new online delivery methods (Hogan, 2019; Shah & Attiq, 2016). Empirically, it has been corroborated that e-learners’ satisfaction is affected by the technology dimension, consisting of technology quality and Internet quality (Toufaily, Zalan, & Lee, 2018).

As seen in the ongoing online education dispensation, the effects of technology learning environment through technology enhanced learning and the adoption of technology depends to a great extent whether it is user friendly and what the quality of technology is. This will lead to greater user satisfaction or otherwise and establish a positive correlation between quality/reliability in IT and learning effects (Cathy & Lalani, 2020; Wambua, 2017). Positive co-relationship has been determined between the impact of digitization on academic achievement, critical thinking and learning motivation (Chou, Wu, & Tsai, 2019). The existence of quantifiable relationship between subjective well-being and the use of technology has been proved when technology is used for learning purpose (Cudd & de Witte, 2017). Based on the review of the literature and framework, the hypotheses formulated from Technology and Internet Qualities are as under:-

Hypothesis 3: T-I-Quality has positive impact on student satisfaction.

Hypothesis 4: T-I-Quality has positive impact on student subjective wellbeing.

2.2.3 E-Learning, student satisfaction and subjective wellbeing

Satisfaction can be denoted as an individual’s feelings of pleasure or disappointment, which results from the comparison of the perceived performance of the products in relation to expectations (Kotler & Keller, 2006). Learners Satisfaction on the other hand is described as the “perceptions of the extent to which their learning experiences were helpful and enjoyable” (Kuo et al., 2014). Student satisfaction being an enjoyable and a successful

phenomenon, learner's satisfaction is derived in a conventional learning environment that blends online elements. Having direct impact on the adaptability of a system, student satisfaction could be identified as the positive feelings or students' attitude towards their learning activities (Chen, Hsiao, & Lee, 2005).

Subjective well-being (SWB) is used interchangeably with 'happiness' and life satisfaction (Diener, 2009; Diener, Oishi, & Tay, 2018) and is described as satisfaction or happiness with life as a whole or life in general (Andrews & Robinson, 1991). SWB reflects an overall evaluation of the quality of a person's life from her or his own perspective (Diener, Lucas, & Oishi, 2018). Being a vastly explored subject, SWB is considered as an important phenomenon by virtue of psychological SWB consists variables like satisfaction with life, work satisfaction, and that of marriage. The other variables could be feelings of fulfilment and meaning, frequent experiences of pleasant emotions, and the infrequent experience of unpleasant emotions (Scollon et al., 2004). In simple words, SWB is a phenomenon in which life is evaluated in quotient of satisfaction and a balance between positive and negative effects. Other than these effects, it encapsulate life satisfaction and happiness (Chau et al., 2018).

Studies have found that satisfaction of fundamental needs is reported to be resulting in SWB or happiness (Deci & Ryan, 2002). Studies have shown that there exists a positive relationship between SWB and life satisfaction, therefore, individuals possessed with high levels of subjective well-being experience higher life satisfaction and a higher levels of happiness (Diener & Seligman, 2002; Suldo & Huebner, 2006). To ascertain the effects of variant orientation differed in terms of SWB, a study proved the existence of differences in SWB between students having goals related to self-improvements and students having avoidance tendencies. A need was therefor felt to include the measures of SWB when evaluating the role of goal orientation in learning (Tuominen, Salmela, & Niemivirta, 2008). Based on the above discussion, there is a need to establish a hypotheses here. The hypotheses formulated is:

Hypothesis 5: Student satisfaction has positive impact on student subjective wellbeing

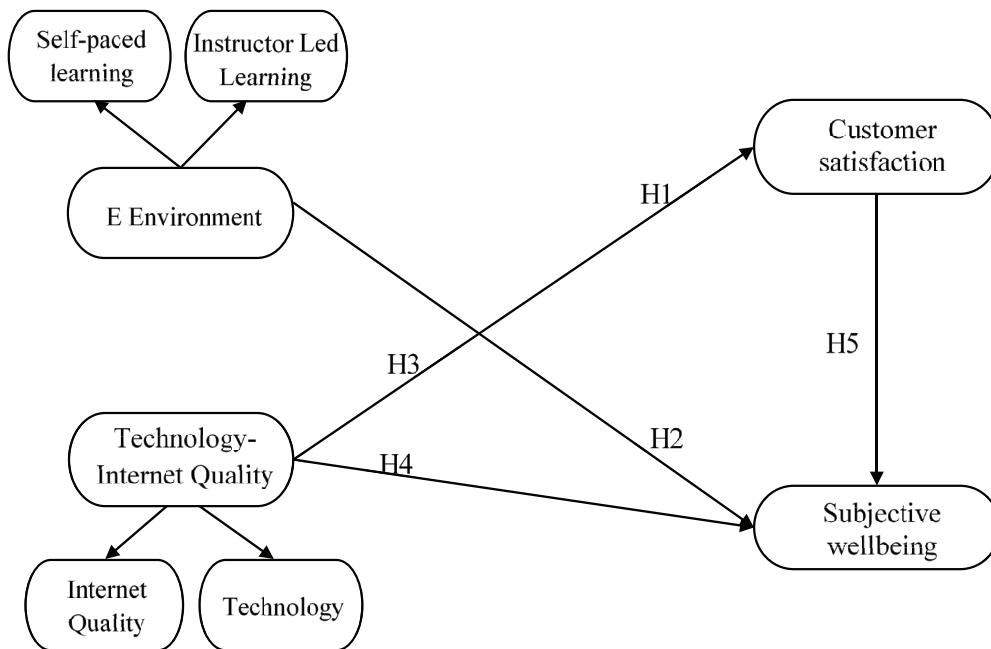


Figure 1: Conceptual Framework

3. Research Methodology

This study has resorted to a quantitative research approach for wider comprehension and generalizability of results. The full-scaled online survey was conducted among students of universities who were offering exclusively education on e-Learning mode of education. Convenience sampling strategy with the criteria that each participant should be enrolled in university providing e-learning education. Data is collected from the students of different universities offering e-learning such as such Virtual University of Pakistan VU, Virtual Campus of COMSAT (VCOMSAT) and Allama Iqbal Open University. The respondents were requested through email to respond to an online-administrated questionnaire voluntarily. This approach is helpful to collect the responses from genuinely interested respondents and avoid non-serious respondents. A total of 2000 questionnaire were distributed out of which only 1338 valid responses were included for data analysis, which represents a response rate of 66.9%.

The sample of 1338 students included 838 males and 500 females with 7% of respondents bearing age less than 20 years, the ages of 32 % respondents varied between 21-25, whereas the ages of 32 % varied between 26-30 years. 17% of the respondents aged between 30-35 years, whereas, 7 % aged between 35-40 years and 5 % were 40 and above. As far as distribution of the students between the three universities were concerned, 21 % of respondents were from AIOU, 65 % of the respondents were from VUP, and 15 % were from VCOMSAT. The distribution of students between home based and campus based, out of the total, 52% students pursued their e-learning education from campus-based learning mode, 33 % were home based and 15% had adopted other modes of education for pursuing e-learning education.

3.1 Measures

The questionnaire created online through Google doc was forwarded to the Universities. Responses were recorded online, hosted directly through researcher designated email. The questionnaire consisted of 26 items with four main research variables. E-environment is operationalized as self-paced learning and instructor led learning environment. Self-paced learning is measured by using 6 items scales adopted from (Choudhury & Pattnaik, 2020; Liaw, Huang, & Chen, 2007) Instructor led learning environment is measured on 3 items scale adopted from (Choudhury & Pattnaik, 2020; Liaw, Huang, & Chen, 2007). Technology-Internet Quality is operationalized as technology quality and internet quality. Technology quality is measured by using 4 item scale adopted from (Amoroso & Cheney, 1991; Wedlock & Trahan, 2019) and internet quality is measured by using 4 item scale adopted from (Amoroso & Cheney, 1991; Sun et al., 2008; Wedlock & Trahan, 2019). Customer that is students' satisfaction measurement sales is consisting of 4 items adopted form (Wang, Lew, & Lau, 2020; Wang, 2003). Subjective wellbeing measurement scale is consisting of 5 items adopted from (Diener et al., 1985; Margolis et al., 2019) . Five point Likert scale was used to record the responses (5=Strongly Agree to 1=Strongly Disagree).

4. Results

Data has been analyzed through SPSS-25 and AMOS-25. A series of analysis tools were applied to establish the validity and reliability of data and testing of proposed relation paths. Data was initially tested for missing values, outliers, and normality. All the items fell within the expected range of ± 3 Skewness and Kurtosis which indicates the normality of the data. Common method biases were eliminated by using Harman's single-factor (Chang, Van Witteloostuijn, & Eden, 2020; Gorrell et al., 2011). The results of factor analysis using maximum likelihood method showed that largest factor accounted for 37.048% (see Table 1) less than the threshold value of 50%, an indication of no common method biases (Habib &

Qayyum, 2017, 2018; Podsakoff et al., 2003). Variance Inflation Factor (VIF) was estimated to access the issue of Multicollinearity. Results showed that VIF ranged between 1.65 to 3.23 (see Table 2) which is less than the threshold value of 4 (Habib & Qayyum, 2018; O'Brien, 2007), indicating that there is no issue of multi-collinearity.

Table 1
Common Method Biases

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.632	37.048	37.048	4.457	17.143	17.143
2	2.779	10.690	47.737	6.300	24.230	41.373
3	1.563	6.013	53.750	1.542	5.930	47.303
4	.					
5	.					
6	.					
26	.158	.609	100.000			

Table 2
Variance Inflation Factor for Latent Variables

Model	Collinearity Statistics	
	Tolerance	VIF
1. SPLE	0.31	3.23
2. ILLE	0.45	2.25
3. TEQU	0.39	2.55
4. INQU	0.61	1.65

4.1 Measurement Model

Covariance based Structural Equation Modeling (SEM) was used to analyze the data. In first phase, measurement model is estimated to establish the validity and reliability of the measures. In second phase, structural model was assessed for the testing of structural path. Measurement model was consisted of 26 observed variables. E-Environment and T-I-Quality were estimated as second order latent variables. Results of factor loads, average variance extracted, composite reliability and Cronbach Alpha are presented in Table 3. The goodness of fit indices for measurement model are acceptable as CMIN /df = 2.36, $p \leq 0.00$, GFI= .914, AGFI= .896, NFI= .913, CFI= .948, RMSEA = 0.053.

Results of measurement model showed that factor load for each item exceeded the threshold value of .50, average variance extracted (AVE) for each construct is greater than .50, composite reliability (CR) and Cornbach alpha for each construct is greater than .70(Hair Jr. et al., 2017). The results are in favor of convergent validity (AVE>.50) and reliability (CR>.70, $\alpha > .70$) (Habib & Qayyum, 2018; O'Leary & Vokurka, 1998) For the assessment of discrimination validity the Fornell and Larcker (1981) criterion is used. The results are in support of the establishment of discriminant validity (see Table 4) as square root of AVE of each latent variable is higher than their respective correlation values (Hair Jr, Babin, et al., 2017).

Table 3
Confirmatory Factor Analysis

Construct	Abbreviation	Measurement Items	Estimate	CR	AVE	Alpha
Self-Paced Learning	SPLE	SPLE1	.885	0.618	0.906	0.894
		SPLE2	.861			
		SPLE3	.650			
		SPLE4	.825			
		SPLE5	.670			
Instructor Led Learning	ILLE	SPLE6	.796	0.634	0.839	0.827
		ILLE1	.780			
		ILLE2	.812			
Technology Quality	TEQU	ILLE3	.797	0.595	0.855	0.815
		TEQU1	.786			
		TEQU2	.768			
		TEQU3	.732			
Internet Quality	INQU	TEQU4	.799	0.500	0.799	0.734
		INQU1	.648			
		INQU2	.798			
		INQU3	.641			
Customer Satisfaction	CSAT	INQU4	.731	0.552	.0830	0.787
		CSAT1	.735			
		CSAT2	.655			
		CSAT3	.787			
Customer Subjective Well- Being	CSWB	CSAT4	.786	.577	.872	.874
		CSWB1	.777			
		CSWB2	.750			
		CSWB3	.718			
		CSWB4	.788			
		CSWB5	.762			

Note: CMIN /df = 2.36, $p \leq 0.00$, GFI = .914, AGFI = .896, NFI = .913, CFI = .948, RMSEA = 0.053

Table 4

Fornell-Larcker Discriminant Validity and Correlation Analysis

Constructs	Mean	SD	AVE	SQRT AVE	1	2	3	4	5	6
1.SPEL	3.76	.66	.618	0.79	0.79					
2.ILLE	3.82	.71	.634	0.80	.71**	0.80				
3.TEQU	3.87	.72	.595	0.77	.65**	.58**	0.77			
4.INQU	3.57	.73	.500	0.71	.53**	.42**	.58**	0.71		
5.CSAT	3.85	.73	.522	0.72	.63**	.66**	.61**	.45**	0.72	
6.CSWB	3.84	.62	.577	0.76	.67**	.66**	.58**	.45**	.69**	0.76

4.2 Hypotheses Testing

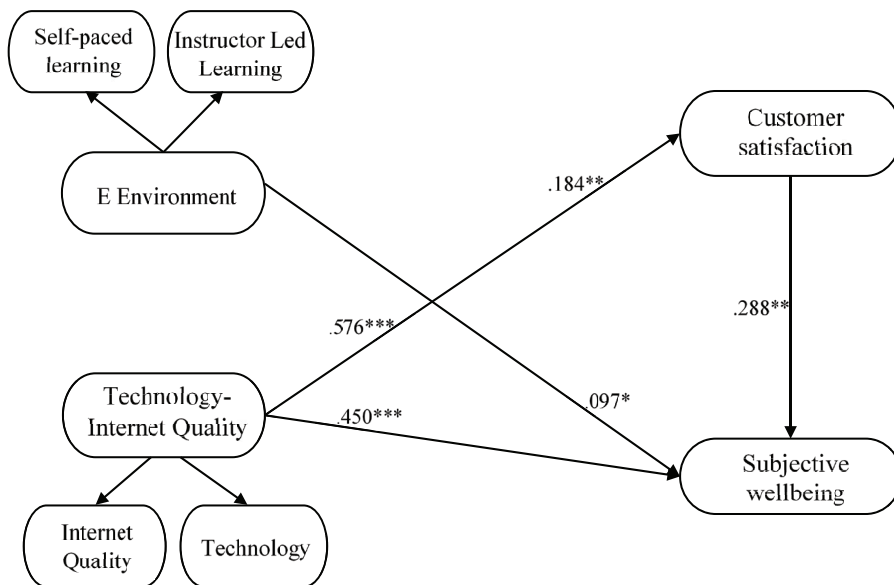
Satisfactory results for measurement model are an indication to proceed towards structural model for hypotheses testing. Structural path analysis is performed to test the proposed relational path. The results of hypotheses testing are presented in Table 5 and Figure 2. The results of path coefficients indicated that EENV has a significant impact on CSAT ($\beta=0.184, p<0.01$), supporting **H1**. The results of path coefficients indicated that EENV has a significant impact on CSWB ($\beta=0.097, p<0.05$), supporting **H2**. The results of path coefficients indicated that TIQ has a significant impact on CSAT ($\beta=0.576, p<0.001$), supporting **H3**. The results of path coefficients indicated that TIQ has a significant impact on CSWB ($\beta=0.450, p<0.001$), supporting **H4**. The results of path coefficients indicated that CSAT has a significant impact on CSWB ($\beta=0.288, p<0.01$), supporting **H5**.

Table 5

Hypotheses Result and Structural Relationship

Hypothesis	Structural Relationship	B	P	Hypotheses result
H1	EENV→CSAT	.184	< 0.01	Accepted
H2	EENV→CSWB	.097	< 0.05	Accepted
H3	TIQ→CSAT	.576	< 0.001	Accepted
H4	TIQ→CSWB	.450	< 0.001	Accepted
H5	CSAT→CSWB	.288	< 0.01	Accepted

Note: CMIN/df = 2.13, $p \leq 0.00$, GFI = .918, AGFI = .892, NFI = .919, CFI = .953, RMSEA = 0.050



Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Figure 2: Structural model

5. Conclusion

The basic purpose of the study was to evaluate the influence of environmental and technological factors in the development of customer (students') satisfaction (e-learner satisfaction), leading to SWB in an e-learning environment. The purpose set forth for the study has been achieved by empirically testing a comprehensive theoretical framework of e-learner's satisfaction and subjective wellbeing based on social cognitive theory. The peculiarity that makes this research unique is the study of e-learner satisfaction and subjective wellbeing towards e learning in the pandemic situation of COVID 19. E-Learning has achieved global currency in the student cohorts very rapidly. The widespread acceptance and enthusiastic response to e-Learning has meteoric boost to e-Learning industry both from education as well as commercial point of view with the expected revenue from e-Learning industry reaching \$ 325 billion by 2025. The extent of e-Learning penetration in the corporate world can be gauged from the fact that 77% of the US Companies had used Online Learning in 2017.

However, in the obtaining environment of COVID-19, it has become the only media through which education is being dispensed globally. The findings of the study are in sync with the proposition of S-O-R model and TAM. In line with the propositions of S-O-R model it was found that E-Environment significantly contributes in developing e learners'

satisfaction (Shah, 2016) and subjective wellbeing (Shah, 2016; Sheldon & Bettencourt, 2002), it supports **H1** and **H2**. The study findings suggest that E-environment offers a more flexible learning style as compared to traditional learning (Pham et al., 2019). E-learning with flexibility of time, space and connectivity equip students with the ability to control the pace and rhythm of their studies without attending classrooms physically (Bhuasiri et al., 2012). Well-designed e-learning system enhances the satisfaction and well-being of students through interactivity, self-directivity and just in time knowledge acquisition (Eom, 2019; Qiu, 2019). The results revealed a positive association between Technology-Internet quality, student satisfaction and subjective well-being. Thus it supports **H3** and **H4**.

Technology dimensions such as quality of technology and internet significantly influence the smooth dispensation of education through E-environment (Hogan, 2019; Shah & Attiq, 2016). A reliable and high quality of technology and intent allow students to continue their education at their own conveniences, thus resulted into favorable evaluations of e learning system that are student satisfaction and student well-being (Toufaily, Zalan, & Lee 2018). The study findings supported a positive association between customer satisfaction and subjective well-being, in support of **H5**. Consistent with TAM, it was found that technology factors have a significant impact on e learners' satisfaction (Revythi & Tselios, 2019) and subjective wellbeing (Shah, 2016). The study findings revealed that customer satisfaction develop a balance between positive and negative emotions which encapsulate life satisfaction and happiness (Chau et al., 2018). Thus increased satisfaction is associated with subjective well-being.

5.1 Theoretical Significance

The approach adopted in this study differ from conventional approach wherein the outcome of e-learning is conceptualized qualitatively as a result of technology or system feedback(s). Till now, limited no of studies have been carried out on theoretical examination and empirical testing of the antecedents and outcome of e-Learner's satisfaction. This study has endeavored to build and test social cognitive theory to explore the effects of technological, environmental, and psychological factors on the behavior formation of e-learning outcomes in customers' context, leading to their SWB with the focus on students undergoing education in universities in Pakistan which are offering e-learning as mode of education. With this in the backdrop, this study provide an empirically valid conceptual framework to fully comprehend the cognitive process of customers'/students' satisfaction in the context of e-learning in pandemic situation of COVID 19. Exploring the various knowledge domains including educational psychology, customer psychology, individual's psychology, and consumer cognitive behavior models this research opens new avenues of inquiry.

The results of the empirical study have shown all the hypotheses having good explanatory power, thereby elucidating that integration of technological, environmental, and psychological factors with a theoretical basis explain the e-learning phenomenon in greater details. Dilating on the significant role of motivational needs of students studying through e-learning education in influencing their workplace behavior, university management and especially the Higher Education Commission of Pakistan may prudently benefit from the findings of the study. They may resort to structuring the e-learning environment which should encourage effective learning behaviors and dissuade unproductive factors in the students who have resorted to e-learning. The findings of this study provide an edifice to understand the process satisfaction and well-being from undertaking e-learning.

5.2 *Practical Implications*

The current study endeavors to offer key practical implications, particularly, for policy makers, organizations (universities), and e-learners (customers). In the COVID-19 environment, the results of this study will help increase universities/ organizations understanding about the underlying psychological processes of customers' satisfaction and their well-being along with in-depth comprehension of e-learner's psychological factors.

The outcomes of this research would also offer an insight to the higher education institutes to manage, restructure, and recalibrate their resources and learning environment, re-evaluate their funds allocation and time management. Moreover, this study will also help HEIs to reskill their teachers to enhance students' interest in acquiring education through this innovative mode of education. The results of this expose would entice conventional HEIs to recalibrate themselves for this type of innovative mode of education for increased students' satisfaction and higher revenues generations. By integrating e-learning in their workplace culture, corporates may also escalate their learning curves, save revenue and reap the benefits for optimum productivity.

5.3 *Limitations and Future Recommendations*

Although this research offers interesting findings and practical implications, some limitations should be taken into consideration. Since this study relied on collecting data from students who were enrolled in universities offering e-Learning as an exclusive mode of education delivery, careful interpretation of the results would be required while generalizing the results. There is a need to determine the impact of e-Learning on the students from different cohorts, especially students who got their first experience on attaining education through e-Learning from conventional universities.

The application of the results of this study on younger adults or school children might vary when viewed in the backdrop of the fact that the data for this study was collected from adults studying at university level. This research has incorporated various dimensions of technology dimension and learning environment independent variables, inclusion of other dimensions like usability, interactivity and simplicity may require further exploration. The conflict in corporate training settings between the developments of job skills in e-learning environment vis-à-vis propensity towards personal development in formal setting needs further exploration. Incisiveness of demographic factors like age and profession would be more to comprehend whether such difference could impact the satisfaction and subjective well-being of e-learners or not.

E-Learning has come to stay and stay forever, hence HEIs and other learning institutions may brace themselves for this innovative and disruptive mode of education. The phenomenon has gained wider acceptability in the obtaining environment in which educational institutions have had to remain shut for indefinite period of time. This mode of delivery of education was thus thrust upon the student's the world over. Adoption of wise policies which would lead to students' satisfaction and their well-being would result into reaping of optimum benefits from e-Learning mode of education.

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Saving Behavior in Emerging Country: The Role of Financial Knowledge, Peer Influence and Parent Socialization

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Abstract

The household debt in Malaysia was recorded at 83 per cent of gross domestic product in 2018. This contributed to insufficient amount of saving by household who are mostly not prepared for retirement. Meanwhile, youths in emerging countries however are reported as the main group trapped into the financial problem. The tendency of saving among individual is different from one another due to differences in financial knowledge, peers influence, parent's socialization and self-control based on Theory of Planned Behavior. A survey was conducted on 133 students in emerging country, Malaysia, to examine the factors which affected their savings behavior. Structured questionnaires were distributed using convenient sampling technique. Results revealed that financial knowledge, peer influence and parent socialization have a significant effect on students' saving behavior. Findings serve to inform policy makers who are formulating strategies to enhance students' financial knowledge and to maximize the role of parents and peers in order to encourage higher saving behavior in emerging countries.

Keywords: Saving behavior, Financial knowledge, Peer influence, Parents socialization.

JEL Classification: Z000

1. Introduction

Education loan has become the major source of financing for the majority of students in university. Students need to have personal financial management skills to ensure that they use their financial resources effectively and efficiently. According to Goldsmith and

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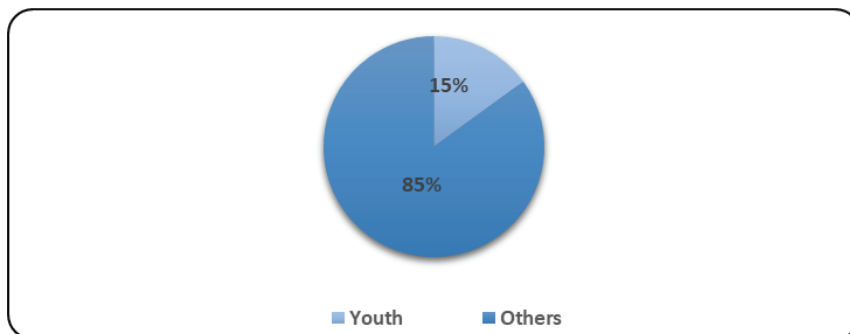
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Goldsmith (2006), Kidwell and Turrisi (2004), college students have easy access to financial services such as credit card and education loan, making them at risk for financial problem when they have little financial management knowledge and experiences required to manage money.

National Higher Education Fund Corporation (PTPTN) has become the most important source of funds for students in Malaysia. The existence of PTPTN has enabled more students to pursue education to a higher level by providing support for their living cost. However, the lack of financial knowledge may cause financial problem to occur among university students Sabri et al. (2008). According to Holub (2002) and Norvilitis et al. (2006), lack of financial management skills has led to higher debt, higher credit card usage, and low financial satisfaction among university students.

Young generations are not aware of the uncertainty that might happen in the future and have lack of knowledge on saving behavior (Benartzi, 2012). Nowadays, students are more demanding toward luxury goods and do not see the effect of spend thrift lifestyle.



Source: The Credit Counselling and Debt Management Agency (AKPK, 2016)

Figure 1: Individual Seek for Debt Assistance from AKPK in 2016

Figure 1 showed that, most of the young adults failed to manage their financial wisely. 15 per cent of the 160,000 individuals who seek financial counselling assistance through AKPK debt management program are youths aged between 24 to 25 years (AKPK News, 2016). This proves that youth are likely to spend more than their income and have bad financial management.

Malaysian government have implemented many efforts to encourage people, especially students, to save but still the rate of saving is said to be at a low level. Bank Negara Malaysia (BNM) reported that household ability to save for the future is worrying since

statistics had shown that half of Malaysian household spent their income on servicing debt. Moreover, Malaysian youth are the main group that was trapped in financial problem. The existence of online shopping websites and applications that support the usage of credit and debit card has led to the increasing in debt level.

Financial problem particularly among young adults in emerging countries is mostly caused by overspending on unnecessary items or due to impulse buying, lack of financial knowledge, and maintaining luxury lifestyle that prompted them to satisfy their wants. Moreover, the advancement of the technology such as on-line purchasing websites where customers are able to make an order on-line and enjoy rewards from their purchase has offered new shopping experience at their convenience which will increase debt level since most of the transactions were performed using credit cards Jamal et al. (2015). Higher spending habit among youths makes them an easy target by banks to promote their credit-based banking facilities.

Compared to old generation, today's generation is more materialistic, in which they view money to be their top priority in life. Individuals who view money as something to fulfill their short-term goal without considering it long-term might not be able to have good financial situations in the future, which most of the people are facing nowadays. This may lead to failure to reap the profits of early saving or bankruptcy.

According to Gathergood (2012), having poor financial literacy will also lead to higher burden of financial problem that will result to non-payment of consumer credit and this in turn will urge individuals to plan for their financial management. Salikin et al. (2012) explains about the problem of doing savings in university life which really depends on unpredictable cost and family support to satisfy desire and economic needs. Buccioli and Veronesi (2014) and Karunaanithy, Karunanithy, and Santhirasekaram (2017) revealed that parental influence is more effective in shaping their child's saving behavior especially during young age. Students saving behavior is related to socialization agents as friends and peer influence will assist them for better planning and practices in terms of their financial related issue (Sundarasan et al.,2016).

Several authors including Falahati and Paim (2011), Salikin et al. (2012), Fazli Sabri, Cook, and Gudmunson (2012), Albeerdy and Gharleghi (2015), Sundarasan et al. (2016), and Mohamed (2017), have explored financial literacy among youth, though none of these studies focused specifically on savings behavior. Shambare and Rugimbana (2012) found that the students in emerging countries generally show a moderate level of awareness in terms of financial issues, despite having a higher level of financial knowledge, thereby revealing the need for more focused research on this topic.

Even though Jamal et al. (2015) indicated that family, peers and financial literacy have an effect on students' saving behavior in Kota Kinabalu, however, this study has added other factor, which is self-control to examine the saving behavior. To this end, we have collected data from university students in Malaysia to examine the role of important determinants as financial knowledge, peers influence, parent's socialization, and self-control towards their saving behavior. This is important for policy makers to be aware of what factors that will encourage university students to save the money, and likewise the factors that will deter them from doing so.

2. Literature Review

2.1 *Theoretical Framework*

Ajzen (1991) proposed a Theory of Planned Behavior (TPB), which is an extension of the Theory of Reasoned Action. This theory was developed by Fishbein and Ajzen (1977) and applied in this research. The purpose of the theory is to know why people perform an action. Basically, people form an intention for certain actions and it then led them to perform certain behavior, Ajzen (1991). In this research, attitude toward behavior, perceived behavioral control and subjective norm are used to explain how financial knowledge affect students' saving behavior. Students with good financial knowledge can manage their finances well. Thus, this behavioral belief will drive students to form a positive attitude towards saving behavior.

Furthermore, perceived behavioral control can be used to explain self-control as students with high level of self-control will perceive saving as an effortless endeavor because they have the ability to regulate their desires, self-discipline and delay gratification (Shively, 2001). According to Ajzen and Fishbein (1970), the factor of peers and parents can be explained by subjective norms so the social stress caused by peers, parents and financial situation can influence students' intention to save. Therefore, all the determinants used in this study such as financial knowledge, peers influence, parent's socialization and self-control can be well explained by the concepts of TPB in predicting student saving behavior.

2.2 *Saving Behavior in Emerging Countries*

Saving is a process of not spending money for the current period in order to use it in the future. According to Denton, Finnie, and Spencer (2011), saving can be define as the excess of income over all of the expenditures. The 2016 HSBC annual report stated that 70 per cent of Malaysian are worried about their finance, while 40 per cent is expected to have poor standard of living during their retirement.

In terms of financial knowledge, a study done by Sam, Geetha, and Mohidin (2012). Found that undergraduate student has no saving behavior due to not applying the skills and knowledge related to financial management in their daily life. Chen and Volpe (2002) reported that female students are less likely to learn about personal finance than male students as they are more interested in other courses than finance. This finding is supported by Falahati and Paim (2011) in the case of Malaysia. Study conducted by Hilgerte, Hogarth, and Beverly (2003) reported that the financial literacy positively affected saving and investment practices. He also revealed that the main reasons for financial problem and low level of saving are poor financial knowledge and lack of information. Financial literacy plays an important role in developing life attitude and individual's financial management attitude. Shim et al. (2010) and Sundarasan et al. (2016) found that financial literacy had a positive impact on money management. Thus, financial literacy plays a pivotal role in achieving successful saving behavior. Most of the literature concluded that majority of the students with lack of financial knowledge tend to give negative idea on financial issue.

In other case, parent's socialization is seen to be a vital factor in motivating a saving behavior in students. This is proven by a study done by Caruana and Vassallo (2003) who found that parent's socialization is more effective than financial knowledge as children tend to watch and copy their parents' behavior. While according to research by Bucciol and Veronessi (2014), parent's socialization in teaching finance has resulted in the increase of individual willingness to save by 16 per cent. This is supported by Moore and Asay (2013) who stated that individual behavior or actions influence the behavior of the whole family. Similar to Batty, Collins, and Odders (2015), parent's socialization in teaching about finance influenced children's financial behavior before they are in formal education. In the case of university students in Sabah, Jamal et al. (2015) explored that strong family ties and parental influences positively influenced child's savings behavior. The importance of the role of parents is described by Sundarasan et al. (2016), and Mohamed (2017), in which the results reported a strong positive relationship between them.

For peer influence, Ogonowski et al. (2014) found peer influence to be the most important influence in forming good and bad attitude in terms of social distance and physical of Generation Y. While, peer force is the main factor in influencing Generation Y in making decisions (Alwi, Hashim, & Ali, 2015). According to Montandon (2014), Generation Y are easily persuaded by their peers during decision making. Abdul Jamal and Amer Azan (2015) also agreed that individuals' financial behavior could be motivated by peer pressure other than parenting factor. In addition, based on the study done by Jamal et al. (2015) they found that peer influence could also influence a person's financial behavior and can affect student's ability to save. According to Noor Zaihan (2016), exchanging ideas about financial management matters among peers and their spending inclination during their social time could influence their saving behavior. However, a study done by Mohamed (2017) reported an

insignificant relationship between peer influence and financial behavior of young employees. decisions (Alwi, Hashim & Ali, 2015). According to Montandon (2014), Generation Y are easily persuaded by their peers during decision making. Abdul Jamal and Amer Azan (2015) also agreed that individuals' financial behavior could be motivated by peer pressure other than parenting factor. In addition, based on the study done by Jamal et al. (2015) they found that peer influence could also influence a person's financial behavior and can affect student's ability to save. According to Noor Zaihan (2016), exchanging ideas about financial management matters among peers and their spending inclination during their social time could influence their saving behavior. However, a study done by Mohamed (2017) reported an insignificant relationship between peer influence and financial behavior of young employees.

In addition, self-control plays an important element which impact individual's saving behavior. Self-control is linked with individual's attitude since it is individual's perception about performing a specific behavior (Ajzen, 1991). According to Thaler (1994), and Rabinovic and Webley (2007), individual must exercise self-control in managing their wants and expenditures in order to save more money. A study by Choi, Laibson, and Madrian (2011), found that individuals who lack self-control tend to save enough money to retire. However, Achziger et al. (2015) indicated that individual with low self-control in financial management would frequently spend their money on shopping rather than saving them which lead to higher personal debt. According to Strömbäck et al. (2017) higher self-control predicts sound financial behavior and financial well-being and thus enable them to manage well for the future. However, since attitude is not constant all the time, there are also other factors, such as social persuasion (Prislin & Wood, 2005; Webley & Nyhus, 2006), the motives or values that an individual holds (Wyer & Albarracin, 2005) and optimism and deliberative thinking that seem to affect saving behavior (Strömbäck et al., 2017).

3. Research Methodology

The primary participants comprised of students in Universiti Teknologi MARA Segamat Campus, in Johor, Malaysia, which were randomly selected for the study to measure the saving behavior among students aged between 21 and 24 years. Data collection of this study was through an online questionnaire which was distributed randomly to the students and the responses were collected via google drive. A total of 133 useable respondents completed the questionnaires as requested with 45.1 per cent of the respondents are male, whilst 54.9 per cent are female, which aligns in Malaysian context where the female proportion exceeded the male students. The respondents' profile is summarized in Table 1. The questionnaire consisted of 2 sections; the first section collected the demographic data and the second section elicited information about savings behaviors of the students.

This study adopts a quantitative approach to measure the factor of financial knowledge, peers influence, parent's socialization and self-control on students' saving behavior.

The questionnaire for this study contained 19 questions and the responses were measured using a five-point Likert scale anchored by ‘strongly disagree’ (1) to ‘strongly agree’ (5). The questionnaire were collected in April 2019 and the data was coded and analyzed using SmartPLS. Data were analyzed using the following steps; first, model measurements were examined using validation factor analysis and second structural model measurements were evaluated by examining standard roots coefficients and t-statistics ($t > 1.645$).

3.1 Findings

The results presented in Table 1 indicate the demographic data for the 133 respondents of the study. The data includes variables such as gender, age, education level, engage part time job, monthly expenses, monthly allowance and source of finance.

Table 1
Sample Characteristics

Characteristics	Frequency (N=133)	Percentage (100%)
Gender		
Male	60	45.1
Female	73	54.9
Age		
21-22	67	50.4
23-24	66	49.6
Education level		
Diploma	2	1.5
Degree	131	98.5
Engage part time job		
Yes	8	6.0
No	125	94.0
Monthly expenses		
<RM200	3	2.3
RM201-RM350	14	10.5
RM351-RM500	99	74.4
RM501 and above	17	12.8
Monthly allowance		
<RM200	7	5.3
RM201-RM400	7	5.3
RM401-RM500	99	74.4
RM501 and above	20	15.0
Major source of finance		
Allowance from parents	30	22.6
PTPTN	92	69.2
Scholarship	6	4.5
Salary from part time job	5	3.8
Is the major source of finance enough?		
Yes	39	29.3
No	94	70.7

The majority of respondents were young and studying in degree level (98.5 per cent) and have not engaged in any part time job (94.0 per cent). From the survey, these students depends on PTPTN and parental support for their financial source which indicated 69.2 per cent and 22.6 per cent respectively. Moreover, it shows that their monthly allowance is ranged between RM401-RM500 and they spend around RM351-RM500. A study revealing that most of the students (70.7 per cent) are stressed over their finance or being financially insufficient.

Structural Equation Modeling (SEM) analysis using SmartPLS 3 was used to estimate the measurement and structural model for quality and fit (MK & Ramayah, 2019). As suggested by Fornell and Larcker (1981), convergent validity was determined by calculating item reliability, internal consistency, and average variance extracted (AVE). Item reliability assesses the loadings for each individual item. Table 2 presents the detailed item loadings. The loadings indicate the correlation of the items with their respective constructs. The results showed that all item greater than 0.7 which consider as acceptable. This table also showed that Average Variance Extracted (AVE) values are above 0.5 except for parent's socialization. AVE is a strict measure of convergent validity. AVE is a more conservative measure than construct reliability (CR). On the basis of CR alone, the researcher may conclude that the convergent validity of the construct is adequate, even though more than 50 per cent of the variance is due to error (Pahlevan Sharif & Sharif Nia, 2018). Refer to the AVE, the largest value is 0.695 for self-control whilst the lowest is 0.481 for parent's socialization.

Table 2
Convergent Validity

Constructs	Items	Loading	CR	AVE
Financial Knowledge	FK2	0.653	0.785	0.553
	FK3	0.690		
	FK4	0.870		
Peers Influence	PEE2	0.666	0.799	0.574
	PEE3	0.698		
	PEE4	0.891		
Parent's Socialization	PS1	0.732	0.730	0.481
	PS2	0.795		
	PS3	0.526		
Savings Behavior	SAV1	0.781	0.883	0.654
	SAV2	0.868		
	SAV3	0.746		
	SAV4	0.834		
Self-Control	SC1	0.921	0.900	0.695
	SC2	0.865		
	SC3	0.663		
	SC4	0.864		

Note: FK1 and PEE1 were deleted due to low loadings.

Next, we proceeded to test the discriminant validity. The first criterion of discriminant validity is assessed by calculating the square root of average variance extracted (AVE). This value is then compared with inter construct correlation. To meet the discriminant validity criteria, the square roots of the AVE were calculated and represented in the main diagonal of Table 3. The off-diagonal elements represent the correlations among the latent variables. Barclay, Higgins, and Thompson (1995) specified that discriminant validity is achieved when the square root of the AVE of a construct is larger than its correlation with other constructs. Table 3 confirms that the discriminant validity was achieved.

The cross-loading matrix explained that all items are loaded higher on the construct they were measuring than on any other construct in the model. Therefore, the two criterion of discriminant validity was met. The implication is that all the reflective constructs in the measurement model are different from each other.

Table 3
Discriminant Validity

Constructs	1	2	3	4	5
1. Financial Knowledge	0.744				
2. Peers Influence	0.350	0.758			
3. Parent's Socialization	0.384	0.366	0.694		
4. Savings Behavior	0.532	0.433	0.501	0.809	
5. Self-Control	-0.188	0.043	-0.172	-0.242	0.834

Note: Values on the diagonal (bolded) are square root of the AVE while the off-diagonals are correlations.

Table 4 indicated the summarized of hypothesis testing for the main model. The standardized path coefficient indicates whether the direction of the relationship is either positive or negative whilst the t-value assesses whether this relationship is significant or not. H1, H2, H3 and H4 examined the influence of financial knowledge, peers influence, parent's socialization and self-control on savings behavior, respectively.

Table 4
Hypothesis Testing

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	Decision
<i>H₁</i>	Financial Knowledge -> Savings Behavior	0.321	0.077	4.184	Supported
<i>H₂</i>	Peers Influence -> Savings Behavior	0.228	0.062	3.667	Supported
<i>H₃</i>	Parent's Socialization -> Savings Behavior	0.269	0.09	2.990	Supported
<i>H₄</i>	Self-Control -> Savings Behavior	-0.145	0.102	1.424	Not Supported

Note: *p < 0.05

From the hypothesis testing, it showed that all three variables for standard path coefficients were positively related to savings behaviour while self-control was not significant. More specifically, financial knowledge ($\beta = 0.321$, $t = 4.184$), peers influence ($\beta = 0.228$, $t = 3.667$), parent's socialization ($\beta = 0.269$, $t = 2.990$), and self-control ($\beta = 0.145$, $t = 1.424$). The result was accepted at $t > 1.645$. In conclusion, three of the hypotheses (H1, H2, H3) were statistically significant. All the variables explained an R^2 of 0.44 which shows that they explained 44 per cent of the variation in savings behavior. The most influential predictor of saving behavior was financial knowledge followed by parent's socialization and peers influence which shows that the students in emerging country are very much concerned with financial knowledge. Figure 2 shows the path diagram and results.

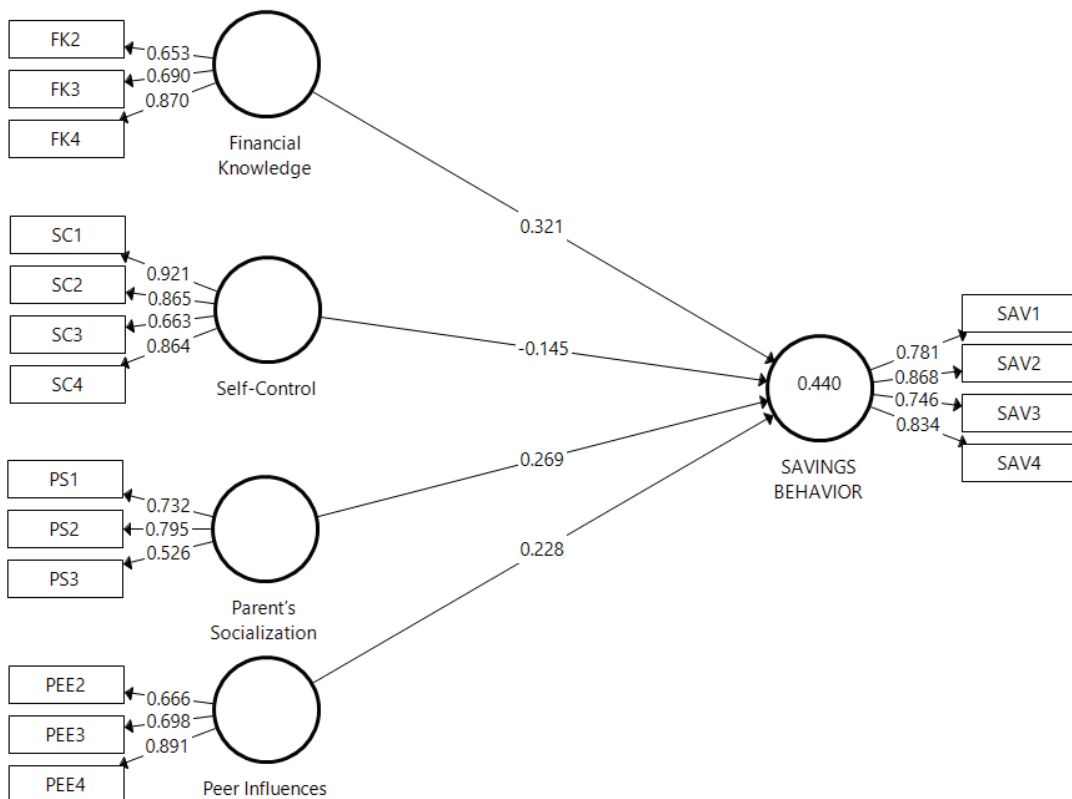


Figure 2: Path Diagram

4. Conclusion

This study examined the linkages among financial knowledge, peer influences, parent's socialization and self-control towards savings behavior among university students in emerging country. The respondents comprise of students of Universiti Teknologi MARA Segamat Campus. Financial knowledge, peer influences and parent's socialization were found to play an important role in explaining saving behavior in university students of an emerging country. The role of financial knowledge which has been discussed widely appears to be an important factor for encouraging saving behavior. This implies that students with good financial literacy know how to spend, save and invest money wisely. This finding corroborates with the findings of Hilgerte, Hogarth, and Beverly (2003), Shim et al. (2010), and Sundarasan et al. (2016) who stated that financial literacy positively affected investment practices and saving.

From the finding, the implication of parent socialization seems even more apparent, given the important role for their children's financial issues. Children who had been taught to save money since young ages usually will develop and build on that behavior until older. Batty, Collins and Odders (2015) revealed that the role of parent in socializing with financial skills before enrolment to formal education will affect their child's financial behavior. Peer influence is also one the most influential factors to affect saving behavior among students. This is supported by study done by Noor Zaihan (2016) which stated that exchanging ideas about financial management matters among the peers. Not only that, she also found out that the expenditure made by group of students during their social time could also influence their behavior. Some students spend most of their time with friends who would influence their intention and behavior. Peer influence is significant in shaping their friends' saving behavior and motivating them to only spend on necessity and needs in order to prevent overspending. Not only that, some students also practice several types of saving and investment with their friends and encourage one another for future planning.

In contrast, self-control does not affect the behavior of saving. This is due to the result proven that self-control has insignificant effect towards the saving behavior. Nowadays, most of students are likely to spend their money on entertainment compared to saving it. Students cannot control themselves from keeping up-to-date on the latest trends and technologies that cost a lot of money. Thus, most students cannot control their desire and this led to overspending of their money. This result is different from that of Hayhoe et al. (2000), Miotto and Parente (2015), and (Strömbäck et al., 2017) who argue that higher financial self-efficacy associated with lower debt and higher savings. Not only that, students are not having any financial problem, are not aware of the importance of saving for future and precautionary use. Additionally, students that do not suffer from this problem probably think that their money is enough to cover their current expenditures for the entire semester thus they do not save money.

The findings suggest that the practice of saving money need to be taught and encouraged even when children are still in their primary and secondary education level so that they will have sufficient financial knowledge to set up long-term financial goal when they reach adulthood. This would also benefit those who receives allowance from their learning institution or other parties since it would help them to save up for future and would motivate them to manage their money. This empirical evidence may throw some light in which the authorities in emerging country could use in order to increase financial literacy among students. Beside classes, there are many programs or activities that can be held to help students gain financial knowledge. In other words, participating in innovative events in business could provide additional information and guidance to enhance the understanding of personal investment and financial management.

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Robert Nozick's Libertarian Framework of Distributive/Economic Justice: A Critical Assessment of Its Prospects for Providing Global Distributive Justice

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Abstract

This paper addresses a primary disjuncture between the capitalist business and capitalist state. Whereas capitalist business has gone global, the capitalist state remains national. This paper contends that this disjuncture accounts for the absence of provision of global capitalist distributive/economic justice. Within the framework of Robert Nozick's entitlement theory of justice, it investigates whether a minimal state can be spontaneously evolved from anarchy providing distributive/economic justice within national borders, and whether a minimal state can ultimately lead to the emergence of a global minimal state providing global distributive/economic justice. It is argued in this paper that a framework for the provision of global distributive/economic justice cannot be developed on the basis of Nozick's entitlement theory of justice primarily because of problems of Nozickian rectification of past injustices, and disjuncture between national minimal state and an imagined global minimal state.

Keywords: Minimal state, Distributive justice, Justice in transfer, Justice in acquisition, Rectification of injustice, Global distributive justice.

JEL Classification: B310

1. Introduction

This paper addresses a primary disjuncture between the capitalist business and capitalist state. Whereas capitalist business has gone global capitalist state remains national. One major outcome of this disjuncture is that whereas capitalist distributive/economic justice is provided by the nation-state at the national level the provision of global distributive/economic justice seems to be no one's responsibility. Capitalist markets, whether operating within or across national borders, do not provide distributive/economic justice on their own. The neoclassical standard economics do not offer a program of distributive justice but rather merely provides theory of factor prices. For example, unlike Nozick's libertarian approach

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standard economics does not address the problems of legitimacy of initial acquisition and rectification of past injustices. However, Nozick's view of rectification of injustices seems to be too abstract.

This paper explores Nozick's theory of justice at the national level and critically scrutinizes its prospects for the provision of global distributive/economic justice. It argues that a framework for the provision of global distributive/economic justice cannot be developed on the basis of Nozick's theory of justice primarily because Nozick's entitlement theory of justice necessarily demands the existence of a minimal national/territorial state for the provision of justice within national/territorial borders but it does not allow the establishment of a world minimal state. Nozick offers a market rationalization for the emergence of the minimal state. The primarily economic rationale that Nozick provides for the national minimal state does not work for the global minimal state.

1.1 Nozick's Conception of Justice at the National Level

Nozick's key text *Anarchy, State and Utopia* has been celebrated as "the central text for all contemporary academic discussions of libertarianism" (Fried, 2005). Nozick's approach to the problem of justice is called justice as entitlement. Because of Nozick's essential renouncement of redistribution, he also calls it justice in holdings. Nozick understands his own theory as a historical backward-looking theory of justice. End-state theories or principles are "all those principles that (held that) the justice of a situation is independent of how it came about: They are un-historical" (Hunt, 2015). Nozick divides historical theories of justice in two broad categories: patterned theories of justice and un-patterned theories of justice, and contends that his own theory is an un-patterned one, whereas, Rawls's, for example, is a patterned theory. Past circumstances or actions of people are of great significance for historical theories of justice. Overall, patterned theories are those that are expressed as "to each according to his—" and fill in the blank with some term such as "needs", "merits", "deserts", "marginal product", "virtue", "IQ", or whatever (Nozick, 1999).

Nozick is of the view that production and distribution are not independent spheres. He argues that patterns violate liberty whereas liberty upsets patterns. In upsetting liberty, patterns promote equality whereas in upsetting patterns, liberty promotes inequality. In resolving the conflict between liberty and equality Nozick rejects equality as a value. However, though Nozick disapproves both of equality of utility and that of Rawlsian primary goods, he "does demand equality of libertarian rights" in the sense of equal individual liberty (Sen, 2009).

1.2 *Assessing Nozick's Tripartite Conception of Libertarian Distributive/Economic Justice at the National Level*

Nozick proposes a tripartite conception of justice as entitlement: justice in acquisition (initial acquisition) (henceforth JIA), justice in transfer (henceforth JIT), and the rectification of injustice. It is JIT that Nozick seems to have attached greatest importance to and has analyzed relatively in greater detail. JIA deals with the issues and processes of “how unheld things may come to be held” (Nozick, 1999). Previously unclaimed/unowned land and intellectual property rights are among its conventional examples. Whereas JIA is concerned with appropriation of unowned property, JIT deals with the procedures for legitimate possession of a property that is already owned. The essence of Nozick's justice/legitimacy in transfer is voluntariness (Wolff, 1996). Thus, “a transfer from one person to another is thoroughly just if thoroughly voluntary” (Schmidt, 2011). Nozick's view of justice approves of market transactions, gifts, charity, and barter whereas rejects theft, extortion, swindle, and redistributive taxation (Davis, 1982). Nozick, because of his rigorous accentuation of individual liberty, approves of the so-called ‘victimless crimes’ such as prostitution, drug dealing and unconventional sexual activities (Ryan, 2007). Nozick's theory of justice with a minimal state implies that government is not responsible to provide public education, health care, public transport, and public parks (Kymlicka, 2002). Nozick approves of philanthropy because it is consensual. Whereas JIA is related to the procedure and conditions of just appropriation, JIT is related to the transference of property already justly appropriated. Thus, taxation, to Nozick, is illegitimate unless it is to fund defense, policing and the administration of justice (Wolff, 1996). Nozick offers an inductive definition of justice (given below), which holds true in a world presumed to be wholly just (Nozick, 1999).

1. An acquirer is entitled to a holding if s/he has acquired it in accordance with the principle of justice in acquisition.
2. An acquirer is entitled to a holding (i) if s/he acquires it in accordance with the principle of justice in transfer (ii) acquires it from someone else entitled to the holding.
3. No one is entitled to a holding except by (repeated) applications of one and two.

Nozick thus specifies that just holdings are those that are in accordance with principle of JIA and principle of JIT (Nozick, 1999). The principle of JIA implies some principles of justice that explain how a person or group may justly come to own previously unowned property (for example, farming an unowned tract of land makes the farmer entitled to it); the principle of JIT implies some principle or set of principles that explains how a person or a group may come to own property that was previously owned by others (for example, if A buys B's computer, then A justly acquires the computer, and B justly acquires some money); the principle of justice in rectification (henceforth JIR) implies some principle or set of principles that explains what to do when people violate principles one and two (for example, if A

purchases a stolen car, then even if A did not know the car was stolen, A should return the car to its rightful owner) (Brennan, 2012).

Injustice in acquisition or/and injustice in transfer engenders the need for JIR whose purpose is mainly to compensate for past injustices. JIR is concerned with the cases of wrongful acquisition or transfer. Theft, fraud, enslavement, or seizing people's product and violating their freedom of choice, or preventing competition are different ways of violating JIA and JIT (Nozick, 1999). Nozick contends that principles such as Rawls's difference principle shapes patterns that cannot come into existence without non-voluntary transactions (such as redistributive taxation), and they can only be sustained by the functioning of intermittent non-voluntary transactions. Nozick argues that wealth is not like manna falling from heaven. Those who even talk of distributing wealth neglect entitlements, and treat wealth as manna (Nozick, 1999). It is Nozick's contention that distribution of wealth by government is similar to provision of spouses in a society rather than letting people freely choose their mates (Nozick, 1999). This implies that some people might have better spouses than others but that is the outcome of a voluntary choice, and, therefore, the talk of redistribution is illegitimate.

With the help of the Wilt Chamberlain example, Nozick attempts to show that liberty in the sense of voluntary transactions upsets patterns. There are many like Wilt Chamberlain in the society/utopia that Nozick conceives of. Wilt Chamberlain is a popular basketball champion who attracts a great number of people as his audience willing to pay to watch him play. Nozick invites us to imagine any non-entitlement view of just distribution for example, socialist distribution, or distribution in accordance with Rawls's difference principle. Through Chamberlain's example, Nozick intends to demonstrate that our imagined non-entitlement view of justice cannot be sustained without violating individual liberty. Nozick uses the notation D1 for our imagined distribution. Nozick assumes a patterned distribution D1, in which, "perhaps everyone has an equal share, perhaps shares vary in accordance with some dimension you treasure" (Nozick, 1999). D1 is a distribution pattern that has been established, let's say, through state intervention, before the commencement of the basketball season.

The basketball season starts and fans of Chamberlain rush to watch his sport. In order to update Nozick's example, Sandel (2009) imagines the iconic basketball champion of recent times, Michael Jordan, rather than Wilt Chamberlain. Jordan was paid \$31 million in his last year with the Chicago Bulls, which is more per game than Chamberlain made in a season (Sandel, 2009). By the end of the basketball season Jordan has more money than he had before the beginning of the season while the others have less. Nozick calls this new distribution (after the basketball season is over) D2 and raises the question whether this new distribution is just or unjust. Nozick contends that because viewers voluntarily chose to give money to the basketball star to watch him play, it would be illegitimate to redistribute that

money without the consent of the player. It is Nozick's contention that any outcome is just if it emerges through just steps from a just situation (Nozick, 1999). Hence, D2, according to Nozick is just. Now D1 cannot be established by voluntary transactions. Thus, Nozick's entitlement theory summarily states: "from each as they choose, to each as they are chosen" (Nozick, 1999).

However, it may be noted that the Wilt Chamberlain example, though it illustrates Nozickian injustice in terms of violation of consent to restore D1, assumes D1 (patterned distribution) as just distribution. Nozick's theory of JIT and the theory of JIA are interrelated in the sense that if the original appropriation is illegitimate then transfer becomes unjust or at least questionable. In other words, the right to transfer is embedded in the right to own. Nozick's theory of JIA deals with the problem of original appropriation.

Nozick's theory of JIA and his view of rights draws on the ideas of John Locke and Immanuel Kant. He connects Locke's theory of property¹ with Kant's formula of humanity² and draws the conclusion that self-ownership leads to ownership of the outside world, and respect for rights. Nozick holds that the rights (that he also calls 'side constraints') conceives of individuals in the Kantian sense as ends-in-themselves and not merely as means, that is, individuals cannot be used without their informed consent (Nozick, 1999). Thus, I own the fruits of my labor because of self-ownership and because I am an end in myself and not a means, no one has a right to appropriate the fruits of my labor without my consent. Nozick, therefore asserts that "taxation of earnings from labor is on a par with forced labor" (Nozick, 1999). The only legitimate taxation, to Nozick, is that that fulfills the purpose of protecting the background institutions required for the working of the system of free exchange; these institutions include the police, defense, and justice system for enforcement of contracts (Kymlicka, 2002). Nozick approves taxation, as mentioned earlier, only to fund defense, the police, and the administration of justice (Wolff, 1996). Thus, Nozick rejects positive or welfare rights.

"The distinction between negative and positive conception of rights, and a (general) willingness to recognize only the former as just, lies at the heart of contemporary libertarian philosophy" (Friedman, 2015). The starving person, to Nozick, for example, has no subsistence rights. Nozick argues that "untalented people would have starved any way had the land

¹According to Locke, life, liberty and estate are three forms of property which no one has a right, including the government, to violate because the main purpose of shifting from the state of nature to the establishment of a state is the protection of property (Locke, 1980). Moreover, according to Locke, the property, intrinsic to every person is the natural property, is derivative—derived from "that original, natural, and underived property" (Goldwin, 1987).

²Kant's formula of humanity demands to treat every person including oneself not merely as a means but also as an end (Kant, 1993)

remained unowned” (Kymlicka, 2002). Amartya Sen remarks that people can die at a massive scale because of grave famines even without violating anyone’s libertarian rights (Sen, 1983). Nozick, however, emphasizes one condition for the existence of absolute property rights, namely, “enough and as good is left in common for others,” a proviso that he takes from Locke and modifies it. The Lockean proviso seeks to promote equality by striving to prevent the situation of others from being worsened (Nozick, 1999). In other words, a legitimate acquisition is one that “does not worsen anyone’s situation” (Kymlicka, 2002). However, it has been argued that the Lockean proviso is not practicable in today’s world. The Lockean proviso cannot be met in the contemporary world characterized by overpopulation and scarce resources (Held, 1980). Nozick modifies the Lockean proviso and tries to make it compatible with the present world (will be explained below).

For original appropriation Nozick accepts the first come, first served principle. Nozick in a footnote relates a case analyzed by Hastings Rashdall which imagines a traveler who happens to reach several miles ahead of others and appropriate the only source of water in the desert (Nozick, 1999). To Nozick, Locke’s is a stringent proviso, therefore, it would not allow the appropriation of the well by one person because appropriation by one person does not leave “enough and as good” for others. However, supposedly, in consonance with the spirit of the Lockean proviso, Nozick proposes a weak version of the proviso according to which the first appropriator is the rightful proprietor of the water-source “provided that the first traveler shares the water with the others (or sells it to them, though not charging whatever he pleases for it)” (Hunt, 2015). On the weak version of proviso, if an appropriation does not aggravate opportunities of others to use things it is legitimate (Fabre, 2007). It can be understood even from the weak proviso that Nozick, by conditioning the legitimization of private property with creating opportunities for others, promotes equality, though, to a lesser extent than, for instance, Rawls does. Contrary to Nozick, for Rawls, past distribution is irrelevant to present patterns of distribution (MacIntyre, 2007).

Nozick prefers the weak version of the Lockean proviso also to resolve what Wolff (1996) has called ‘zipping back’ argument, or it may be called the ‘zipping back’ problem (Hunt, 2015). For Nozick, the weak version of the Lockean proviso resolves the ‘zipping back’ problem in that it compensates for the inability of the non-appropriators to access the land by generating new opportunities of transfer for them. Thus, it is Nozick’s contention that appropriation and private property with weak proviso is legitimate on many accounts. Two major reasons are that it promotes efficiency and profitability by putting the means of production in appropriate hands; secondly, it encourages experimentation (Nozick, 1999). The moral foundation for the protection of property rights, for Nozick (in accordance with Kant’s formula of humanity), is that human beings, normatively speaking, cannot be instrumentalized.

One of the major objections to Nozick's entitlement theory of justice is that "gross inequalities," endorsed by Nozick's theory, "destroy any sense of community" (Wolff, 1996). Duncan (2005) argues that rejection of positive rights leads to concentrated economic power (a type of force) in the hands of the appropriators which they use over labor. Private economic power can be used to create and maintain "a caste like system of social stratification" (Duncan, 2005). Private economic power is used to instrumentalize labor and the property less (Duncan, 2005; Kymlicka, 2002). However, it should be noted that labor contracts are supposedly freely chosen and, in Lockean as well as Nozickean sense, there are no property less persons since everyone has a body. Duncan argues that "the state's power can be used to make these private forms of power more accountable, by (among other things) enabling... the formation of employee organizations (e.g., unions); and by-passing anti-discrimination laws, health and safety laws, minimum wage laws, and mandatory over-time pay laws" (Duncan, 2005). Some theorists have argued that Nozick's rejection of the stringent version of the Lockean proviso justifies forcible taxation in order to ensure reparation for those who are made worse-off because the Lockean proviso is not enforced (Kymlicka, 2002). In the case of inventions and innovations, Nozick (1999) strongly supports patents and intellectual property rights. However, as a rough rule of thumb, a time limit must be placed on patents on the basis of approximation of time required for independent invention or discovery in the absence of current knowledge of discovery or invention (Nozick, 1999).

If a selfish scientist using her own brainpower and funds finds a cure for cancer and holds out for 20 trillion dollars in compensation, the Nozickean line of reasoning suggests that the threat to the global economy must not be evaded by invading his/her hard drive to take the formula while presenting her with 50 billion instead (Miller, 2018). However, Nozick fails to show as to why equality is not a value, or why liberty is more significant than equality (Wolff, 1996). It appears that Nozick does not succeed in resolving the tension between liberty and equality. Nozick attempts to resolve the problem of balancing liberty and equality by endorsing any level of inequalities and embracing liberty as the only or the most important value. However, it is perhaps in the context of tension between liberty and equality that "the exact nature of his [Nozick's] theory is left for future work" (Davis, 1982). Nozick has founded his theory of justice on a circular definition of freedom for which he has been criticized by many theorists such as Trebilcock (1993), Cohen (1995), and Olsaretti (1998), among others. Nozick conceives of justice in transfer as voluntariness and he understands voluntariness as justice (Cohen, 1995). That is, Nozick contends that a transfer is just if it is voluntary (i.e., coercion-free), but when we ask what constitutes voluntariness, Nozick replies that someone's action is voluntary if and only if there were no unjust limitations on his opportunities (Cohen, 1995). Nozick's conception of freedom seems "indeed to be just tailored to defend private property" (Fleurbaey, 2004). For example, public ownership of roads, Wolff (1996) contends, promotes liberty rather than impeding it. Thus, Nozick's position on

equality (his rejection of equality as a value) is not rigorously justified and his stance on liberty (circular as well as tailored) is not clear. Nozick appears to be reticent on problems such as egalitarian commitment (in principle) of governments to provide equal security to all. If security is privatized the rich are likely to be able to buy more security than the poor leading to severe inequalities in personal security (Taylor, 2021).

JIR deals with the problem of past injustices. Though rectification of past injustices seems impossible, Nozick is willing to invoke Rawls's difference principle in order to provide a one-time general redistribution of resources (Kymlicka, 2002). There may be past injustices in acquisition as well as in transfer. If A were to hold a piece of property that he stole from B (or that he bought from someone who stole it from B), justice and respect for property rights would demand rectification—that is, redistribution (Zwolinski, 2018). Taxation, for example, may be a type of injustice in transfer, and therefore, rectifiable. Acquisition of land through colonization³ is injustice in acquisition. Cases of colonization demonstrate that not only individuals may be subjected to harm and oppression, but nations and communities fell prey to injustice. No reasonable person among us can say with confidence that the property we claim as our own is not tainted with injustice, if we trace its origins far enough back into the distant past (Zwolinski, 2018). Herbert Spencer remarks that the titles to property are traceable to such sources as violence, superior cunning, and coercion (Spencer, 1995). Spencer (1995) also claims that the passage of any amount of time does not transform an illegitimate acquisition into a legitimate one. The nineteenth-century American libertarian and abolitionist Lysander Spooner advocated the violent revolution of the Irish peasantry against their landlords precisely on the libertarian rectificatory grounds (Zwolinski, 2018).

Though Nozick remains silent on the possibility of violent revolutions against illegitimate owners of property, he, nevertheless, is tilted to approve of 'patterned principles of justice' as rough approximations for the rectification of injustices. In order to achieve this goal, Nozick is willing to approve of the organization of the society "so as to maximize the position of whatever group ends up least well-off in the society" (Nozick, 1999). The endorsement of this rough rule of thumb implies that Nozick's theory of JIR, in certain cases, seems to lead us to Rawls's Difference Principle! (Wolff, 1996). Thus, the principles of acquisition and transfer appear to contradict the principle of compensation/rectification in that the latter approves of coercive taxation (Fabre, 2007).

³Colonization implies the occupation of a foreign land with the settlement of colonists (Ferro, 1997).

1.3 Assessing the Prospects for the Provision of the Nozickian Global Libertarian Distributive Justice

The original appropriation/acquisition is a central problem of justice, especially, at the global level. The afforested analysis of Nozick's entitlement theory of justice suggests that a just Nozickian appropriation seems to pass through three stages: (i) first come, first served principle (ii) mixing of labor with unappropriated resources (iii) fulfillment of weak version of the Lockean proviso. However, neither Locke's stringent version of the entitlement proviso nor Nozick's weak version of it can be applied to the lands that have already been appropriated from native people. In any case, colonizers are bound to violate the first of the three stages mentioned above for Nozickian just acquisition because they come second and not first. Likewise, enslavement that prevailed in many countries is a case of unjust holding on Nozickian grounds. For example, there are numberless questions about past conquests, and illicit gains, such as the question of determining the living standards of the Black members of the USA if the White had not enslaved them (Gregori, 1979). It has been estimated that, since 1619 to the abolition of slavery in 1865, the USA alone exacted a total of 222,505,049 hours of forced labor from the Black; the evaluation of these hours at the minimum wage in the USA, with a modest interest rate, gives the figure of \$97 trillion today (Hickel, 2017). Currently, 14 Caribbean nations, represented by the law firm Leigh Day, are in the process of suing Great Britain for slavery reparations worth \$300 billion (Hickel, 2017). Thus, JIR seems impossible in the cases of past injustices in acquisition. Nozick unconvincingly expresses his inability to determine a point of time in history from where rectification of past injustices needs to be started and concludes that he does not "know of a thorough or theoretically sophisticated treatment of such issues" (Nozick, 1999). This inability exhibits, on the one hand, the abstract character of Nozick's libertarian entitlement theory of justice, and, on the other, continuing failure of capitalism to conceptualize a theoretical framework for the provision of global distributive justice.

JIR may be established in the form of compensation or reparations for past injustices. However, in relation to JIA and in transfer Nozick rules out a state having authorities more than the minimal state. Among the most common examples of historical rectification are the compensation received by the Jews from Germany after the Holocaust, and adoption of affirmative action by the US government in order to favor the Black and other former slaves (Collste, 2015). On Nozickian grounds of JIR, David Lyons (1982) conceives of the case for returning much of the USA to the American Indians to rectify past injustice in acquisition. Fabre (2007) advocates compensation by the US government for the violation of the Sioux Treaty of 1868. Waldron (1992) argues that the present descendants of Native Americans do not have claim to the land appropriated by the new settlers because much of the land was unappropriated by the Native Americans before the new settlers arrived. This scenario reveals that Nozick's theory does not succeed to systemically develop and illustrate the application

of JIR on the cases of colonization which implies that his theory does not seem to work at the global level. It may be noted here that the more mainstream capitalist theories of justice, such as Rawls's theory of fairness do not conceive of rectification of past injustices. Wong (2021) argues that libertarians such as Nozick may constitute a sect (of capitalism) within a political liberal state. Wong (2021) calls them 'unreasonable but intelligent citizens. The liberal state should not disregard them but try to convince them on the state's use of coercion in order to bridge the gap with them (Wong, 2021).

1.4 Assessing the Role of the Nozickian State in Implementing the Entitlement Theory of Justice

1.4.1 The Nature of the Nozickian Minimal State

Nozick developed his idea of the minimal state in response to the anarchist claim regarding the establishment of the state. Anarchists claim that the establishment of the state is immoral because the emergence/establishment of the state, as a monopoly of violence and as a protector of everyone within a territory, is bound to violate individuals' rights in the course of its emergence (Nozick, 1999: xi). Nozick employs invisible hand argument to explain the establishment of the minimal state, according to which the minimal state, through a gradual process, comes into existence from anarchy (the Lockean state of nature) by the actions of rational and self-interested individuals, without encroaching on anyone's rights in the process and without anyone intending to establish it. The idea of the invisible hand is that "actions by many people can lead to a result which looks as if it was intended, but in fact was not" (Lacey, 2001). The emergence of money, to Nozick, is also an example of the invisible hand argument. By using the invisible hand explanation for the growth of the state Nozick gets rid of reliance on artificial, unspontaneous social contract, according to which the establishment of a legitimate state depends on the consent of the governed whether tacit or expressed.

The minimal state, to Nozick, emerges naturally by the operation of spontaneous market forces. Nozick rules out the idea of a relatively extensive state in favor of the minimal state and contends that the former "violates people's rights" (Nozick, 1999). It is thus Nozick's contention that a minimal state is an unplanned outcome of the spontaneous actions of individuals in the state of nature (Bader, 2010). The spontaneity argument⁴ also implies that the free market system is natural, as Adam Smith calls it a 'system of natural liberties. Nozick begins by assuming that the competitive process in the defense industry would ultimately lead to the emergence of a single dominant firm because of the exceptional scope of the economies of scale in this industry; moreover, the dominant firm would drive out the

⁴The spontaneity argument states that the minimal state could have come about through a series of incoherent private transactions from the 'state of nature' (say, Lockean) without violating rights of any individual (Fried, 2011).

competing firms by force and this use of coercion would be legitimate because the “rival judicial procedures would impose illegitimate risk on the dominant firm’s clients” (Caplan, 2008). Thus, Nozick offers an economic account of the origin of the nation-state (Moss, 2010).

Nozick’s minimal state does not emerge all at once but is the outcome of progression through six stages. These stages are: (i) anarchy or the Lockean state of nature (ii) mutual protection associations (or independent protective associations) (iii) commercial protection agencies (iv) dominant protection agency or a federation of cooperating agencies (v) the ultra-minimal state (will be explained below) (vi) the minimal state. The first stage is anarchy where only the law of nature (i.e., the law of reason) prevails. Though the law of reason prevails in the state of nature there are many ‘inconveniences’ that can only be remedied by civil government (Locke, 1980). In a similar vein, Nozick argues that the state of nature is undesirable because unregulated self-interest of individuals, in the state of nature, will produce endless acts of retaliations and exactions of compensations along with the inability of persons to enforce their rights (Nozick, 1999).

Nozick argues that persons possess natural rights in the state of nature that cannot be adequately protected in that state. Thus, because of the ‘inconveniences’ of the state of nature groups of people will unite to form ‘mutual protection associations’ which would take care of the rights of the members of the associations. On the question of why others would join with the individual for the private enforcement of his rights, Nozick remarks that they would support him by repulsing an offender or going after an attacker because they may be public spirited, or his friends, or they may be reciprocating his past help, or they expect his help in future, or they want something in exchange of help (Nozick, 1999). This process would lead to the emergence of mutual protective associations which are independent from each other. Each of the associations “is pursuing the identical, *prima facie* legitimate end (protecting its own members from wrongful transgression by nonmembers). In the course of pursuing that end, each imposes identical risks on nonmembers by virtue of its unavoidably error-prone procedures” (Fried, 2011). Thus, these associations would not only offer solution to the problem of security but would cause problems as well. In the absence of a division of labor it would be unclear who has when to perform which job. Members may also take undue advantage of the association. Members will be unduly required to spend time and take risks. This scenario would give rise to the market for security services leading to emergence of several commercial protection agencies or companies on the same geographical area set up by entrepreneurs on the principle of free market or *laissez faire* (Nozick, 1999). The commercial protection agencies will rival with each other to protect the interests of their clients against each other which will lead to violent conflicts. The consumers/members would flow to the most powerful agency. Nozick (1999) argues that when the maximal and the less than maximal product compete on a free market the worth of the latter goes down disproportionately as more consumers choose the former. Consequently, “customers will not stably settle for

the lesser good, and competing companies are caught in a declining spiral” (Nozick, 1999). Gradually, a process of mergers, takeovers, and cartels will ensue which will lead to the advent of one dominant protection agency, or a federation of cooperating agencies, though, not a monopoly (Wolff, 1996). The dominant protection agency will extinguish all other independent associations. Nozick contends that a single dominant agency would emerge because the clients would seek to become the members of the strongest protection agency which would lead to the gradual disappearance of the weaker agencies (Bader, 2010). Thus, a dominant protection agency emerges, which marks the fourth stage.

A dominant protective agency does not fulfill the definition of a state on two accounts. First, everyone is not a member of the dominant protective agency because it does not obligate everyone to become its member, and therefore, it cannot be called a monopoly of legitimate violence. In other words, some individuals at this stage may enforce their rights privately. Secondly, the dominant protective agency does not provide its security services to all but only to those who consensually get its membership. Thus, under a dominant private protection agency everyone who uses force without agency’s permission is not punishable (Bader, 2010). But the dominant protection agency cannot long tolerate the private enforcement of punishment and exaction of compensation by individuals, especially when the members of the dominant agency are subjected to private enforcement of justice by nonmembers. The dominant protective agency would thus disarm the nonmembers and would become a de facto monopoly of violence, that is, the ultra-minimal state. It is yet deficient in one attribute to become the minimal state, that is, it does not provide security services to all, but only to its members, that is, its services are denied to those who do not join or cannot pay (Feldman, 2011). The ultra-minimal state does claim a monopoly of authorized violence, and thus, “prohibits the formation of other protective agencies (such as the Mafia, or the KKK) within its domain” (Feldman, 2011). The ultra-minimal state does not provide any other services than protection to its members in exchange for money (Feldman, 2011). However, the ones, whom the dominant agency (now the ultra-minimal state) has deprived of the right to privately enforce punishment and exact compensation, now need to be compensated by the state, though they are not members. Finally, the dominant protective agency provides security services to all whether clients or nonclients, and thus attains the status of the minimal state.

The basic presumed reason for self-interested rational individuals to ultimately progress towards the founding of the minimal state is the underlying realization that clashes add to the transaction costs of economic activity (Moss, 2010). Nozick’s spontaneity argument does not appear to be plausible because the evidence demonstrates that (with a few exceptions) the modern states came into existence militarily and by means of conquest and colonization (Sylvan & Sparrow, 2007).

At the global level, Nozick imagines a utopia⁵ that “is Tieboutian⁶ paradise, in which every imaginable sort of community is on offer” (Fried, 2011). These imagined diverse communities satisfy the preferences of “visionaries, and crackpots, maniacs, and saints, capitalists and communists, and participatory democrats” (Nozick, 1999). Nozick is well-aware that the real world is not analogous to his imagined utopia. Nozick remarks that communities, in the real world, create “problems of foreign relations, and self-defense, and necessitate modes of adjudicating and resolving disputes” between them (Nozick, 1999). However, Nozick’s view of the global utopia may be grasped by the following example:

“(If) American citizens do not like the laws adopted by their fellow countrymen by majority rule (indeed, by any procedure), they are free to leave. If they would prefer a more socialist-democratic alternative, there is Canada and Western Europe. If they would prefer something closer to the libertarian ideal of unregulated capitalism, there is the Cayman Islands” (Fried, 2011).

1.4.2 Functions of the Minimal State

For the provision of justice at the national level, Nozick proposes a minimalist account of the state (a night-watchman state of the classical liberal theory) which holds that the institutions of the state are required essentially to protect individual liberty in the sense that the state must be confined to the functions of (i) protecting the citizens from force, (ii) from fraud, and (iii) the enforcement of contracts (Nozick, 1999). The police are required to protect the citizens from internal coercion whereas the military is established to protect the citizens from invasion or external coercion.

Nozick subscribes to the Weberian definition of the state that the state is an agency that possesses “a monopoly on the use of force in a geographical area⁷” (Nozick, 1999). The Nozickian state is established within a geographical area, and more than that, Nozick proposes an “economic account of the origin of the nation-state” (Moss, 2010). The Nozickean minimal state also performs the function of collecting taxes, though not for the purpose of redistribution. The imposition of Nozick’s entitlement theory of justice demands performance of three of the four functions of the state specified by Therborn (1978). First, Nozick’s minimal state is a monopoly of violence in a geographical area which has its military defense

⁵“The best of all possible worlds that Nozick can imagine is one in which we are given a choice among a reasonably diverse range of communities and then told, with respect to each of them, take it or leave it” (Fried, 2011).

⁶The Tiebout hypothesis was formulated by economist, Charles Tiebout. According to it, in different societies, different taxes are levied, providing different bundles of public goods and services resulting in a Pareto-optimal allocation allowing individuals to choose their place of residence in a society they desire (Auerbach, 2008). It needs, however, to be noted here that apart from the dissimilarity between such an entry fee and the actual tax on property, many other issues are involved in viewing the soundness of the Tiebout model (Auerbach, 2008).

⁷Prospects for a Nozickean world state will be analyzed in the next section.

to protect its members from the outside invaders. The Nozickian state uses the apparatus of the military, the police, prisons etc. to safeguard its monopoly of violence. Secondly, Nozick does not explicitly articulate political governance (by supreme rule-making) as one of the functions of the minimal state. He proposes his minimal state as if “it does not have a constitutional structure, legislative bodies, political parties, electoral campaigns, or citizens” (Mack, 2011). Moreover, the Nozickian minimal state is undemocratic in that it does not mind lack of popularity among the citizens and is not subject to elections (Wolff, 1996). Finally, Nozick’s state also performs the function of judicial regulation of a given social formulation. With the emergence of the dominant protective agency, a common system, for the enforcement of rights and judgments in the face of competing claims, encompasses all persons in a specific territory (Nozick, 1999). The apparatus of the judiciary performs the function of judging between competing claims and enforcing rights by punishing or exacting compensation. It is in line with these functions of the state that Nozick approves taxation only to fund the defense, the police, and the administration of justice, as has been mentioned above. It needs however to be noted that differences between Rawls and Nozick regarding the extent of the state’s duties to the least well-off are not as significant as they might appear. For example, “the largest items in the federal budget of the United States—military expenditures, social security, and Medicare—have little to do with poverty relief per se” (Zwolinski, 2018). It is so because, for example, both Medicare and social security are justified on the grounds not of income but of age.

1.5 *The Non-Existence of a Global Solution: Rationale*

1.5.1 *Nozick’s Rejection of a World State*

At the national level Nozickian entitlement justice is provided by the national minimal state. Thus, it may be argued that JIA, JIT, and the rectification of past injustices at the global level is not possible in the absence of the Nozickian world minimal state. The imagined global minimal state has to perform its essential functions of protecting all people from force, fraud, providing security services to all, and enforcing contracts. The Nozickian world state would collect taxes at the global level and would fund the state apparatus such as the global police for the maintenance of law and order, and the global judiciary for the administration of justice. It would be one of the essential duties of a global minimal state to rectify past injustices, that is, it would take rectificatory measures against acquisitions of property based on force and fraud. In view of the fact that the present global inequalities in terms of concentration of property and wealth in rich countries are partially the outcome of unjust historical acquisitions in the form of colonization, slavery, and plunder; demand for rectification of unjust holdings is in line with Nozick’s approach to justice (Collste, 2015). Wolff (1996) argues that with reference to issues such that the land claims of American Indians, or the violations of rights of Black American slaves, or the expropriated peasantry, Nozick tends

to approve of taking back the anti-welfarism of libertarian doctrine. Nozick rules out the imposition of socialism for being too severe punishment “for our sins”; Nozick suggests “in the short run a more extensive state in order to rectify them (past sins)” at national level (Nozick, 1999). Historical injustices may be understood as “legalized natural⁸ crimes, committed by morally competent agents” (Schefczyk, 2009). Collste (2015) advocates the rectification of unjust acquisition of land through colonization. Efforts should be made for the rectification of past injustices in the form of generous immigration policies, and affirmative action (Collste, 2015). Such policies, however, are not visible. For example, the European Union functions as a fortress which invites people within its walls from one or two poor countries just to do the dirty menial work as well as heavy lifting (Klein, 2003). Hilary Beckles (2013) argues that Great Britain has an obligation to pay to the Caribbean peoples because they were subjected to drudgery and enslavement in the colonial era. A sizeable portion of the wealth produced through the Industrial Revolution as well as the gigantic economic progress of Great Britain was dependent on the trading of slaves and the slave economy (Beckles, 2013). Janna Thompson (2002) develops a theory of reparative justice, in particular, for the Aborigines in Australia and the Maori in New Zealand. In addition to colonization, in “current economy, corporations use government to game the economic system for their own advantage” (Brennan, 2012).

JIT is violated both at the national level and global level in a large variety of ways, such as giant MNCs and other big businesses receive multi-billion dollars “bailouts, subsidies, and loans from governments and use the power to seize land and property from the poor to their own benefit” (Brennan, 2012). Waldron (1992) argues that it is impossible to decide on the basis of counterfactuals, because there would have been multiple opportunities for the native people and one cannot be certain about the path they might have followed. Thus, Waldron (1992) contends that entitlements wither away over time. Nozick is silent on the application of his weak version of the Lockean proviso at the global level. The weak version of the proviso demands the provision of equal opportunities to all people across the globe who have been unable to benefit from the private ownership of property. The only way to introduce this Nozickean proviso “is to put ‘initially unowned resources’ under a special status of common rights-holding, so that, even when they are privately managed, their use can benefit all mankind” (Fleurbaey, 2004; Steiner, 1994). This seems practically impossible. Robert Penn Warren denounces the whole notion of untangling the debts of history as a grisly farce (Bittker, 2003). Nozick’s theory of entitlement is impossible to apply globally, because it fails to be attentive to changing circumstances (Waldron, 1992). The impossibility of rectifying past injustices implies the illegitimacy of initial acquisition also which casts doubts

⁸A natural crime implies an intentional violation of a ‘natural right’ whereas ‘legalized’ implies that a natural crime must be allowed or tolerated by the legal system (Schefczyk, 2009).

on the legitimacy of JIT as well. Moreover, Nozick does not seem to succeed in establishing a case as to why self-interested rational capitalist individuals would accept and practice the rectification of past injustices on libertarian grounds.

Nozick subscribes to the view that rights protection in general or security service in particular “is a marketable economic good comparable to laptop computers, fine meals at fancy restaurants, and haircuts” (Mack, 2011). Phenomena that lead to the emergence of a minimal state from anarchy include spontaneous formation of groups, division of labor, market forces/pressures, mutual protection agencies, economies of scale and rational self-interest; these forces and phenomena lead to the advent of “a minimal state or a group of geographically distinct minimal states” (Nozick, 1999). Regarding the size of the jurisdiction of the state, Nozick raises the questions on the size of communities and cities, and more importantly, he asks, “How will economies of scale operate to fix the size of the communities?” (Nozick, 1999). In response to these questions, Nozick favors the expansion of the boundaries of the state to the extent of optimal jurisdiction. “What is desired is an organization of society optimal for people” (Nozick, 1999). The optimal jurisdictional area⁹ may be understood with the example that follows:

“If the marginal cost of adding individuals to the protection agency rises, there may come a point, with rising average cost, at which the marginal sacrifice of private goods as perceived by the choice-making individual is greater than the marginal gain in security. At this point (short of world monopoly) the optimal size of the protection agency has been achieved” (Moss, 2010).

To Nozick, it is neither the state of anarchy nor a world state, but only the nation-state that provides the optimal jurisdiction area (Moss, 2010). What is common in anarchy and a world-state (one-world government) is that they are both, to Nozick, corner solutions, and thus, he rejects them both (Moss, 2010). The term ‘corner solutions’ seems to imply that they are both unsustainable solutions. Anarchy, to Nozick, is unsustainable in that it necessarily progresses to a minimal state (without anyone intending this progression) whereas a world minimal state is unsustainable because (if established) it would break up into several minimal states bounded by an optimal jurisdiction area. Though Nozick does not provide empirical evidence as to why beyond a certain territorial limit the costs of providing security services will rise, he does not conceive of a world state but rather the world with a number of distinct dominant protection agencies (Moss, 2010). To Nozick, the benefits offered by a minimal

⁹The optimal point, for example, between work and leisure for a person would be where there is parity between the utility attained by the extra consumption earned by the last hour of work and the last hour of leisure he would enjoy; similarly, the size of the territory and heterogeneity of population determines the optimal size of the territory of a state; more precisely, it is an optimal point between the economies of size and costs of heterogeneity that determines the optimal size of a country (Alesina & Spolaore, 2003).

nation-state outweigh the benefits offered by both anarchy and a world state. Whereas Rawls rejects a world state because it would, he argues, become a soulless despotism, Nozick does not use the criterion of liberty for ruling out a world state. Nozick's conception of justice at the national level is based on equal liberty but he does not invoke this criterion to renounce the idea of establishing a global minimal state. Whereas Rawls contends that liberty cannot be sacrificed for the sake of efficiency, Nozick seems to downplay equal liberty for average cost. Nozick rules out a world state because a nation-state offers more benefits in terms of being cost-effective. Moreover, Nozick has rejected a global minimal state without adequately accounting for his claim that "costs may be expected to rise with further expansions in the size of protection associations" (Moss, 2010). However, "as soon as optimization is at issue, trade-offs can become necessary to achieve the optimal way of approximating utopia" (Bader, 201). The rationale for the optimal jurisdiction size is that it seeks the trade-off between the economies/benefits of size/scale and the costs that the scale brings in the form of heterogeneity (Alesina & Spolaore, 2003). "For high economies of scope, the world would be optimally organized," not in the form of a world minimal state, but in the form of "a number of non-overlapping centralized jurisdictions, each providing its citizens all the necessary public goods and services. We consider these centralized jurisdictions to be countries" (Alesina & Spolaore, 2003). In case of the homogenous inhabitants living in a specific geographical area, expansion of size will be rewarding only up to "a point where diseconomies of scale set in" (Alesina, Baqir, & Hoxby, 2004). Alesina, Baqir, and Hoxby (2004) provide empirical evidence which suggests that in case of small population in a jurisdiction, costs per person fall significantly but the significance of economies of scale starts declining beyond some specific point "and the decline is nonlinear" (Alesina, Baqir, & Hoxby, 2004).

In a similar vein without substantiating his contention with empirical data Nozick had argued in favor of natural emergence of multiple minimal nation-states. Nozick asserts that rational, self-interested and spontaneous actions of individuals and groups, in the state of nature lead to the emergence of "single protective agencies dominant over geographical territories; each territory will have either one dominant agency or a number of agencies federally affiliated so as to constitute, in essence, one" (Nozick, 1999). Nozick's model of global justice does not conceive of a global minimal state but several minimal states for different geographical areas. Thus, the Nozickian approach to justice rejects the replication of national state institutions and apparatuses at the global level which implies that the application of entitlement theory of justice at the global level seems impossible.

The non-emergence of a world minimal state is itself an evidence of the fact that a world state cannot come into existence on its own through a spontaneous gradual process that Nozick has proposed for the emergence of a minimal nation-state. Conversely, the claim for the emergence of a minimal state at the national level is also unsubstantiated. The Nozickian world consisting of various minimal states is utopian in the sense that it has never taken

place. "There is no evidence whatsoever that any state was founded or developed in the Nozickian manner" (Rothbard, 1977). Murray Rothbard argues that data (where available) show that the nation-states (more extensive than the imagined minimal state) were created through a process of violence, conquests, and exploitation, i.e., in violation of individual rights (Rothbard, 1977). Eric Mack contends that if rational self-interested individuals take individual rights as seriously as Nozick thinks they should, they "must reject even the minimal state," which implies that the spontaneity argument for the emergence of the minimal state does not hold true (Mack, 2011). Nozick's promised individual liberty, on Nozick's own grounds, is violated in the sense that in "Nozick's ultra-minimal state, dissenters want to remain completely independent, but have been denied that option" for the creation of a minimal state (Fried, 2011). On the similar grounds, libertarian formulation of individual liberty is denied in a political liberal state because liberal state does not deny welfare or positive rights. Nozickian reasoning for the 'emergence' of a minimal state contradicts the demand of spontaneity and 'invisible hand' interpretation. The Nozickian minimal state does not come into existence spontaneously but "the visible hand of one dictatorial protecting agency conquers and absorbs all the others by force," thus coercively extinguishing every other independent protection agency's natural right to self-defense (Fried, 2011). Consequently, the dominant protecting agency not only extinguishes all other independent protecting agencies by force, but it incorporates the nonmembers also by force. Thus, neither a minimal state is natural and spontaneous nor are there prospects for the development of a global minimal state for the provision of global capitalist libertarian distributive justice.

2. Conclusion

Nozick's theory of justice consists of three parts: JIA, JIT, and rectification of injustice. In its essence, Nozick's theory of justice seeks to provide equal liberty to all citizens of a nation-state. Distribution, to Nozick, is not separated from production. Thus, Nozick rules out redistribution of wealth and income. However, taking care of JIA, JIT, rectification of past injustices, and the provision of equal liberty is seen as the responsibility of the state at the national level. A serious problem with Nozick's theory of justice is that it is too abstract. The application of his notion of JIA, and rectification of past injustices is unclear and abstract. Moreover, Nozick rejects the notion of establishing a global state on the grounds of non-optimality of the size of a global state. Thus, Nozick does not provide a framework for replicating the instruments and mechanisms of the state at the global level to provide global justice. However, Nozick would propose that all nation states should adapt the model of a minimal state.

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 - c. Baumol, W.J., 1982, Applied fairness theory and rational policy, American Economic Review, 72(4): 639-651.
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