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Prof. Dr. Syed Mir Muhammad Shah

Vice Chancellor, Sukkur IBA University

Editorial

Dear Readers,

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

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 The journal has been archived by world's renowned scientific repositories.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

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

Dr. Khalid Ahmed

Editor-in-Chief

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Impact of Leadership Empowerment on Job Satisfaction of Female Teachers of Girls Colleges of Sindh Mediated by Work Engagement

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Abstract

This study aims to determine the role of leadership empowerment and work engagement in predicting job satisfaction of female teachers of Government Girls Colleges of Sindh, Pakistan. The study has utilized a survey questionnaire consisting of 35 items to collect data from 360 female faculty members of Government Girls Degree Colleges of Sindh. The data were analyzed by using SPSS for descriptive analysis and Smart PLS software was used to extract the inferential statistics. The results have confirmed the research objectives and answered all research questions for addressing the problem statement. Thus all the hypotheses were found supported. The work engagement was predicted by leadership empowerment at the rate of 29% and job satisfaction was predicted by leadership empowerment at the rate of 32%. Thus the work engagement has played a role of partial mediation. Job satisfaction is considered as most researched job outcome in HR. In the service sector, the female teachers' job satisfaction has not attained serious efforts of researchers and management of girl's colleges to address their problems effectively. In this context, this study has figured out the possible solution of female teachers' problems.

Keywords: Leadership Empowerment; Work Engagement; Job Satisfaction

1 Introduction

1.1 Empowerment

In the field of management and psychology, the term work engagement has got much importance over the past two decades. It helps organizations to achieve employee competitive advantage by supporting the role of leadership empowerment to satisfy employee needs and wants. Leadership empowerment in organizational work outcomes was found somewhat critical for employees to perceive their job. In educational institutes of Sindh, Pakistan, the ratio of female teachers is on a lower side when compared to male faculty members. On the other hand, only educational institutes provide equal opportunity to females when compared with other service sectors. Thus, this study focuses on the important unit of society especially to help the education

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department of Sindh to formulate policies in accordance with female teachers' needs and expectations.

Employee work engagement and leadership empowerment is a rising idea in business, organization, organizational psychology, and human skills advancement fields (Wollard and Shuck, 2011). There has been a great enthusiasm for association in organizations for employee work engagement and leadership empowerment as a good move towards employee job satisfaction. Some recent research has viewed that work engagement of employee foresees employee job satisfaction resulting more in its performance, organizational achievements, and financial outcomes with performance of the firm like total shareholder return and employee job satisfaction (Rangnekar et al., 2011). Fulfilling positive work-related experience and state of mind is to be said as work engagement and leadership empowerment by some authors. It is observed that positive job satisfaction with good mental health is achieved through work engagement and leadership empowerment (Schaufeli et al., 2004). According to some researchers that (JDR) model is well known and is recommended in many of previous work studies for the basics of leadership empowerment and work engagement of employees in an organization setting. As technological advancements change continuously evolves and give shape to organizations to set up their working relationship, known as a multidimensional construct (Rangnekar and Barua, 2011).

The previous review suggests that there is a need to re-examine and scrutinize the central theoretical assumptions that have underpinned much of the leadership empowerment and work engagement, its managerial discourse, which often champions what is meant by a leadership empowerment and work engagement actually. Nowadays to behave effectively and efficiently in financial situations in the firm, there must be a leadership relationship between an employee and his/her work; it is also a way to compete better than before (Chaudhry et al., 2011). Leadership association makes through its mentally executive nature, an employee may accept that their mental association has been satisfied or breached based on whether they have seen commitments or not which are kept for their work role in the firm (Bakker and Demerouti, 2007). In case a person accepts that their Psychological Contract (PC) has been seriously breached, this may result in an infringement of the mental contract which decreases the performance in general work and the fulfillment of representative that levels between partners and can bring around demeanors and behaviors that will lead to destitute execution results as a whole (Zhu, 2013). In this sense, this study analyzes the relationship between work engagement, leadership empowerment, and job satisfaction, and the role of work engagement and leadership empowerment. Employing employment has been tested and uprightly for years of employment, but the growth of the world has increased due to growth. Employment satisfaction is least important than any organization. According to Howard & Sheth (1969), Employees' Confirmation Science, analyzed science since 1960, this introduced various methods and concepts. However, until the 1990s the job did not ensure the management of the employee on the authority and responsibility (Oliver, 2007). The managers perform an extraordinary part in strengthening the talent of the strongest, which is the center of organizational "success (Bhatnagar, 2007; Druskat & Wheeler, 2003; Yukl & Becker, 2006).

1.2 Leadership Empowerment

Conger and Kanungo (1988) and Hui (1994) identified five dimensions of Leadership Empowerment as meaningfulness, autonomy; self-decision making, accountability, information sharing, and skills development which are further researched by various authors from time to time and finally reduced to all the four dimensions except meaningfulness? Though meaningfulness was found to be the most predicted dimension in leadership empowerment. Empowering leadership boosts individuals' experience of inner motivation relating to their awareness of competence, self-independence, and influence and meaning (Boudrias et al., 1992). Empowering leadership has been shown to enhance the creativity of employees (Zhang & Bartol, 2010), engagement of employees (Tuckey et al., 2012), knowledge sharing behavior (Xue et al., 2011), and job satisfaction (Kim, 2002; Lee, Cayer, & Lan, 2011).

Finally, the leadership empowerment scale was developed and categorized into five dimensions with fourteen items to measure its role. Turey et al., (2012) found that empowering leadership could help to enhance awareness of job demand. They described that this is the outcome of enhanced responsibilities and problem-solving provided by the empowering leader to subordinates. Further, they described that empowering leaders enhance job resources and that the mixture of resources and demand enhanced the work engagement of the employees. Empowering leadership also motivates people to take part in decision-making (Tuckey et al., 2012), delegates responsibilities (Bass & Riggio., 2006), and motivates team members to work combined and autonomously without direct supervision (Tuckey et al, 2012). From the managerial perspective, employee empowerment is a comparative pattern that illustrates how managers share information, power, and resources with those who don't have it (Fernandez & Moldogaziev, 2011).

1.3 Work Engagement

Employee engagement is the positive, affective mental work-related state of mind that leads workers to effectively express and contribute themselves emotionally, cognitively, and physically in their part execution at work (Rurkkhum, 2010). In spite of the fact that there are somewhat distinctive sees in characterizing worker engagement (Harter et al., 2002: Mischkind, & Meltzer, 2005), within the human assets writing, worker engagement is by and large concurred to be a mental feature that includes vitality, eagerness, and engaged exertion (Gruman & Saks, 2010; Macey & Schneider, 2008).

Employee commitment contrasts from a few ideas that exist in authoritative conduct, for example, hierarchical duty, and hierarchical citizenship conduct, and employment association. Authoritative responsibility varies from the commitment that allows to mentalities and ties an individual to their association. Commitment isn't a mentality, it is how much an individual is concerned and has a connection to execution in their job. Engagement is not an approach, it is the degree to which an individual is concerned and has a connection to execution in their work responsibility at work (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004). OCB includes volunteer and casual practices that can

support partners and associations, while commitment centers on the job of an individual's conventional exhibition past extra-job and deliberate conduct. According to (Zhang, 2010) work inclusion is the result of a cognitive choice around the ability to fulfill the desires of the work and tied to a person's self-picture. Psychological empowerment is basically an employee's perception, which is related to empowerment.

According to (May et al., 2004) work inclusion is the result of a cognitive choice almost the capacity to fulfill the wants of the work, and tied to a person's self-picture. Leadership empowerment is related to the motivational approach of strengthening (Menon, 2001). Mental strengthening is additionally handled by expanding the self-efficacy (Conger, 1988). Through these four measurements of mental strengthening female instructors feel able to perform any movement or he/she feels dynamic in each work instead of the inert point of a work part (Spreitzer, 1995). Leadership empowerment is a very important concept for researchers because psychological strengthening is related with the motivational approach of strengthening (Menon S. R., 2001). Psychological strengthening is additionally a process of expanding the self-efficacy (Conger, 1988).

1.4 Job Satisfaction

Employees are valuable assets of any industry, and the education department is no exception to this. High Job Satisfaction is interrelated to high productive employees, highly motivated and highly productive employees, means happy customers and exceptional performance there is no rocket science to comprehend that simple terminology. Yet, it is essential to know the views and opinions of employees toward their job and working environment (Zhang, 2010). In order to preserve higher levels of job satisfaction in educational institutions, efficient human resource management is essential, to standardize higher fulfillment of the educational goals which can influence the development outcome of the entire society (Davis & Nestrom 1985).

The Management, Employees, and the environment in the workplace are interrelated with each other and are the biggest contributor to the job satisfaction in any organization. The term 'job satisfaction' can be explained by an employee's psychological response to his or her work. It contributes positively when an employer or higher management, in this case, provides essential job values. Term Job Satisfaction can also be explained as; attitude and feelings people possess about their job. It can be described as job satisfaction if the attitude is positive and supportive. In contrast to that negative and undesirable attitudes toward the job exhibit job dissatisfaction (Spector, 1997).

A collection of feelings and mindsets that people possess about their present job is job satisfaction. Level of severity of job satisfaction can be stretched from extreme satisfaction to extreme dissatisfaction. Moreover, an employee can have different attitudes, about the different aspects of their work, besides having the attitude about their job as a whole. Such attitudes can vary from person to person and can be the

behavior of supervisors or subordinates, or their salaries, working conditions, and their relationships with working peers (Mullins, 2005).

Generally, job satisfaction can be categorized into two aspects; the first one is intrinsic and the second one is extrinsic. Internal elements are entirely dependent on aspects like relationships with seniors or managers, respect and dignity at the workplace. While external elements are dependable on various aspects such as job security, salary structure, opportunities to advance in the field, working atmosphere, and duty timings. (Armstrong M. , 2006). Job satisfaction is an employee's sense of accomplishment and success on the job. It is normally recognized to be directly related to efficiency as well as to personal welfare, recognition, income, promotion, and the achievement of the tasks that lead to a feeling of fulfillment (Kaliski, 2007). Job satisfaction does not only contribute to the performance of the employee but the cohesiveness of workers for the sustainability of accomplishing the organization's mission (George & Jones 2008).

2 Literature Review

The term empowerment may be explained in various ways. Research studies demonstrate that the empowerment is being used in organizations with the idea of the development of independent life, social development, authority, society values affirmation (Ikramullah *et al.*, 2018). Leadership empowerment has been discussed by very few researchers over decades while some of the literature reported empowerment as psychological, structural, and transformational empowerment in the context of leadership, very few reported in the education sector (Gkorezis, 2016). Leadership empowerment in the context of female teachers found that female teachers will perform their duties with full zeal and enthusiasm if they have enhanced self-determination, clear knowledge of organizational goals, well-equipped knowledge, and skills about work performance, have a positive impact on job satisfaction (Tadeus Arufan Jasrin *et al.*, 2020).

Zbierowski (2011) investigated that empowerment of the workforce is one of the concepts that have been proposed for the advancement of human assets. The concept of strengthening was to begin with presented within the 1980s. The prior definition of leadership empowerment is assignment of authority, organization, and empowering implies persuading through improving self-efficiency (Conger & Kanungo, 1988). The key concept to leadership empowerment is giving representatives as much duty and independence which gives them with a considerable sum of flexibility to carry out obligations (Hancer & George, 2003).

While, motivating Self-Directed Decisions, despite the decision-making relationship around plans, goals, and procedures, Motivating Self-Directed Problem Solving, identification of work issues and steps to correct their problems Initiative solving (Konczak, *et al.*, 2002).

Arnold *et al.* (2000) include their leadership decision making, although, Konczak *et al.*, (2000) considered delegation of authority. The study is confident that the successful

authorization will show a great sense of self-determination and will be more affected than just participation. Therefore, the study considered “delegation” central to empowering leadership. Leaders have encouraged employees to understand all aspects of their work through leadership empowerment that employees can possibly feel their job and organization through empowering employees. Legislative power, control, and supervision that are with their job management methods emphasize support and cooperation Chan *et al.*, (2008). “As stated by Srivastava *et al.*, (2006) different leadership behaviors had reviewed, but empowering leader behavior has supposed outstanding value. The five dimensions of leader empowering behavior, mentioned by Konczak *et al.*, (2000) are: **The delegation of authority** where empowering leaders by sharing the information with the subordinates to let them completely take part in work and make effective decisions that are appreciable to the organization (Hakimi *et al.*, 2010). **Accountability for outcomes** targets on leaders repositioning of authority and handing over liabilities to subordinates, making them accountable for outcomes Hakimi *et al.*, (2010); Konczak *et al.*, (2000). **Self-directed decision-making** has been illustrated as granting and concerning the employees to take part in problem-solving procedures Konczak *et al.*, (2000); Van Dierendonck & Dijksta, (2012). With **Information sharing**, leaders distribute the information with subordinates and subordinates shift the information to each other Arnold *et al.*, (2000); Konczak *et al.*, (2000); Pearce & Sims, (2002” Leaders are mandatory to propose subordinates for **Skill development** that would allow them to make decisions and take decisions that would be effective for the tasks (Jordaan, 2007).

Over the some decades various studies have been conducted on work engagement, work engagement is defined as a positive, emotional, and inspirational degree at which a high level of energy is required combined with a high level of dedication and interest towards the job and work **Invalid source specified**. Work engagement is a well-liked concept in research studies because engaged employees can generate new ideas they can do creative work, engaged female teachers always show great enthusiasm towards their work and job, they only focus on their work activities **Invalid source specified**. If female teachers engage themselves in work activities however they can get better results or outputs and they can complete better in role task performance **Invalid source specified**. There are three dimensions of work engagement: Vigor, Dedication, and Absorption.

Vigor: Vigor corresponds to a person who has the eagerness to do work efficiently and achieve a goal. Vigor represents a mental flexibility and a high level of energy while doing any work **Invalid source specified**. Dedication refers to those female teachers who are fully involved in their work and job, dedication is basically about inspiration, eagerness, and motivation **Invalid source specified**. Absorption refers to the sense of attachment with work activities and job, it refers to the high level of attentiveness on job and work, these female teachers are highly related to working and they spent their time on the job and work **Invalid source specified**.

The basis of engagement has been developed on the basis of visor, dedication, and absorption in relation to different roles being performed by employees (Basinska *et al.*, 2016). Some research studies results reveal that the employee disengagement towards work activities as disavailability at the workplace, and non-cooperative behavior lead to wastage of organizational efforts in terms of time, knowledge, and dedication loss (Du Plessis *et al.*, 2018). Eklund Said in (2008) that teachers are important for job satisfaction. According to Bentley (2013), it has been found by many researchers worldwide that a job of working with the job satisfaction is a key relationship and this work satisfaction has a strong relationship when it needs the complexity and autonomy of the tasks, This study also states that there is a positive relationship between empowerment and job satisfaction, when they think that self-determination is an element of self-determination.

Leadership empowerment plays important role in the job satisfaction of the employees in every organization. The employee could not work hard until they are not empowered. So the leaders in every organization must empower their employees so that they can feel motivated and more committed to their job and will work hard to achieve their goals. If the leaders will empower their employees by giving them the authority to make decisions and solve their problems themselves, they will feel more committed to their job and they will work hard to accomplish their goals.

In the study on the employees of State University in northern Malaysia, (Hanaysha & Rozita Tahir, 2016) has ended that the job of employment has a positive effect. (Engström *et al.*, 2010), it has been found in the study of nursing staff that the 8 percent of job satisfaction of the six acres in total empowerment (Sarwar & Khalid, 2011), showed that the authorized agencies survey of employees operating in Pakistan Lahore Affect positive performance. Hechanova *et al.*, (2006) Researched related to the Employment and Empowerment and Empowerment in the Philippines, found in touch with the hotel management in the Philippines, food and beverage management, banking, call center and airline operating, and employment and job satisfaction. Zembylas & Papanastasion (2005) discovered that in research on the Skeptopathy teachers, the satisfaction of the teacher's job is empowered.

According to the analysis results of Fernandez & Moldogazuev (2015), the 2010 Physical Employment Point, point Survey (FISS) data indicates empowerment practices (for example, information about purpose and performance, information associated with the job Delivery and capabilities, and the ability to change the work process) have positive and significant effects on job satisfaction. Ahmad & Oranye (2010) surveyed nurses working in the UK's undergraduate hospitals in Malaysia and Malaysia. According to research, Malaysian nurses realized more powerful and British norms more respected on their institutions. Nevertheless, British nurses' jobs were more employed than Larsen. It concludes that empowerment does not give the same results in all the countries and cultural differences should be done in the empowerment process.

Ning *et al.*, (2009) China's social norms found a social and significant positive relationship with the confidence and responsibility of their research in research. Abraiz *et al.*, (2012) investigated the research and development of four dimensions (sovereignty, responsibility, information, creation) between the satisfaction of job research in Pakistan's hospitals, hospitals, and educational institutions. They got a positive connection with the charity of the job satisfaction ability. But the relationship between satisfaction and self-determination is relatively high compared to other variables. Lautizi *et al.*, (2009) in relation to a survey of Italian nurseries, through the control of the control of the Controller, investigated the relationship between the contact organization and the work pressure between the convergence and the job satisfaction of the job. It has shown that there is a relative affinity between the construction of construction and power and the negative contact with the working pressure.

Pelit *et al.*, (2011) in this research, they have been moved to work in the 5-star hotels in Turkey, in the two parts, the idea of empowerment is behaviorally and psychologically. The results show that there is a significant impact on job satisfaction of psychological and behavioral empowerment. Choi *et al.*, (2016) in personal and public hospitals in Malaysia, understood in the research results, studying the fundamental contact between leadership, power, and job. Looking to find out that employee empowerment will not only increase the satisfaction of the job; it has also been shown that the relationship between the development leadership and the relationship between job satisfaction are related. In this study, teachers of the Early Schools of Israel, Bogler & Nir (2012) demonstrate that the authorized institutional organizations have a relationship between working and job satisfaction. Sarmiento *et al.*, (2004) has shown that high-level staff is a result of low and high-quality satisfaction in the study of nurses in Canada. Yang & Lee (2009) discovered that they were on Chinese, Chinese noses, especially with respect to the job with both the empowered and organizational affiliates. The work environment associated with a leader can affect the concept of security at the surroundings. A helpful leader, who reflects the worries and feelings of workers, gives them a positive return to voice their concerns and encourages jobs; develop employment skills and issues related to their work. They can resolve, self-determination, and increase their passion in their tasks (May *et al.*, 2004). Such people are engaging in their work (Ryan & Deci, 2001).

3 Problem Statement

Job satisfaction is very important in every organization, not only for employees but also for employers. Because if the employees are satisfied with their job they will work hard to achieve the organizational goals. In the education sector, the focus is not only on the girls and women as students but also as the members of the profession of education. A teacher is a role model for students and also for their communities. An Outstanding number of women in the profession of teaching incredibly are at higher levels of decision-making positions, and it can increase the ambition of girls and young women and positively impact the social perspectives towards women. So as the job satisfaction of teachers especially the female teachers is important in the colleges of Sindh. If the female teachers are empowered, they can provide quality education to their students in

the colleges and schools and can also give them awareness about education and other activities. The job satisfaction of female teachers with their profession is important because job satisfaction can make more loyal and dedicated to their responsibilities and their duties. Through empowerment, the teachers will feel more encouraged and they can take accountability for outcomes of results of their responsibilities and can make decisions by themselves and this leads to job satisfaction of them. This study has been designed with the motive to help the college education department of Sindh to formulate effective strategies for the development of female teachers at specific and overall development of Girls' Colleges with the help of satisfied and motivated female teachers.

3.1 Research Objectives

The research has designed the following research objectives for solving the research problem.

1. To determine the impact of leadership empowerment on work engagement.
2. To examine the impact of work engagement on job satisfaction.
3. To identify the impact of leadership empowerment on job satisfaction.

3.2 Research Questions

The study has addressed the following research questions:

1. How does leadership empowerment affect the work engagement?
2. What is the affect of work engagement on job satisfaction?
3. What is the relationship between leadership empowerment and job satisfaction?

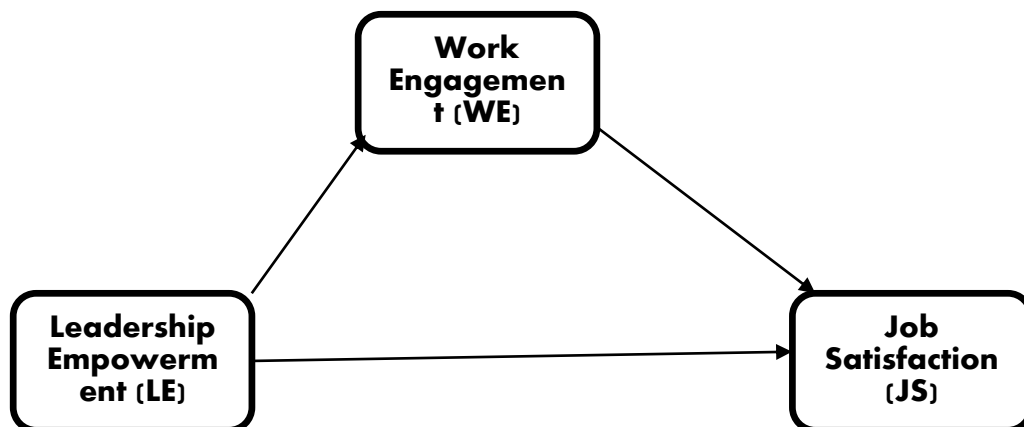
3.3 Research Hypotheses

H1: Leadership empowerment is significantly associated with work engagement.

H2: Work engagement is significantly associated with job satisfaction.

H3: Leadership empowerment is significantly associated with job satisfaction.

3.4 Research Model



4 Methodology

4.1 Sample

The data was collected in 2018 from the Girls Colleges' faculty members. Initially, the researcher had contacted with the office of the Regional Directorates of college education department. They further directed principals of respective colleges to coordinate with a researcher in fair data collection from female teachers during college working hours. The organizational structure of the college education department Government of Sindh is divided into six regions i-e: Karachi, Hyderabad, Mirpurkhas, Shaheed Benazirabad, Larkana, and Sukkur. Researcher has collected data from the female teachers working in Sukkur, Larkana, Hyderabad and Karachi regions while in Mirpurkhas and Shaheed Benazirabad, number of Girls Colleges with few female faculty members are there. Sukkur region holds the charge of Girls and Boys Degree Colleges of Ghotki with four Girls Degree Colleges, Khairpur Mirs with eight Girls Degree Colleges, and Sukkur with four Girls Degree Colleges. Larkana region holds the control of Boys & Girls Degree Colleges of Jacobabad with one Girls degree college, Kashmor Kandhkot with one Girls degree college, Larkana with six Girls degree colleges, Shikarpur with one Girls degree college and Qambar ShahdadKot with two Girls degree Colleges. Hyderabad region holds control of Badin with two Girls Colleges, Dadu with two Girls Degree Colleges, Hyderabad with eight Girls colleges, Jamshoro with three Girls Colleges, Matyari with two Girls Colleges, Sajawal with one Girls college, Tando Allahyar with one Girls college, Tando Muhammad Khan with one Girls colleges and Thatta with One Girls College. Karachi region with Karachi Central having eighteen Girls colleges, Karachi East with sixteen Girls Colleges, Korangi with twelve Girls Colleges, Malir with six Girls colleges, Karachi South with eleven Girls colleges, and Karachi West with ten Girls Degree Colleges. Mirpurkhas with Mirpurkhas district having three Girls Degree Colleges, Tharparkar with one Girls degree college and umerkot district with three Girls degree colleges. Shaheed Benazirabad region with Naushehro Feroz district having three Girls colleges, Sanghar with four Girls colleges and Shaheed Benazirabad with six Girls Colleges respectively.

There are total 29 districts with 327 Degree colleges from which 142 are Girls Degree Colleges. Questionnaires were distributed among female teachers personally with the good consent of principals and the respective female teachers who were willing to respond. Researcher has visited 60 colleges of Karachi region, 09 colleges of Larkana region, 16 colleges of Sukkur region and 17 colleges of Hyderabad region i-e: 102 total colleges for data collection. The study has utilized purposive judgmental sampling method to achieve desired responses from serious female teachers for giving their consent about this study. It is found to be confined sampling method to achieve desired response (Bougie, 2010). The response was collected from female teachers who have more than three years of teaching service as they can better respond about the desired inquiry. The study had spent about two months collecting the data from female teachers of four regions. A total of 450 questionnaires were distributed among female teachers from 360 questionnaires were returned back. About 40 questionnaires were discarded because of incomplete and biased filled. Finally, 360 questionnaires were incorporated for further analysis which represents 80% response only possible due to personal efforts of researcher.

5 Measurement

A total of 35 items questionnaire distributed adopted from prior literature recognized from (Konczak, et al., 2002). Schaufeli, Bakker and Salanova (2006), and Harter, Schmidt, Killham, & Asplund, 2006). The instrument was consist of three variables: leadership empowerment with 14 items taken from (Konczak, et al., 2002), work engagement with 9 items taken from Schaufeli, Bakker, and Salanova (2006), and job satisfaction with 12 items taken from “Harter, Schmidt, Killham, & Asplund, (2006) scale”. The response was measured on five-point Likert scale as 1=strongly disagree, 2=Disagree, 3=undecided, 4=Agree, 5=strongly agree. In the study leadership empowerment was the independent variable, work engagement as mediating variable and the job satisfaction as dependent variable was used. Furthermore, the reliability of all scales was assessed with Cronbach’s alpha greater than the 0.70. In addition to this questionnaire were include demographic information of respondents which also pertains to their job satisfaction and empowerment including age, marital status, designation and education.

5.1 Statistical Analysis

The present study has utilized SPSS 21 version for extracting descriptive statistics and Structural Equation Modeling (SEM) was used through smart PLS 3 for extracting inferential statistics. The path model was applied to measure the inner and outer model.

5.2 Descriptive Statistics

Demographic profile of the respondents was categorized into age, marital status as it stretches lot of affect on female teachers’ job performance and work life balance, education and designation. From the total 360 respondents, the 142 female teachers were between the age of 25 to 30 approximately at 39% of total respondents, 97 female teachers were between the age of 31 to 40 and 121 female teachers had age 41 and

above years. Regarding, marital status 138 were single and 222 were married. By education profile, 140 female teachers had post graduate degrees while 215 had masters and 5 teachers have bachelor (four Years) degrees. Designation wise majority of the female teachers were lecturers because of very slow and no any kind of proper service structure, 264 were lecturers, 44 were assistant professor, 45 were associate professors and only 7 were professors throughout all these four regions kept under consideration.

5.3 Measurement Model

The study has utilized Structural Equation Modeling (SEM) technique to measure the construct reliability, composite reliability, factor loadings, average variance extracted (AVE) also advocated to measure the convergent validity. To test the hypotheses and significance level, the nonparametric bootstrapping with 1000 replication was applied (Urbach, 2010). The results suggest that all the values of loadings have suppressed the cut-off values. The results shown in table 1, demonstrates that the value of Cronbach’s alpha and composite reliability for all factors is greater than the cut-off value of 0.70. The leadership empowerment bears greater value of reliability among other variables at 0.885 and 0.909 respectively while job satisfaction hold smaller value among other variables at 0.776 and 0.846 respectively. The factor loadings value for each item is greater than 0.70 except few as in leadership empowerment (LE) the items LE3, LE9 holds less than 0.70 which will be excluded in further analysis, WE4, WE8 hold less than 0.70 and in job satisfaction JS2 and JS9 holds loadings value less than 0.70 respectively. Initially leadership empowerment holds 14 items, work engagement holds 9 items and job satisfaction holds 12 items. During analysis few of their items were excluded because of low cut-off loadings value. The table values also demonstrate the existence of convergent validity with the value of average variance extracted (AVE) greater than the cut-off value of 0.50.

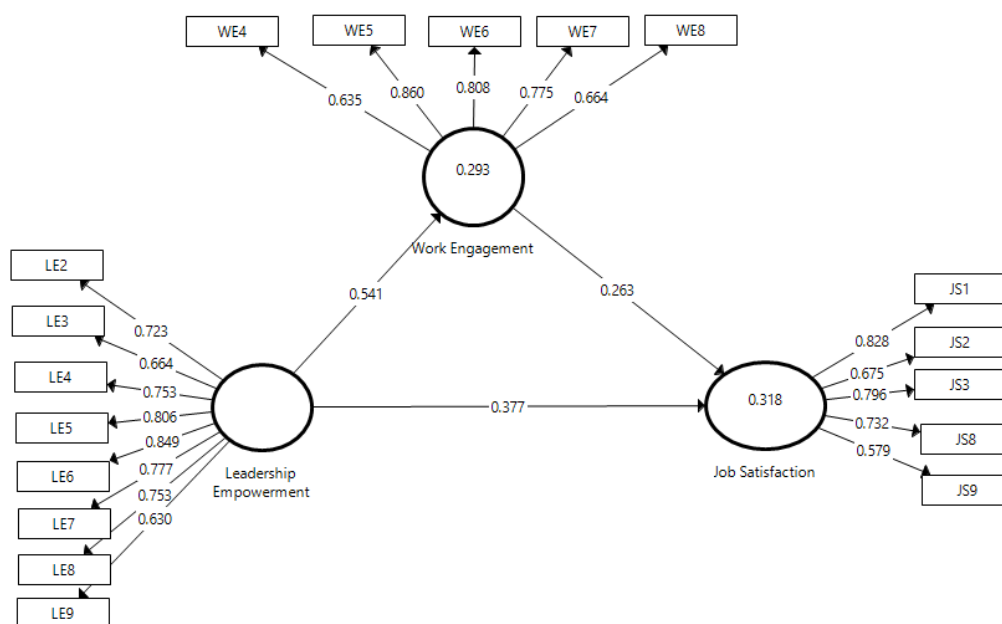
Table 1. Cronbach’s Alpha, Composite Reliability, Loadings, and Average Variance Extracted

Constructs	Items	Loadings	AVE	Cronbach’s Alpha	CR
Leadership Empowerment	LE2	0.723	0.559	0.885	0.909
	LE3	0.664			
	LE4	0.753			
	LE5	0.806			
	LE6	0.849			
	LE7	0.777			
	LE8	0.753			
	LE9	0.630			
	Work Engagement	WE4			
WE5		0.860			
WE6		0.808			

	WE7	0.775			
	WE8	0.664			
Job Satisfaction	JS1	0.828	0.529	0.776	0.847
	JS2	0.675			
	JS3	0.796			
	JS8	0.732			
	JS9	0.579			

5.4 PLS SEM Path Analysis

The results of Structural Equation Modeling (SEM) demonstrate that all the two dimensions: leadership empowerment and work engagement played positive and significant role to determine job satisfaction with (b=0.541*, b=0.263**, b=0.377***). Thus, all the hypotheses H1, H2, H3 found supported significantly with positive beta values. The results also show the fitness of model and help researcher to determine the prediction level of independent and mediating variable with respect to dependent variable. The LE has predicted WE at 0.293 (29.3%) and the work engagement has predicted job satisfaction at 0.318 (31.8%) R square value.



6 Discussion

The results of the present study are consistent with the Sonja de Klerk et al., (2014) and (Konczak, et al., 2002) while determining the relationship between leadership empowerment and work engagement, with the Daniel Moura et al., in determining the

relationship between work engagement and job satisfaction and with the Joan Davis & Sandra M. Wilson (2010) in determining the relationship between leadership empowerment and job satisfaction. In addition to this, the results show that the leadership empowerment has positive and significant impact on work engagement, work engagement has positive and significant relationship with job satisfaction and leadership empowerment has also independent ability to affect job satisfaction positively and significantly.

The study has also confirmed that the leadership empowerment and work engagement has ability to contribute 29% to 31% in female teachers job satisfaction as they feel empowered in sense of authority, well communicated organizational strategies, accountable for failure, skills development through timely and needed trainings, having authority of making self-decisions. In addition to this, the work engagement also found supportive for female teachers job satisfaction as it holds ability to engage female teachers with job performance and retention of talent for organizations. The leadership empowerment found involved in job satisfaction directly and indirectly. The results of path analysis has confirmed the hypotheses with positive beta values and all three hypotheses found supported in alignment for achieving research objectives and to better address the research questions.

6.1 Theoretical Implications

This study has posed two basic implications in the sense of empowerment, organizational behavior and job outcome i-e: the leadership empowerment found strong predictor of work engagement and job satisfaction, and the work engagement found mediator between empowerment and job outcome. The female teachers with high sense of empowered as leader found more engaged toward their job performance and found satisfied. Thus, this work has confirmed the implications proposed by Simon L. Albrecht et al., (2010). The employees with high authority, self determination, well equipped with organizational structure and policies will have better perception of engagement and job performance (Yan et al., 2018).

6.2 Managerial Implications

The results of this study provide useful information to college education department Government of Sindh for improving female teachers' job satisfaction through leadership empowerment and work engagement. The department has to develop goals, lines of authority, task and responsibilities and should be well communicated to the female teachers. Female teachers should be kept aware of their tasks and responsibilities. Department should take steps to reduce ambiguity among female teachers regarding empowerment. To fulfill empowerment process a participative environment should be developed, and information about organization's vision, mission, goals, performance objectives, quality education, and work performance productivity should be communicated properly to female teachers. College Education department of Sindh should facilitate the empowerment culture by updating policies and practices with the hope that the female incubation will work for the collective development at all aspects. Only female teachers should be appointed as Principals in

Government Girls Colleges of Sindh as it was observed that in few Girls Colleges male teachers has been appointed as Principals. A job oriented service structure should be formulated for promoting the female teachers as it has been observed that there is no fixed time duration to get promoted to next higher grades as it was reported that almost ten to fifteen years have been passed not to get a single promotion to next higher grade. Principals should interact with female teachers on a routine basis as their leadership skills help female teachers to empower themselves and engage them in work activities other than teaching as well.

7 Conclusion

This study has proposed use of leadership empowerment has means of female teachers' job satisfaction and the use of work engagement as an instrument to support the administration to effectively motivate the female teachers being empowered and engaged. Thus, the study has confirmed the impact of leadership empowerment on work engagement, impact of work engagement on job satisfaction and the impact of leadership empowerment on job satisfaction positively and significantly. All the proposed hypotheses found supported with statistical results and hence the study has achieved its objectives and being found able to answer the research questions. Overall, the study found that the empirical effect of leadership empowerment and work engagement on job satisfaction of female teachers. In turn, thus state of job satisfaction among female teachers increases the sense of being engaged and motivated towards organizational success. Though during organizational changes female teachers found them motivated and well empowered, in achieving challenging work activities as well.

The study proposed possible solutions of problems faced by principals, administration of colleges of motivate and engage female teachers to perform well for achieving the desired objectives. Female teachers also feel engaged with organization physically, cognitively and emotionally for better results in given competitive environment. It is utmost wish of organizations to hold the employees engage and motivated towards organizational success.

7.1 Limitations

Study has figured out the impact of leadership empowerment and work engagement on job satisfaction but still further investigation is also needed to enhance the level of understanding of these factors contributing in job satisfaction level. The study has utilized these variables as one-dimensional construct. The study has utilized cross-sectional research design that limits the cause and effect relationship. The study has focused only education department and Girls Colleges of Sindh that limits the general ability of results in other service sectors or in other educational institutes. Study has only focused single factor of empowerment, organizational behavior, and employee behavior and job outcome. The data was only collected from employees (female teachers), employers were ignored in data collection process. The study was carried down by utilizing quantitative research methods for data collection and analysis.

7.2 Future Directions

Future researchers may enhance the level of understanding by studying other constructs in field of empowerment, organizational, employee behavior and job outcomes. Future studies may be conducted to further explore the leadership empowerment with its sub variables, work engagement with sub variables and job satisfaction with other job outcomes. Future researcher may use work engagement not only as mediator but also as moderator for expanded cause and effect relationship. The future research may be carried forward to focus the other empowerment factors as psychological or structural empowerment, and other work related constructs as job performance, job turnover etc. Future researchers may use mix method approach. Future researcher may expand the level of respondents from Girls Colleges to female teachers of higher educational institutes working in Sindh as to prevent from bias of generalizations of results for all educational institutes. Both forces of organizational setting i-e: employers and employees should be kept under consideration for data collection.

Author Contributions

Dr Benazir Solangi: The main idea of research paper is contributed by first author and she has written the introduction, literature review and conceptual framework was designed by her.

Dr Muhammad Salih Memon: The second author of research paper has analyzed the data by using smart PLS, and has also contributed in interpreting of results.

Muhammad Asif Channa: The third author of paper has collected data from respondents, prepared data set and contributed in writing the conclusion, discussion section of research paper.

Data Availability Statement

Yes, Collected data is available in the shape of data set.

Conflict of Interest:

There is no any conflict of interest

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Are Pakistani Business Schools Fulfilling the Requirements of Pakistan's Growing IT Industry?

Sarwat Nauman¹, Shagufta Ghauri¹

Abstract

Nation-wide surveys often specify that businesses are facing difficulties in finding employees with the required skills. Distress related to the alignment amid skills supply and demand offers significant drivers both for the development of employability and for the reform in higher education. IT industry in Pakistan with its expanding nature, has been neglected. This study intends to develop our understanding by examining the required employability skills by IT industry and whether business schools are fulfilling the employability skill gap? To address this knowledge gap, we conducted a qualitative research design of semi-structured interviews of 15 HR managers (n=15) from the top IT firms of Pakistan, based on a purposive sampling method during the time frame of July to September 2019. Thematic analysis was used to generate themes. Consistent with the research questions, our results show those high-ranked business schools of Pakistan are satisfying the need of the industry and the students have an edge over foreign qualified students. Our data further established that interpersonal communication skills and lifelong learning skills are the most significant skills for employability. To the best of the researchers' knowledge, this research has been one of the first attempts to examine the employability requirements of IT industry and are the Business schools fulfilling the requirements and offer numerous theoretical and managerial implications besides future prospects for research scholars.

Keywords: *business schools; communication skills; employability; human resource man agent; lifelong learning skills; IT industry; job market*

JEL Code: M54, J19

1 Introduction

The technological experiences and practices have led societies to become global and multicultural, changing the world of employment dramatically. The main goal of education systems has now become to inculcate employability skills in its graduates. In this challenging and dynamic environment, the responsibility of higher education institutions is not only to produce graduates with an explicit area of specialization, but importantly there is a need to develop graduate employability skills that match the industry requirements (Sarkar et al. 2020; Clagett, 1997; De Vos, Dewettinck, & Buyens, 2008; Schlinger, 2015). This puts business schools under extreme pressure from all stakeholders, especially industry, to equip graduates not only with the academic skills but also with skills that go beyond academics (Gunagle et al. 2020; Little, 2011). This concern has been investigated by researchers, in which the ineffectiveness of the present educational system to equip business school graduates with relevant

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employability skills has been highlighted (Gilal et al., 2019; Zaharim et al., 2009; Nauman & Nasreen, 2017; Saad & Majid, 2014). Business school students are studying in more advanced countries in order to embrace the challenges of the competitive knowledge-based economy; (Ayala et al. 2020; De Vos, Dewettinck, & Buyens, 2008) therefore, it becomes necessary to train and educate students to develop global skills to decipher into the transferability of qualifications such that, skills which are obtained in one country should be able to host another country.

Today's employees must possess non-technical or soft skills along with technical skills (Clagett, 1997; Schlinger, 2015) as a workforce with only technical skills will not be able to function effectively in today's globalized economy which consequently will lead to skills gap (Shah & Burke, 2005). Soft skills comprise of communication skills, interpersonal skills, creativity, leadership skills, ability to work in a team, and problem-solving skills (Joseph, Chang & Slaughter, 2010; Imel, 1999). According to Helmlinger (2007), "90% of job failure is to be traced to a disparity of soft skills/personality, motivators/attitudes, and work habits" (p.4).

The case of business school graduates is different from that of other discipline graduates because business schools must host all industries; this implies that business school graduates must possess skills that are generic in nature and are required across industries. Amongst these industries, IT industry is one of the most rapidly growing industries of Pakistan which is highly technical in nature but also in need of business school graduates for departments such as marketing, sales, and human resource. During 2016-17, Pakistan's IT exports were \$3.3 billion, which increased to \$5 billion in 2017-18 and are expected to rise to \$6 billion in 2018-2019 (Hanif, 2018).

The IT industry in Pakistan requires business graduates for its public and global dealing therefore, these graduates must have strong communication and soft skills. Even with its expanding nature, IT industry in Pakistan has been neglected by the researchers and no research has been conducted to understand the needs of this industry with regards to the required employability skills in business school graduates.

It has been observed that developed countries' policymakers are encouraging closer university-business collaboration which has also been endorsed by HEC and NBEAC, this will be providing a promising solution for skill deficits. The key stakeholders such as curriculum developers, policymakers, business educators, graduates, and HEIs can use this research study in their pursuit of augmenting employability. This research makes both managerial and theoretical contributions. The managerial involvement comes from the data collected from the HR managers of the IT industry that provided a deeper understanding of the most needed skills, business schools readiness, and the biases towards Pakistani business schools and low ranked business schools which was previously neglected. The theoretical contribution is towards the employability with business school literature, but the findings are also relevant to a vast graduate employability arena (Ayala et al. 2020). There should be a strategy-led curriculum that gives business graduates hands-on experiences that enhances their lifelong learning skills. The government should provide subsidy mechanism to carry out intensive research. Employability skills should be a universities strategic vision and incorporated

in their strategic planning of the curricula. Enhancement of communication skills, lifelong learning skills that can be termed as employability skills should be incorporated in HEIs strategic level planning. HEC should intervene in the curriculum development of low-ranked universities and need to identify the areas that need to be reworked in order to give an advantage to the students who have graduated from these universities. Selective perception of the employers should be enhanced by creating a transparent curriculum that can be beneficial for both privileged and underprivileged graduates. Faculty should be encouraged that the above-stated objectives are agreed with broader life skills and supportive academic capacity (Sarkar et al.2020). There should be transparent and honest communication amid employers and university representatives to update their curricula with the contemporary insights from employers on constant basis to integrate the essential changes required.

The study provides an interesting avenue to understand and gauge the requirement of employers towards Pakistani business school graduates' employability skills, in the Pakistani IT industry. This research study answered the following two research questions:

1. To what extent are the Pakistani business schools satisfying the needs of the Pakistani IT industry?
2. What employability skills are required by the IT industry in the Pakistan?

2 Literature Review

2.1 Provision of employability skills by business school

Today's job market is more complex than it was ever before as there is very little conformity in the working of various organizations which leads to divergent practices and accelerated change in today's market (Araya & McGowan, 2016) therefore, companies are looking for managers who can embrace diversity and work in and with diverse environments (Gardiner & Lacy, 2005). Even though such a flux creates a problem for educational institutes as it becomes difficult for them to keep abreast with the latest trends and practices; nevertheless, there should be a strengthened connection of higher education with industry to make sure that graduates understand the job market condition and develop employability skills needed by the employer (Connor & Shaw, 2008). There is a prevalent complex relationship among graduates, institutions and employers which is reliant on how engaged graduates are with opportunities for enhancing their employability (Harvey, 2005) as employers rely on business schools for recruitment because business school graduates are promised to have certain skills that the recruiters are looking for (David & David, 2011). Hence, higher education systems should provide guidance to their graduates by developing significant workplace attitudes, knowledge, and skills that employers cherish (Gunagle et al. 2020).

It has become a common trend in Pakistan that students go to advanced countries for their higher education in hope to receive better academic, technical, and skill-related knowledge. The problem with foreign qualified MBA's is that first, they do not want to come back to Pakistan after obtaining their degree, and second, many MBA's who have stayed abroad for a long duration are not in sync with the typical Pakistani market

problems and environment (Bokhari, 2014). The graduate's readiness to contribute pragmatic knowledge to the industry by understanding its attitude and skills is necessary (Zahid, Hooley & Neary, 2020; Araya, & McGowan, 2016; Litecky, Arnett, & Prabhakar, 2004).

The world has seen a major shift from product industries towards service industries which have necessitated various changes in the requirement of employability skills (Mcquaid & Lindsay, 2005). Career patterns in developed countries are becoming less traditional as individuals have taken increased responsibility to self-manage their careers (Clarke, 2009). Soft skills like interpersonal and leadership skills and personal attributes are important for employment along with technical and formal vocational skills (Gilal et al., 2019) but Pakistani business school graduates are found to be deficient of these skills (Nauman & Hussain, 2017). The responsibility of having and sustaining up to date workforce does not only lie with the educational institutes but also with various organizations and with the employees themselves as well. However dynamic the job market may be, business schools are expected to fulfill its requirements, "Through continuous interaction with the service industry the business schools are able to introduce new courses and revamp the old ones. This needs to be a continuously ongoing process," (Nauman & Hussain, 2017, p. 2).

2.2 Employability skills required by IT industry

Education is viewed as the primary means of developing skills and knowledge; therefore, education is an important element of the human capital (Crocker, 2006). The higher education is responsible to yield human capital by training such a labor force that is skilled and responds to the ever-changing needs of the labor market (Lauder & Mayhew, 2020). In fact, Crocker (2006), states that education can also be seen as a screening device that employers use to select employees that have the required abilities; therefore, education helps students to be employable. The IT industry requires human capital that is nurtured in a competitive education system that is well prepared for creative work environments (Agolla, 2018). Thus, a higher education system can only be called effective if it gives equal importance to all factors that add to human capital (scholars, higher education managers, educators, academics, students, etc.) whereas the overall effectiveness of an education system is based on the human competencies that it develops in potential IT industry employees (Agolla, 2018). One way to generate the required human capital is to link HEIs with industry together for students' project-based learning or internships as it not only provides knowledge that is relevant but also the practical skills needed for employment and (Budrin et al., 2020; Garcia-Alvarez-Coque, et al., 2021).

Pakistan's IT sector is growing exponentially with yearly 20% growth (Hanif, 2017). There are around 10,000 IT graduates who annually enter the Pakistani IT job market, (Hanif, 2018) yet; there are no censuses that tell us the number of business graduates entering the IT industry. The IT industry is no different than any other as there is a wide range of empirical evidence indicating that employers in the IT industry are also looking to hire graduates that have technical and non-generic skills (DiDomenico &

Pueblo, 2010; Litecky, Arnett & Prabhakar, 2004; Saad & Majid, 2014). Thus, even though technical skills are highly required among graduates working in IT industry, the employers also demand soft skills from their employees (Ayala et al.2020; Saad & Majid, 2014) that would help their company to market and sell items created by the technically strong individuals.

The IT industry, like other industries, worldwide is need of individuals that possess both the technical and the soft skills; yet, it becomes difficult to find such individuals as the technical higher educational institutes mainly focus upon the technical knowledge of the graduates, leaving a gap in the area of soft skills (Litecky, Arnett & Prabhakar, 2004). Ideally, the curriculum should create opportunities for students to become exposed to self-directed learning philosophies, attributes, and skills (Sarkar et al.2020; Saad & Majid, 2014) but it is a matter of fact that due to this gap in the technical higher educational institutes, the IT industry for its public and global dealing cannot rely upon their technical team and needs business school graduates to conduct business locally and globally.

3 Research Method

3.1 Research Design

To understand how business schools are fulfilling the requirements of the Pakistani IT industry, a qualitative research design of semi-structured interviews was used. Interviews help researchers to understand and discover the viewpoints and perceptions of the interviewee, keeping in mind the experience of the interviewee with the topic at hand (Frost, 2011; Hollway & Jefferson, 2000; Ritchie & Lewis, 2003) and thus many new areas of investigation emerge from these interviews (Bryman, 2012; Jackson & Trochim, 2002). Keeping in mind the benefits of semi-structured interviews a semi-structured interview questionnaire was developed with open-ended questions.

3.2 Procedure

After the participants were identified and their consent to give an interview was obtained, semi-structured interviews were conducted which consisted of a duration of 30-40 minutes each. The data was collected through audio recordings were first transcribed and then manually coded in order to generate themes (Hammond & Wellington, 2013). The codes that originate from coding were then used by the researchers to make connections between them, developing a certain pattern (Smith & Osborn, 2015), in this manner theme statements were developed.

3.3 Participants

Purposive sampling was conducted in order to fulfill the research purpose where the researcher locates such people who can give him/her the required information (Frost, 2011; Johnson & Christensen, 2004; Tongco, 2007). Purposive sampling is used in a qualitative research to reach respondents who have the knowledge to address the phenomenon that the researcher is looking into. The researchers contacted 18 HR managers and 15 showed their willingness to be interviewed, whereas three excused themselves due to the workload at their organization.

3.4 Context

To understand the real-world problems, qualitative researchers consider the natural contexts in which individuals or groups function (Korstjens, & Moser, 2017). In this study, the contexts were IT firms that were recruiting business school graduates to market their products or manage their financial and HR departments. The HR departments of these firms were reached and their HR managers were asked to give interviews keeping in view that they are responsible for recruiting candidates.

4 Results

The IT firms recruited individuals using the following steps: a) initial scan of the CV; b) a written test to gauge candidate's basic knowledge and IQ; 3) face-to-face interviews. It was noted that all IT firm HR managers had similar viewpoints regarding the employability skills needed at an IT firm and the data collected could be divided into four themes: Communication skills; lifelong learning skills; the difference between foreign and local business schools and improvements needed in Pakistani business schools.

4.1 Communication skills

Communication skills were one of the most valued skills by the IT firm HR managers, it seemed that their core focus was upon how well the business graduates could communicate. Some of the statements of the IT firm HR managers are given below:

“For our company, the interpersonal communication skills are very important because we know we can work smoothly if these communication skills of our employees are at their best.”

“Communication skills are very important for hiring as well as for promotion in our company.”

“Communication skills are at the top of the list of attributes that we are looking for in fresh graduates.” She continued to say, “The Company has a rating system in place which measures the performance of the employees regarding their communication skills, human skills, and creativity.”

“Communication skills are a must in our organization because and it is also the need of the hour for every other organization in the country and especially in our company because business graduates in our organization are continuously in business of communication with our customers.”

“Sometimes we get candidates that are good in technical skills but lack communication skills, we hire them for the technical side but for our marketing and HR side, communication skills cannot be ignored.”

The IT firm HR managers considered that communication skills were important for all their employees but these were more important for BBA's and MBA's as they were directly involved with people inside and outside the organization, as one IT firm HR

manager elaborated that “there is networking involved at all levels,” therefore it becomes incumbent for business school graduates to be good at interpersonal communication skills.

4.2 Lifelong learning skills

Even though the IT firm HR managers never used the word lifelong learning, yet the attributes that they wanted in their young employees were directed towards the employees having lifelong learning skills. These attributes included self-learning, self-development, self-motivation, flexibility, and adaptability. All these attributes are a part and parcel of lifelong learning skills. Thus, statements like the following were heard:

“They need to be adaptable, flexible, and eager to learn and put in some extra hours in their learning.”

“Graduates should be more adaptable and work efficiently in diverse environments.”

“A person’s adaptability and ability to learn are the attributes that any organization be it a local organization or an MNC, look forward to when they are hiring graduates.”

“What we want in business graduates is that they are adaptable and are able to implement change.”

“They should possess the ability to think ahead; the futuristic approach is very important because they will be given teams to lead as they progress in their career.”

“An ideal candidate is one who is academically well-rounded, self-driven and ambitious; they should have an eagerness to learn and grow from their learning.”

There were different ways through which these trainings were conducted as explained in some of the statements below:

“We hire interns and during their internship and we give them trainings where they understand how our company works.”

“We hire management trainees but not for a specific department; instead the individual is made to switch between all departments, regardless of their major. When the training period is over, the individual is asked to choose the department one wants to work in. If we have a vacancy in that department, we put them there, and if not then they have to go to the department that has the vacancy.”

“We hire management trainees and then give them training for three months in which we also evaluate if the person is capable of taking initiative and becoming a leader or not. We put extra effort to train them according to our requirements.”

“We have to work with the interns very closely so that they can easily assume responsibility once their internship period or you can say training period is over.”

4.3 Difference between foreign and local business schools

Even though Grant Thornton Consulting (2016) report elaborated that most of the organizations in Pakistan like to hire foreign educated employees due to a lack of quality

human resource in Pakistan, it was surprising to note that IT firms HR managers did not see much difference between the candidates of foreign business schools and high ranking Pakistani business schools. They elaborated that the communication and lifelong learning skills were better in graduates qualified from both the foreign schools and high ranking Pakistani business schools but the students from Pakistani business schools had an edge over the foreign qualified students as they were well aware of the Pakistani business culture and had better knowledge of the Pakistani market.

“Communication is an important factor. Most of the graduates if we compare them to international or local in terms of general attributes, they are equal but they (those from foreign qualified and high ranking Pakistani business schools) are better at communication and how they present themselves. These graduates really stand out mainly because of the fact that they are very good at presenting themselves which the foreign business schools are also focused at. What is the main thing that an MNC needs? It needs its workers to be really polished in their way of speaking and presenting.”

“Some of the top business school graduates have good analytical skills and their understanding of our local culture and market knowledge makes them better than foreign graduates, which acts as a strong point against those who are graduated from foreign business schools.”

“There is a difference in pay in international and graduates from highly ranked universities and other university candidates is that these candidates do not know the application of theory and international candidates’ and candidates from good universities’ interaction with the practical world is more and they know how to apply their knowledge.”

There were also IT firms that did not consider the ranking of a business school while inducting an employee and were more focused upon the candidate. This policy gave equal chance to all business school graduates irrespective of their academic institution.

“We are not university bias, we provide equal opportunity to everyone as far as they have what is required for the job, even though we have seen that graduates from high ranking business schools have good communication skills and their personality makes them stand out from the rest.”

Ironically, the IT firm HR manager on one side claimed that the firm is not university bias and on the other hand could not stop herself from saying that graduates from high ranking universities have good communication skills and personality. It may seem like a paradox but it seems that she has explained the company policy in first half of her sentence and in the second half she has explained her own observation.

“We have a strict no discrimination hiring policy which means that we go to great lengths to ensure that applicants are hired on the basis of merit rather than the university they hail from.”

“You might have degree from whatever institution but you must have your feet firmly fixed to the ground.”

“Both internationally ranked and locally ranked graduates are given the same remuneration according to the position that they are hired for.”

But the overall discussion reflect a discontent of IT firm HR managers with the graduates from Pakistani low ranking schools as they felt that even if these graduates were hard working, they lacked in communication and lifelong learning skills considerably and their basic knowledge was lacking due to which they needed to be more supervised and took considerable amount of time to polish or develop the required skills. There was one IT firm HR manager who said that their firm did not induct anyone from low ranking business school because they did not have the skillset required by their company.

IT firm HR managers also said that the basic difference between those graduated from foreign and high ranking institutes of Pakistan and those from low ranking business schools of Pakistan is that the former are well equipped with research skills which comes in domain of lifelong learning skills, whereas the later are in want of these skills. Another IT firm HR manager added that their firm prefers MBA's rather than BBA's because the MBA students study through a curriculum that is more research based as compared to the BBA students. While talking about the upgradation of Pakistani business schools, seven of the IT firm HR managers were of the opinion that there should be modules that involve research.

4.4 Improvements needed in Pakistani business schools

Like elsewhere in the world, in Pakistan also IT firm HR managers felt that currently there was disconnect between the business schools and the industry. They felt that the business schools only focused upon delivering the bookish knowledge to the students. Hence, statements like the ones given below were heard during the interviews:

“There is a gap between the industry and what is being taught at the universities.”

“Their studies should be related to the practice as studying a theory in isolation is different and to see it come to life is different as there may be many factors playing their part.”

“Curriculum has use of international books that is the main reason why the students cannot relate their learning with the industry.”

“They should make them more familiarized with the local practices rather than making them read books.”

“A more holistic approach should be adopted by the universities....for example those students who need to do their major in marketing should not be blind towards concepts of finance and HR.”

According to the IT firm HR managers the major difference between high ranking universities and low ranking universities is in the communication skills of their graduates. Thus an IT firm HR manager remarked:

“We prefer students from high ranking universities mainly due to their interpersonal communication skills.”

Another IT firm HR manager was of the view that “because they (graduates from low ranking business schools) lack in interpersonal communication skills, it may seem at times that they are not interested in their work”

They were also of the view that if Pakistani business schools want to compete with the international business schools then they must make sure that their students are good in interpersonal communication skills. The IT firm HR managers wanted the business schools to offer their students learning which was beyond the bookish knowledge. They wanted the business schools to teach skills that would help their graduates to adapt to latest trends in business and be able to absorb any new useful knowledge that they come across.

Secondly, they add that the business schools teach various subjects in isolation and as if they were independent of one another. The reality is that all these fields are inter-related in an organization and a mess caused by one directly affects the other. Thus, the students are unable to link together the various disciplines that they have studied in silos.

5 Discussion

Interpersonal communication skills are the lifeline of an organization and a must have skill as managers spend 60 % to 80% of their on-job time communicating at all levels (Raina, 2010). Communication skills are transferable skills, skills that you can use in any specialty and are useful in all business arenas therefore, like other industries, that IT industry also valued interpersonal communication skills (Brooks, 2013). Even at companies with highly technologically advanced environment social skills are of utmost importance mainly because computers cannot stimulate human interaction which involves reading other peoples’ minds and responding appropriately and team productions where workers use one another’s strengths and adapt according to the requirements of the circumstances (Sarkar et al. 2020; Brooks, 2013; Deming, 2015). Considering the digital marketing, the most vital skills that are required are the digital marketing skills and communication skills for business success (Royle & Laing, 2014).

It came out as an important suggestion that if Pakistani business schools want to improve themselves then they must focus upon the communication skills of their graduates. Lolli (2013) highlights the fact that the academia does not give same importance to the communication skills as they are given by the industry; whereas, in the market, workers with higher social skills earn relatively higher wage (Deming, 2015). First, these skills are not taught to the students effectively as much focus is on descriptive written answers and second, there is a lack in general consensus about how these skills should be taught (Gilal et al.2020). Same dilemma exists in Pakistan where teachers approach business communication, which is a practical subject, in a theoretical manner - such that teachers are found teaching the history of business communication rather than its practical use (Ayala et al.2020; Fatima, 2010). Saleem (2011) cited the success of teaching through experiential learning in a Pakistani business school

whereas, Saldivar (2015) has proposed team-based learning as an effective pedagogy to boost interpersonal skills in students as they have to convey their ideas, persuade others and make fruitful debates in order to work in a team. Non-stop authoritative monologue by a teacher hardly helps a teacher in achieving his/her aim (Gunagle et al.2020; Abdulaziz, Shah, Mahmood, & Fazl-e-Haq, 2012; Fatima, 2010; Saleem, 2011). It is high time that the academia realizes the importance of communication skills and report best practices through which best results regarding teaching and learning of communication skills can be achieved.

According to Saad and Majid (2014) the Pakistani IT industry is looking for individuals that have lifelong learning skills as these skills help organizations to grow. Since lifelong learning skills have been neglected in the technical institutes (DiDomenico & Pueblo, 2010) therefore, IT companies are now looking towards business schools to fulfil this requirement. But unfortunately, there is a discontent in the Pakistani leading thinkers and business men regarding the business education provided by the business schools of the country (Aziz et al., 2014; Abbasi, 2016; Hoodbhoy, 2016) who believe that the HEC marking scheme misses out upon the deliverance of employability skills by business schools but ironically, there is no input from the industry (Sarkar et al. 2020; Abbasi, 2016; Hoodbhoy, 2016). The companies gave trainings to the new inductees in order for them to overcome the gap that existed in their knowledge and the industry requirement. Even though the employers blame business schools for the lack of employability skills in the business graduates, yet it must be kept in mind that it is the responsibility of the employers to improve the transferable skills through on-going training programs (Selvadurai, Choy, & Maros, 2012). In this study, it seemed that the on-going trainings were very technical in nature and were only suitable for IT graduates whereas employees who were business school graduates were only given the initial trainings and not on-going trainings.

When making comparisons between the various business schools, it must be kept in mind that the high ranking Ivy League business schools are usually the first ones to make a certain change in their curriculum and then the rest of the schools follow (Marques, 2013); these changes in curriculum are first adopted by high ranking and then by low ranking business schools of Pakistan. Also, finances are said to be one of the major contributors in making an improvement in the higher education system (Bhanbhro, 2015); yet, the government budget for education in 2017 is Rs 90.5 billion which is very low (Yamin, 2017) especially for a country low in human development. With such low expenditure on education there will not be uniformity across educational institutions with regards to making and delivering of the curriculum.

It is a fact that Pakistan as a nation has its own set of problems which may be psycho-social, medical, environmental or business that need to be resolved through the research done in Pakistan (Gilal et al.2020; Sabzwari, Kauser, & Khuwaja, 2009) as is the case in more developed countries where research is conducted to solve not only the local and national issues but also, for the improvement of economic competitiveness to the region through the transfer of knowledge to local businesses (Ayala et al. 2020; Hoodbhoy, 2009; Tarar, 2006). This can be achieved through applied research projects that would

help resolve local and national problems by establishing a more sustainable link with the industry (Grant Thornton Consulting, 2016).

Despite the documented need of a gap in business school studies and the industry, the lack of a framework to bridge the gap between theory and practice continues to be felt. Mitroff, Alpaslan, and O'Connor (2015) believe that the business schools of today have outgrown their foundation and they are now working in a much more complex world than what it was when they initially started their practice. They point out that this is responsible for the existing gap in the employability skills that are required by the industry and what the business schools are providing to them. Business school faculty is becoming increasingly disjointed from the industry; hence, unlike faculties of law schools, medicine, and engineering, they seldom practice what they teach (Ayala et al. 2020; Dostaler & Tomberlin, 2013; Mitroff, Alpaslan & O'Connor, 2015). Business schools when hire scientists from their specialized fields take the business school away from reality (Mitroff, Alpaslan, & O'Connor, 2015). Thus, Dostaler and Tomberlin, (2013) propose that just like in other professional universities, the business school teachers should be given time between their teaching practices and use sabbaticals as opportunities to assume roles in business organizations, this would give academic practitioners not only practical knowledge of the industry but also help them conduct researches in areas that are needed by the industry.

Mitroff, Alpaslan, and O'Connor, (2015) are of the view that business schools should start focusing upon crisis management as a subject as a part of their curriculum. They explain that organizations that prepare themselves for a crisis experience fewer crises and are able to come out of them more rapidly. On the other hand, keeping in mind the Pakistani scenario, Nauman and Hussain (2017) suggest that business schools are currently are working in isolation, they, through continuous feedback from the industry need to re-vamp their courses according to the needs of the industry. There will remain a level of dissatisfaction in the IT industry with the employability skills provided by the Pakistani business schools until and unless these business schools realize the importance of taking into consideration the needs of industries that they cater to.

5.1 Theoretical implications

It can be said that the HEIs of Pakistan are generally producing the human capital required for the IT sector; nevertheless, it was interesting to note that the inefficiency to generate the required human capital by the low ranking HEIs was highlighted by the HR managers. Since it is crucial to link industry with the HEIs for the generation of human capital; we see the same thought running in this study. The HR managers preferred graduates from high-ranking HEIs as compared to the graduates from developed countries as they felt that graduates from Pakistan better understood the industry environment as they had been a part of the system.

5.2 Practical Implication

Deliberations regarding the skill shortage complaints from the employer has been witnessed for years and had been highlighted in the literature review section. In the existing times, it has been observed that policymakers in the industrialized countries are

encouraging close collaboration amid universities and businesses and this can likely be a solution for skill deficiencies. Conversely, employer criticism persists. Without having a complete understanding of the stakeholder's viewpoint, we can't establish a concrete viewpoint. The employers should play an active role and should provide added work experience prospects which is a significant factor for the enhancement of skills, they need to initiate this as it will benefit all the stakeholders. It can be suggested to the employers to ascertain ineffectual employment practices that are causing interference in the way of business graduates to showcase their required skills. HEIs and employers need to promote and expand opportunities with the facility of placements, work-based learning, and internship prospects of a substantial period. These experiential learning projects will significantly impact the business graduate's perception of required skills, awareness about the employer's culture, and knowledge of work. This will also be a sustainable and equitable partnership between HEIs and employers.

6 Conclusions and recommendations

It can be concluded that the most important and sought-after employability skills by IT firm HR managers are interpersonal communication skills and lifelong learning skills. It was surprising to note that even though IT firms realized the high standard of foreign universities they felt that graduates from high-ranking Pakistani universities were a better option for them as they understood the dynamics of the Pakistani market. Even though all firms were dissatisfied by low-ranking business schools, there were still those that gave equal opportunity to all business school graduates and gauged them in isolation regardless of their business school.

This criticism led Pakistan's Higher Education Commission to publish the Employers Perception Survey 2016 conducted by an independent body, Grant Thornton Consulting. The reason for conducting this survey was "to determine their (employers') perceptions of the quality and capability of graduate employees that have been added in the workforce from various HEIs in Pakistan" (Grant Thornton Consulting, 2016, p.2). The report elaborated that most of the organizations in Pakistan like to hire foreign-educated employees due to a lack of quality human resources in Pakistan.

The report also highlighted that one of the most wanting skills in the graduates was business communication skills amongst analytical and critical thinking skills. It is further elaborated that communication skills were mostly required by employers of business school graduates than any other graduates. Employers felt need to increase collaboration with Higher Education Institutes; thus the report proposed, "A proactive and collaborative effort will be required by employers, HEIs and HEC to make progress on these fronts" (Grant Thornton Consulting, 2016, p.4).

Key recommendations of this study include the need for Pakistani HEIs to improve their assessment methods to more practical and hands-on assessment, which can actually test the competence and capacity of the student in addition to theoretical knowledge. This approach will also inculcate the habit of research and inquisitiveness in students who would focus more on the next phase, which is the application of knowledge. This will also address the issue raised by a majority of employers regarding their lack of satisfaction in some graduate skills that are important for them such as critical thinking,

analytical approach, self-initiative, and effective interpersonal communication. On the other hand, Ahmed (2012) holds the view that the instructors of business communication should not mimic the rest of the world rather they shall adopt and contextualize the published material.

Nauman and Hussain (2017) stress that organizations feel that they are not being provided with the human resource required to run their businesses thus creating a gap between needs and the demands. One way this can be done through deploying faculty for some period in an organization on a particular post where they can interact with the employers and the employees to understand what employability skills are needed by the industry.

Business schools worldwide follow some Performance Management System (PMS). Some systems are international such as EQUIS (The European Quality Improvement System); AACSB (The Association to Advance Collegiate Schools of Business); and ABEST21 (The Alliance on Business Education and Scholarship for Tomorrow a 21st-century organization); whereas there are systems that cater to national needs such as Indonesia's BAN-PT (Badan Akreditasi Nasional Perguruan Tinggi) (Azis, Simatupang, Wibisono, & Basri, 2014) and Pakistan's FRUCE (Faculty, Research, Use of Technology, Corporate Office, and Extracurricular Activities) model (Kolachi & Mohammad, 2013). PMS are essential steps that help business schools define their goals, select a strategy to attain them, and also help them to measure the outcome of their performance (Azis, Simatupang, Wibisono, & Basri, 2014).

Bhanbhro (2015) is of the view that Pakistan's quality assurance for higher education is only gauging such components that are relatively easy to determine. The indicator for quality should be students' quality of learning which should be evaluated through the goals that have been achieved by the students (Bhanbhro, 2015; Parvez, Anjum, & Khawaja, 2014). Thus Parvez, Anjum, and Khawaja (2014) propose that, "The simple argument is that HEC should come up with creative measures to evaluate the universities particularly the teaching and learning environment of the universities so that the low standard universities have guidelines to grow in certain directions (p.114).

The success of high-ranking business schools in Pakistan is a ray of hope and provides guidelines for business schools with lesser ranking. Better employability of foreign school business graduates is no more valid as the Pakistani IT industry seems to be interested in hiring the right candidate rather than a foreign qualified candidate; this right candidate may be a graduate from a Pakistani or a foreign business school. With the recommendations proposed above, the Pakistani business schools have the potential to be amongst the top-ranking business schools of the world. Nevertheless, it will be interesting to note whether the same case is valid with reference to the technical knowledge of IT Pakistani graduates when compared with foreign graduates.

6.1 Limitation and Future Research Avenues

There are at least three limitations with the findings of this research. Firstly, this study examined the employability skills of business graduates in IT industry. The findings may not be generalizable in other educational settings. Thus, further research needs to

be done amid private universities and public sector universities. Further, research needs to be done to institute that are similar skills needed in different industries of Pakistan? Though this study has positively established that the significant skills that are required by the Pakistani IT industry, an issue that was not addressed in the present study were that the data should have been collected from different service sector industries and a comparison of skills could have been done. Secondly, while taking the perspective of employers, students' perspective of the required skills should have been taken to provide a holistic view. To broaden our horizon further we could have also taken an academician perspective. There was a lack of pertinent literature available from Pakistan. These explicit limitations to the gathering and investigation of the data, identified the area for a forthcoming research study. This study wants to enhance the existing understanding of this viewpoint within an environment, there is much scope to further develop work in this area for the progress of future research. Firstly, besides from the employer's perspective, all the stakeholders' perspectives of required skills needed for the IT industry should have been taken as the perspective of graduates and academicians. There could have been longitudinal study taken in this regard keeping the present pandemic in mind. There could have been a research done by analyzing the existing economic climate and its impact on the hiring of graduates in the IT industry and a comparison could have been done whether it's the same skills that are still required by IT industry or due to pandemic, there is another skill requirement. Economic conditions are not stagnant, mainly long-term, henceforth the situations of the labor market are contingent to transform continuously. Consequently, continuous research in this area is vital to be abreast of the existing progress.

Author Contributions:

Sarwat Nauman developed the idea, formulated research questions and wrote the introduction, the methodology and the result sections

Shugufta Ghauri collected the data, wrote the introduction and the discussion sections.

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The data is with the authors and they do not wish to make it public

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Behavioural biases in Personal Financial Management and Perceived Financial Satisfaction: The Role of Speculative Risk

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Abstract

This study is designed to examine the impact of behavioural biases on perceived financial satisfaction and to determine the role of Speculative Risk between these variables. Using structured questionnaire study collects the data from respondents and then analyzes the same by using Reliability Analysis, Factor Analysis and Structural Equation Modeling (SEM) with the help of SPSS and AMOS. The result of study discloses that “Financial self-efficacy” and “Reliance on expert” has significant effect on financial satisfaction, while financial socialization has no significant effect on financial satisfaction. Beside this, study reveals that Speculative risk partially mediates the relationship of “financial self-efficacy” and “reliance on experts” with financial satisfaction. Beside this, moderating role of speculative risk was observed between IV’s and DV’s. Study reveals that speculative risk significantly moderates the relationship of Reliance on experts and financial satisfaction. This study is important for financial managers, policy makers and individual investors to comprehend the role of behavioural biases in financial decisions and financial satisfaction.

Keywords: *Financial self-efficiency; Financial Socialization; financial satisfaction; Speculative Risk*

JEL Code: D14, D31, G41

1 Introduction

Massive competition in the financial markets provides various investment alternatives to the investors. In this perspective, the personal financial management becomes more complex and the matter of concern for investors. The traditional financial paradigm presumed markets are efficient and publicly disclose all available information to market participants and enable them to make a rational decision (Fama, 1970). However, the new financial paradigm behavioural finance assumed overabundance of products information, and limited information processing ability of investors makes decision making highly complicated and inclines investors to make biased decisions (Pradhan, 2008). In this context, the choice of a financial product is significant (Pompian, 2008). An effective decision-making requires a significant amount of time, cognitive effort, and information processing ability to select the best alternative (Pellerone, 2014). Sahi et al. (2013) stated that effective decisions regarding financial resources not only

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increase financial satisfaction but also improve the quality of life. Study reveals that individuals should be motivated to find the financial information and increase the ability to control the emotions that can impact financial management capacities (Atkinson & Messy, 2011). In this perspective, study reveals that self-efficacy is the effective factor influencing behaviour (Bandura, 1991). Self-efficacy is a personal judgement of an individual to manage, control and influence various aspects of life (Bandura, 1991). However, Behavioural finance reveals that individuals cannot always act rationally in financial decisions (Howard, 2012; Otuteye & Siddiquee, 2014). To save time and be willing to quick decisions, investors can use behavioural biases (Pellerone, 2015). In behavioural finance literature, numerous behavioural biases are documented that influence investment decision-making (Ritter, 2003; Barberis & Thaler, 2003; Barber & Odean, 2001). These biases include overconfidence bias (Szyszka, 2013) reliance on expert bias (Fischer and Gerhardt, 2007) categorisation tendency (Mogilner et al., 2008), the adaptive tendency (Soros, 2003) socially responsible investing bias (Williams, 2007) spouse effect (Sung and Hanna, 1998) self-control bias (Shiller, 2006) financial self-efficacy (Bandura, 1991) and financial socialization (Hira et al., 2013). Studies reveal that Biases are not always bad as it may show the results according to the wish of decision-maker (Olsen, 2007). Sahi, (2017) further elaborates that individuals use biases in the decision to minimize the cost of decision making which leads to the maximization of the utility of individuals.

In finance literature these biases are used to determine their role in investment decisions, however, with the perspective of Pakistan, no prominent study is available which explores the role of these biases as a determinant of financial satisfaction. This study is an attempt to reveal the role of behavioural biases in personal financial management and individuals' financial satisfaction. To end this, the present study uses "financial self-efficacy", "Financial Socialization", and "Reliance on expert" as a proxy for behavioural biases in personal financial management. Financial self-efficacy is an extensive determinant of financial satisfaction (Asebedo & Payne, 2018). Individuals with greater self-efficacy are confident to handle anxiety and strain persuaded by undesirable events (Asebedo & Payne, 2018). Persons with a greater level of self-efficacy set higher goals, positively evaluate the task, consider external factors causing threats, and less inclined toward negative psychological factors such as anxiety depression, and stress (Bandura, 1999). Besides its significance in decision making, FSE is also an imperative predictor of financial satisfaction. Asebedo and Payne (2018), reveal that persons with a developed level of financial self-efficacy are better able to manage their financial anxiety and stress and such individuals are more financially satisfied.

Beside this, Reliance on experts is also considered as an important determinant of financial satisfaction. Reliance on experts is a behavioural bias used by low financially literate individuals during financial decision making (Folkman & Lazarus, 1980). Studies reveal that individuals who use the services of professionals during financial decisions show higher level of financial satisfaction (Xiao et al., 2006). Besides this, individuals who are not financially self-efficient as well as not hiring the services of

financial experts during financial decisions, generally involve parents, peers, and media to make these decisions and this tendency is named as “Financial socialization” (Hira et al., 2013). Financial socialization is also considered as an interpreter of financial satisfaction (Shim et al., 2009).

The present study is trying to explain which behavioural tendency is explaining higher level of financial satisfaction in individuals. Beside this, the study also investigates the role of speculative risk between these variables. Speculative risk reveal “the individual’s inclination towards the risk-taking side” (Lampenius & Zickar, 2005). The present study tests it as a mediator and moderator between study variables. This study is important for financial managers, policy makers and individual investors to comprehend the role of behavioural biases in financial decisions and financial satisfaction.

2 Related literature

2.1 Financial self-efficacy and financial satisfaction

Financial self-efficacy is defined as the confidence in one’s capability in attaining absolute financial goals (Forbes & Kara, 2010). It has a significant positive influence on individuals’ financial behaviour and their outcomes (e.g., trading profit volatility, portfolio allocation, wealth accumulation, and financial satisfaction (Montford & Goldsmith, 2016; Asebedo & Payne, 2018). Studies reveal that positive financial behaviour and investment experience cause a reduction in financial stress and an increase in overall financial satisfaction level (Joo & Grable, 2004). Individuals with a higher level of self-efficacy set higher goals, positively evaluate the task, consider external factors causing threats, and less inclined toward negative psychological factors such as anxiety depression, and stress (Bandura, 1999).

Besides this, another study reveals that women with higher self-efficiency tend to hold saving and investment products and avoid products related to debts (Farrell, Fry & Risse, 2015). Besides its significance in decision making, FSE is also an imperative predictor of financial satisfaction. Asebedo and Payne, (2018) reveal that persons with a greater level of financial self-efficacy are better able to manage their financial anxiety and stress and such individuals are more pleased with their financial state. Based on the above discussion we hypothesized:

H1. Financial self-efficacy is positively related to financial satisfaction

2.2 Reliance on expert and financial satisfaction

The present study use “Reliance on expert” as a behavioural bias in Personal financial management where individuals make their decisions based on expert opinion with the view of their better expertise and knowledge. The study reveals that when individuals face difficulty in making financial decisions, they are more likely to follow the financial expert opinion (Gino & Moore, 2007; Gino & Schweitzer, 2008). Studies reveal that individuals with low-level of financial literacy seen to rely on an expert for investment decisions (Perry & Morris, 2005). However, these individuals show a higher level of

financial satisfaction (Xiao et al. 2006); Grable and Joo, 2001). Studies also show that ROE bias has a significant positive impact on financial satisfaction (Sahi, 2017). However, this study further elaborates that this relationship is not true, where investors have little investment experience however, where investors have enough investment experience this positive relationship exists. Based on the above discussion we hypothesized:

H2. Reliance on experts has a significant impact on financial satisfaction.

2.3 Financial Socialisation and financial satisfaction

Financial socialization is defined as the process through which individuals acquire knowledge, attitude, and behaviour which direct them toward satisfaction. (Hira et al., 2013). This process of socialization initiates at the infant level and endures throughout life (McNeal and Moschis, 1987). However, the level of socialization swerves from individual to individual which causes behavioural differences (Falahati and Paim, 2011). Many researchers disclose various contributors of financial socialization however, the prominent contributors are parents, peers, and media (Moschis, 1987; John, 1999; Falahati & Paim, 2011; Starobin et al., 2013). Payne et al., (2014) noted that financial socialization has a significant impact on financial satisfaction. Saurabh and Nandan (2019) reveal that individuals rely on their family from the infant level and this affiliation influences their thinking process, attitude, and decision making especially in the matter of finance. They further conclude that individuals who perceive themselves as knowledgeable are also inclined by family, peers, and media toward their financial satisfaction. Based on the above discussion we hypothesized:

H3. Financial Socialization has a significant impact on financial satisfaction

2.4 Mediating role of Speculative Risk

Speculative Risk is defined as “the individual’s inclination towards the risk-taking side” (Lampenius & Zickar, 2005). This term is generally used as opposed to “risk aversion behaviour” and it shows individuals' gambling behaviour that how much amount of ambiguity that an investor is eager to take while making a financial decision (Hemrajani & Sharma, 2018). Risk seeking or risk tolerance attitude is considered as an important ingredient of portfolio construction (Olsen, 2008). Corter and Chen (2006) state that individuals change risk attitudes that exists autonomously of their financial situations, and that these attitudes affect investment behaviour”. Beside its role in financial decisions speculative risk is also considered as a predictor of financial satisfaction. Study reveals that Risk tolerance has a positive relationship with financial satisfaction (Joo & Grable, 2004). In most of the studies, financial risk tolerance attitude acts as a mediator between certain variables. Study reveals that “the relationship between financial socialization and financial satisfaction with financial risk attitude as mediator were also found to be significantly positive” (Saurabh & Nandan, 2019). Further, this study also reveals that financial risk attitude shows mediating between financial knowledge and financial satisfaction”. Based on these arguments we hypothesized that:

H4. Speculative risk mediates the relationship between financial self-efficacy and financial satisfaction.

H5. Speculative risk mediates the relationship between Reliance on experts and financial satisfaction.

H6. Speculative risk mediates the relationship between financial socialization and financial satisfaction.

3 Research Methodology

3.1 Data and sample

To perceive an individual's financial decision-making, the individual's having the "capacity to invest in the various instruments are of significant" (Gupta, 1991). The present study attracts the respondents having investment experience in different financial categories. These categories are fixed deposits, insurance, real estate, prize bond, and mutual funds. These categories were also used by Sahi, (2017) to observe the household behavioural biases and financial satisfaction. Structured questionnaire was distributed among above-mentioned people using the convenience sampling method. We distributed 250 questionnaires, and 230 people filled and returned the questionnaires. After scrutinizing of questionnaires 9 questionnaires were found incomplete so finally study used 221 questionnaires as a sample.

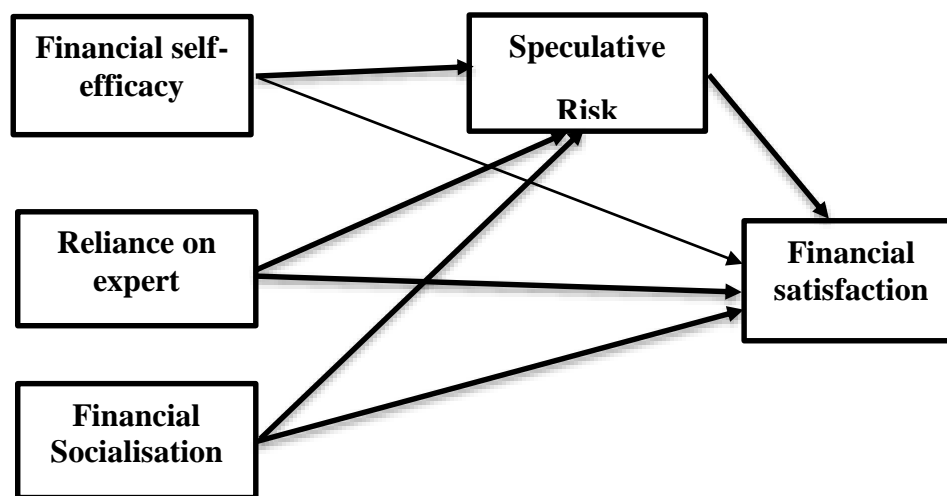


Figure 1. Conceptual framework

3.2 Measurement

Present study has five variables, three independents, one dependent, and one variable named speculative risk is test as mediator and as a moderator between IV's and DV. A structured questionnaire was used to measure these variables. Lown's (2011) Six-item financial self-efficacy scale is used to measure the financial self – efficacy of investors.

Each question in this scale is rated on score 1 (exactly true) to 4 (not at all true). “Reliance on expert” of individuals was measured using the four-item scale developed and used by Sahi, (2017). Financial satisfaction was measured using six items developed by Hira and Mugenda (1998). These questions inquire about the individual’s saving, their financial position, ability to meet contingencies, and their skills relevant to financial management. Besides this speculative risk was measured using 5 items. These items were taken from Mayfield et al. (2008) and Lampenius & Zickar (2005) and used for this study with suitable modification. Along with this, the study also used a 6-item scale developed by Hira et al. (2013) to measure financial socialization.

3.3 Statistical Analysis Techniques

Study uses SPSS-20 and AMOS-20 software to conduct the data analysis. First we execute the reliability and validity test of the instrument, then we find the correlation between study variables. Besides this, the study uses SEM to test the proposed hypotheses.

4 Analysis and Findings

4.1 Reliability Analysis

Table 1. Reliability Analysis

Constructs	No. of Items	Alpha
Financial Self-Efficacy	6	.899
Reliance on Expert	4	.886
Financial Socialization	6	.859
Speculative Risk	5	.870
Financial Satisfaction	4	.838

Table 1 shows the result of the reliability analysis. Study uses the Cronbach Alpha to check the reliability of scales. The result shows that the value of Cronbach Alpha for all constructs is greater than .70 which is highly acceptable. (Hair et al., 2010; Zaheer et al., 2008; Mishra and Shekhar, 2013).

4.2 Construct validity

To measure the construct validity study uses the convergent validity and discriminant validity parameters. Convergent validity is involved in measuring the “degree of correlation among different items that measure the same Construct” (Hair et al., 2010).

To test the convergent validity study finds Average variance extracted (AVE) and Scale Composite reliability (SCR). These were calculated by using the following formulas.

Table 2. Factor loadings, Validity and Reliability

	Estimate	AVE	\sqrt{AVE}	CR
Financial Self -Efficacy		.60	.77	.90
FSE1	.899			

FSE2	.719			
FSE3	.730			
FSE4	.711			
FSE5	.779			
FSE6	.806			
Reliance on Expert		.66	.81	.886
ROE1	.818			
ROE2	.840			
ROE3	.785			
ROE4	.811			
Financial Socialization		.51	.71	.86
FSO1	.739			
FSO2	.784			
FSO3	.717			
FSO4	.653			
FSO5	.642			
FSO6	.745			
Speculative Risk		.58	.76	.87
SR1	.883			
SR2	.844			
SR3	.762			
SR4	.680			
SR5	.629			
Financial Satisfaction		.58	.76	.84
FS1	.891			
FS3	.732			
FS5	.743			
FS6	.650			

$$\text{Average variance extracted} = \frac{\text{Sum of squared factor loadings}}{\text{Number of indicators}}$$

$$\text{Scale composite reliability} = \frac{(\sum \text{factor loading})^2}{((\sum \text{factor loading})^2 + \sum (1 - (\text{factor loading})^2))}$$

Table 2 result revealed that the factor loading for each item is greater than 0.60, and the value of Scale composite reliability is greater than 0.70 and the value of AVE is greater than 0.50 which reveals that study items hold sufficient convergent validity. The findings also determined an adequate value of discriminant validity for all the factors as suggested by Hair et al. (2010) that “the value of discriminant validity should be above 0.70”.

Table 3. Correlation Coefficient.

Construct	FSE	ROA	FSO	FS	SR
Financial Self efficacy	1	.035	.045	.162*	.120
Reliance on Experts		1	.161*	.237**	-.043
Financial Socialization			1	.142*	.375**
Financial Satisfaction				1	.283**
Speculative Risk					1

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

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

Study run the Pearson correlation test using SPSS to find the relationship between study variables. These results find that financial self-efficacy, reliance on experts, and financial socialization has a significant positive relationship with financial satisfaction. Besides this financial socialization has a significant positive relationship with speculative risk.

4.3 Common method Bias

CMB is arising when we collect the data from similar respondents at the same time (Podsakoff and Organ 1986). This data is also collected from similar respondents at the same time so there may be a common method Bias. To check this Harmon’s one-factor test is performed in SPSS. The result shows that first factor only explains 19% variance which is far away from 50% , so there is no problem of CMB.

The Structure equation model technique was used to analyze the impact of independent variables (Financial Self-efficacy, financial socialization and Reliance on experts) on the dependent variable (Financial Satisfaction). Figure 2 shown this relationship and revealed that financial Self-efficacy and reliance on experts has significant positive impact on the financial satisfaction level of the investors. Where financial socialization has no significant influence on financial satisfaction. Table 4 reveals that an increase in 1 level of financial self-efficacy caused an increase of 22% in financial satisfaction. These results are consistent with Asebedo & Payne (2018) which revealed “Financial self-efficacy is an important predictor of financial satisfaction”. Beside this an increase of 1 level of reliance on experts caused an increase of 27% in financial satisfaction. These results are consistent with literature which reveals that rational information during the investment decision-making cause wealth maximization and increases satisfaction level (Rashid & Nishat ,2009); Waqar et al., 2017).

Structural model for testing the impact of IV’s on DV

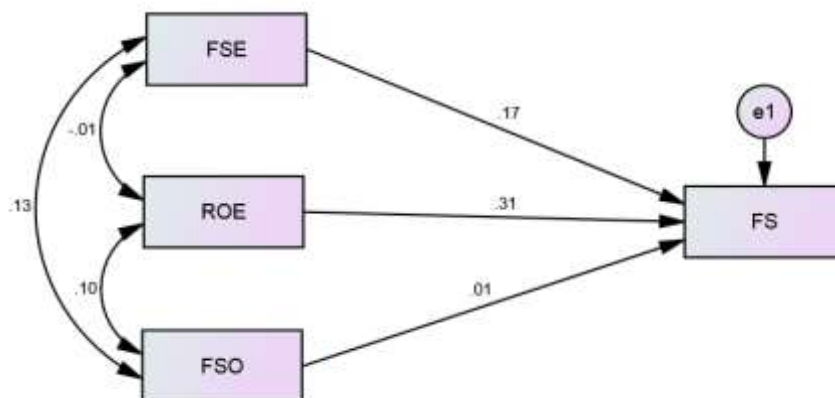


Figure 2. Structural Model.

Table 4. Regression Weights

Variables	Estimate	S.E.	C.R.	P	Accept/Reject
FS <--- FSE	.221	.080	2.754	.006	Accepted
FS <--- ROE	.277	.056	4.956	***	Accepted
FS <--- FSO	.008	.075	.114	.909	Rejected

Structural Model 2(Mediation Test)

To test the mediation analysis, we run the structural model using AMOS. The mediation model is shown in Figure 3. Study finds acceptable model fit (Table 5) as Chi-square value is 6.351 with Df 3 ,GFI = .989 ,AGFI = .944 , NFI = .924 as per the reference of Hair et al. (2010).

Table 5. Model Fit Indices of the constructs

χ^2	Df	χ^2/df	RMR	CFI	GFI	AGFI
6.351	3	2.117	.038	.956	.989	.944

Table 6 indicates the result of mediation analysis. These results reveal that the direct impact of financial self-efficacy on financial satisfaction remains significant but reduces in frequency which indicates that Speculative risk partially mediates the relation between these variables. Besides this, financial socialization shows no impact on financial satisfaction, so we do not proceed with further steps. The second column shows that the direct impact of Reliance on experts on financial satisfaction remains significant but reduces in frequency which indicates that speculative risk partially mediates the relationship between these variables.

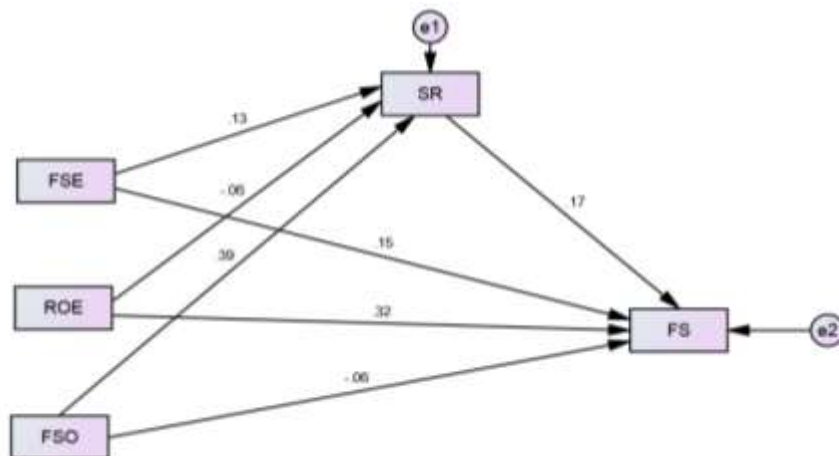


Figure 3. Structural Model.

Table 6. Hypotheses testing (with mediation)

Hypothesis	Direct Effect	p	Indirect Effect	p	Total Effect	p	Result
FSE → SR FS	.193	0.028	0.028	0.037	.221	0.097	Partial Mediation
ROE → SR FS	.286	0.00	-0.009	0.003	.277	0.006	Partial Mediation

The figure 4 model is run to check the moderating role of Speculative risk between financial self-efficacy and financial satisfaction. The result in table 7 shows that Speculative risk does not moderate the relationship between FSE and FS ($\beta = 0.060$, $p > 0.05$).

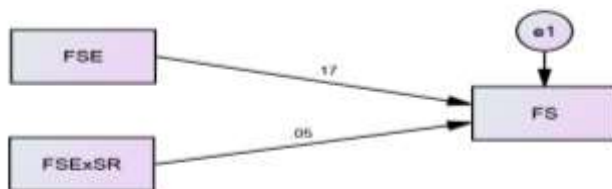


Figure 4. Structural Model.

Table 7. Hypotheses testing (with Moderation).

			Estimate	S.E.	C.R.	P
FS	<---	FSE	.218	.084	2.594	.009
FS	<---	FSE×SR	.049	.063	.785	.432

Structural Model 4 (Moderation Test 2)

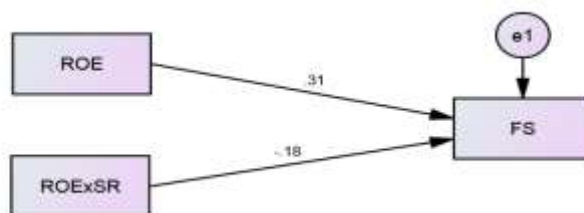


Figure 5. Structural Model.

The figure 5 model is run to check the moderating role of Speculative risk between Reliance on expert bias and financial satisfaction. The result in table 8 shows that Speculative risk significantly moderates the relationship between ROE and FS ($\beta = -.145, p < 0.05$).

Table 8. Hypotheses testing (with Moderation).

			Estimate	S.E.	C.R.	P
FS	<---	ROE	.275	.055	4.961	***
FS	<---	ROE×SR	-.170	.059	-2.862	.004

Structural Model 5 (Moderation Test 3)

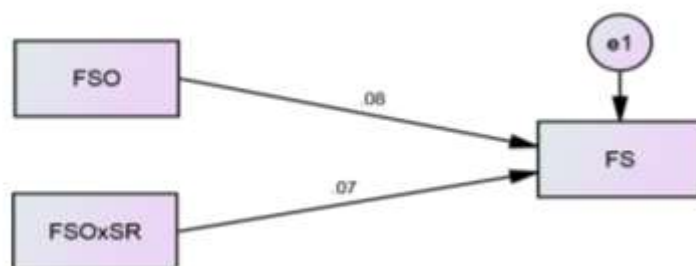


Figure 6. Structural Model.

Table 9. Hypotheses testing (with Moderation).

Variables			Estimate	S.E.	C.R.	P
FS	<---	FSO	.099	.078	1.265	.206
FS	<---	FSO×SR	.068	.062	1.109	.267

The figure 5 model is run to check the moderating role of Speculative risk between Financial Socialization and financial satisfaction. The result in the table shows that Speculative risk does not moderate the relationship between FSO and FS ($\beta = .091, p > 0.05$).

5 Discussion and Conclusion

This study is designed to examine the impact of behavioural biases on perceived financial satisfaction and to determine the role of Speculative Risk between these variables. Using a structured questionnaire, the study collects the data from respondents and then analyzes the same by using Reliability Analysis, Factor Analysis, and Structural Equation Modeling (SEM) with the help of SPSS and AMOS. The result of the study discloses that financial self-efficacy and Reliance on expert has significant effect on financial satisfaction, while financial socialization has no significant effect on financial satisfaction. Besides this, the study reveals that Speculative risk partially mediates the relationship of financial self-efficacy and reliance on experts with financial satisfaction. Besides this, the moderating role of speculative risk was observed between IV's and DV's. The study reveals that speculative risk significantly moderates the relationship of Reliance on experts and financial satisfaction. These results are consistent with existing literature (Sahi, 2017; Hira et al., 2013; Asebedo & Payne, 2018). This study is important for financial managers, policymakers, and individual investors to comprehend the role of behavioural biases in financial decisions and financial satisfaction.

5.1 Contribution and future research direction

This study contributes to the literature on behavioural finance by explaining the relationship between behavioural biases and financial satisfaction. This study reveals that biases are not always bad, and these biases play an important role in financial decisions. Future studies can use other behavioural biases such as overconfidence, self-control bias, socially responsible investing bias, and adaptive tendency in relation to financial satisfaction. Besides this, they can also comprehend the role of financial literacy in explaining the financial satisfaction of individual investors.

Author's Contribution:

Muhammad Nauman Sadiq: Conceptualization, Methodology, Writing-Original Draft, Formal Analysis,

Syed Ali Raza Hamid: Review and Editing, Supervision

Raja Ased Azad Khan: Data collection, Review and Editing

Data Availability Statement:

The data collected and examined during the current study is available on request from corresponding author.

Conflict of Interest:

No conflict of interest

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Work Practices to Augment Employees' Performance Oriented Behaviors?

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Abstract

We examine the relationship between high-performance work practices and employee performance mediated by employee involvement, motivation, and satisfaction. For this purpose, we collected data on adapted scales from 292 heads of departments of various public and private sector institutions from Pakistan. The results indicated a positive and significant impact of high-performance work practices on employee involvement, motivation, satisfaction, and performance. Besides, results also supported the mediation of employee involvement and motivation. However, the relationship between employee satisfaction and performance was not found significant and similarly, its mediation was also not established as we had expected. The study is the first of its kind, where a composite model of high-performance work practices was tested for its employee-related outcomes. Moreover, the mediation of employee involvement and employee motivation in the relationship between high-performance work practices and employee performance is also a noteworthy contribution of the current research in the Pakistani context. The results are generalizable to public and private sector higher education institutions of Pakistan but can also be used in other organizations with caution.

Keywords: High-Performance Work Practices (HPWPs); Employee involvement, Employee motivation; Employee Performance; Employee Satisfaction; Higher Education Institutions

JEL Code: M12, J24

1 Introduction

In the contemporary business world, developed, motivated, engaged and committed employees of an organization are a unique source of competitive advantage (Kryscynski, Coff & Campbell, 2020; Porter, 1998). Therefore, the majority of research and practices revolve around activities to develop and maintain this precious capital to achieve organizational effectiveness (Dayarathna, Dowling & Bartram, 2019). Modern organizations have realized that effective human resource strategies are instrumental in making employees satisfied in their workplace. One of these strategies is a bundle of critical human resource practices known as High-Performance Work Practices (HPWPs). The main idea behind the phenomenon is that multiple HRM practices should be used in logical bundles to produce a synergistic effect on performance at the

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individual and organizational levels (Beltran-Martin & Bou-Llusar, 2018; Ho & Kuvass, 2020). The composition of these bundles varies from organization to organization, depending upon the type and requirement of the entity. However, the most commonly used bundles include practices like recruitment & selection, performance evaluation, compensation and benefits, training & development, participative decision making, employee retention, etc.

Previous literature has provided evidence that an effective bundle of HPWPs can enhance organizational effectiveness and productivity (Alatailat, Elrehail & Emeagwali, 2019; Liu, Liu & Li, 2006; Obeidat et al., 2016; Ogbonnaya & Valizade, 2015). Research has also substantiated that HPWPs enhance employee performance (Safavi & Karatepe, 2018; Garg, 2019; Johnson, 2013; Long, Ismail, & Amin, 2012; McCurdy, 2015; Sparrow & Otaye-Ebede, 2014;). However, the process through which such practices establish their significance for employees in a specific organization remains unexplored. Especially, it has not been studied in the context of higher education institutions (HEIs) of Pakistan. The academic administrators of these organizations face day-to-day issues about faculty involvement, motivation, and performance and there is always a need to identify a bundle of HR practices that may produce a collaborative effect towards effective performance (Naeem et al., 2019). Therefore, this paper attempts to find out a specific bundle of HPWPs for these institutions and establishes its linkages with multiple intermediate employees' related outcomes (motivation, involvement, engagement) that may lead to enhanced employee performance.

Previous studies have only focused on the impact of HPWPs and HR strategies on employee satisfaction or employee motivation (Tohidi, 2011). Researchers have also studied the direct impact of HR strategies on employee performance without any mediating role of intermediate outcomes (Katou & Budhwar, 2010). There is a significant amount of empirical research to support the phenomenon that effective HRM systems have a significant impact on organizational performance (Han et al., 2019; Carmeli & Tishler, 2004; Datta, Guthrie, & Wright, 2005; Huselid, 1995; El-Ghalayini, 2017; Dastmalchian et al., 2020). Even the extant literature endorses that performance appraisal, compensations and benefits, and training and development activities have a significant impact on organizational performance. Especially from the perspective of HPWPs, the researchers have mostly paid more attention to their link with organizational outcomes like organizational effectiveness and performance (Guthrie et al., 2009; Verburg et al., 2018). However, as per our best knowledge, there is little research on the investigation of linkages between HPWPs and employees' performance, especially through mediating effects of motivation, involvement, and employee satisfaction, which remains unexplored as a composite model till today.

Although some studies have considered single or dual level mediation effects of employees related outcomes leading to organizational performance (Ahmed et al., 2019), yet did not consider the interdependencies among employees' related events within the same organization and therefore fail to handle sources of errors more

rigorously (Shen & Zhang, 2019). Even though researchers acknowledge the importance of multilevel mediation analysis as a viable technique for addressing such errors (MacKinnon, 2008; Preacher, Zyphur, & Zhang, 2010), none have taken it as a composite model especially while studying the effectiveness of HPWPs for employee performance with three mediators as we have done in the current study.

The main feature of HPWPs is the concept of HRM bundling (Beltran-Martin et al., 2009; Gahan et al., 2020) but it cannot be implemented consistently as a single solution. It is drawn on the alignment of HRM activities into organization-specific internally consistent systems that support each other or creates context-specific “internal fit” (Delaney & Huselid, 1996). In other words, it creates a synergistic effect when individual HRM practices are used in coherent bundles and these complement each other through their mutually supportive properties (Macdufflie, 1995). However, there is little consensus among researchers as to what HRM practices should be included in a typical HPWPs bundle. Since it varies from context to context, therefore, researchers have suggested further investigation in this regard (Beltran-Martin & Bou-Llusar, 2018; Jiang et al., 2012). The current research is an attempt in the same direction.

Posthuma et al. (2013) support the concept of equifinality for HPWPs and maintain that it is an open system and the combination of required practices can be altered based on the needs and requirements of the organization. Delaney and Huselid (1996) had also suggested multiple possible combinations of HPWPs to achieve desired objectives for an organization. The characteristic of equifinality for combining HPWPs adds a significant amount of complexity for researchers and practitioners in this field. Especially from management and practitioner’s perspective, it becomes a challenging decision to understand, implement, or replicate the practices of other successful firms. At the same time, it provides a scope for the researchers to include and study multiple combinations of HPWPs for different organizations as it can be a unique source of sustained competitive advantage (Grobler & De Bruyn, 2018; Lepak et al., 2006).

The current study was designed to identify an effective bundle of HPWPs to enhance employee performance in HEIs of Pakistan. Specific objectives were as follows:

1. To find out the impact of a bundle of HPWPs on employee motivation, involvement, satisfaction, and performance.
2. To establish the path between a bundle of HPWPs and employee performance through employee satisfaction, motivation, and involvement.
3. To find out as to which of the mediators from amongst employee satisfaction, motivation and involvement best fits the model.

The unique combination of high-performance work practices (HPWPs) identified for the HEIs of Pakistan include items about multiple practices like recruitment and selection, performance appraisal, safety environment, employee participation, communication, teamwork, training and development, and rewards/remuneration, etc.

These are based on recommendations from the studies of Posthuma et al. (2013) and Murphy et al. (2017) mainly for the service industry. The suggestions from the study of Mohamed, Mohamad, and Abdullah (2018) for HEIs of Malaysia were also considered while developing the model for the current study. Additionally, the mediating factors of employee motivation, involvement, and satisfaction were also included in the model.

2 Related literature

Employee performance is measured against the performance standards set by the organization (Audenaert et al., 2019). Earlier research on the productivity of workers has reflected that employees who are motivated, involved, and satisfied with their job will have higher job performance in comparison with those who lack these attributes (Manzoor et al., 2019). In the same way, Long et al. (2012) suggest the HR managers to have more focus on personnel issues and synchronize these with business strategies. They further recommend that the managers should give due importance to the human resource development (HRD) activities that enhance employees' motivation, efficiency, and effectiveness at work.

A good blend of HPWPs such as career development, coaching, performance management and development, systematic employee training and development, organizational development, succession planning, and mentoring are very important to ensure employees' manual dexterity at work. This enhances employees' liking for the work, increases their involvement, motivation, and satisfaction. These employees tend to perform better at their workplace both in terms of quantity and quality of work (Dubbelt, Demoeruti & Rispen, 2019; Huselid, 1995; Gheitani et al., 2019). Both equity theory (Adams, 1965) and Herzberg's motivation-hygiene theory (1966) provide a useful explanation for the relationship between high-performance work systems and employees' motivation as well as satisfaction with their work. Hygiene theory discusses employee satisfaction and dissatisfaction factors, which takes motivation theories to a whole new level. According to this theory, employee motivation increases due to performance appraisal and training and development. The factors for satisfaction are achievement, responsibility, recognition, advancement, the work itself and growth. The dissatisfaction factors are company policies, relationships with supervisor and peers, supervision, work conditions, status, salary and security (Habib, Awan & Sahibzada, 2018). When it comes to measuring intrinsic and extrinsic rewards, the suitably applicable theory is the equity theory, which discusses the costs and benefits, according to a person's perception about a certain factor or element.

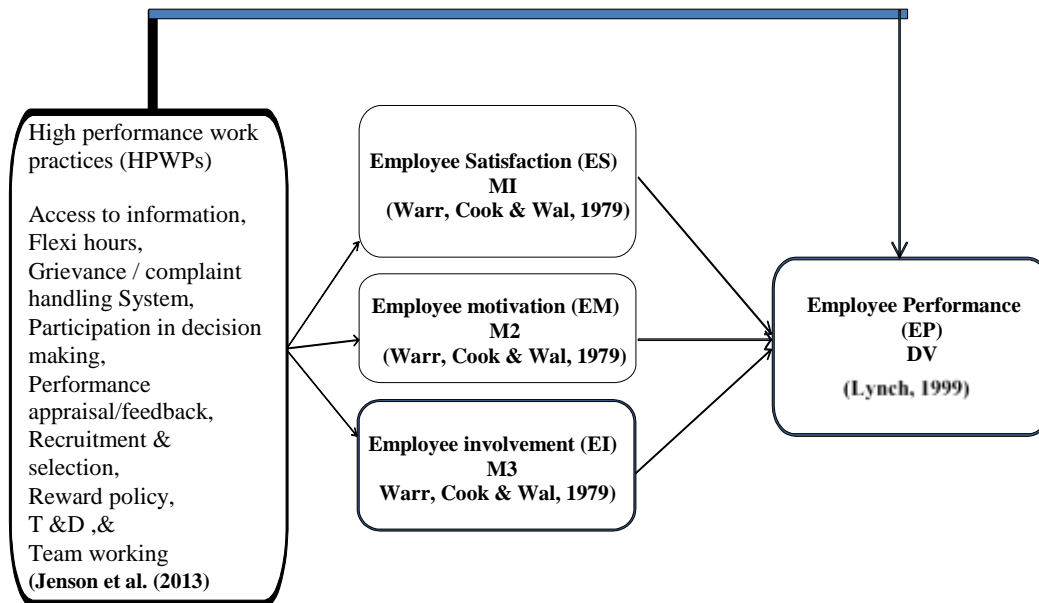
Equity theory discusses the relative and absolute terms, where an employee initially compares his rewards with his/her performance and then he/she compares that analysis with colleagues, who get rewards against their performance (Carrell & Dittrich, 1978). It is mainly about the perception of people about themselves and other colleagues, who are working under the same conditions. Equity theory expresses the perception of people about their surroundings, whereas hygiene theory mainly discusses the external factors that cause motivation. Employee motivation and employee satisfaction are related and important to each other. Motivation is a "positive emotional condition or

pleasurable state when a person is appraised correctly in terms of his job and job experiences". Positive emotional responses to the job yield employee satisfaction (Gadiraju & Demartini, 2019). Evidence suggests that HPWPs such as empowerment, training, and rewards increase employees' skills, knowledge, abilities, and encourage them to achieve a higher level of productivity. When those practices are used collectively, they support and strengthen each other (Garg, Punia & Jain, 2019). Liden, Wayne, and Sparrowe (2000) further describe the process that when employees feel that their work can influence outcomes that affect their organization and that their work is meaningful, they tend to feel more involved and therefore gain a sense of satisfaction with their job.

The important practices like training, involvement in decision making, rewards, promotions, etc. motivate employees and enable them to get satisfied with their jobs and perform better in the organization which improves their performance (Asaari, Desa & Subramaniam, 2019). Based on the literature review, the current study has adopted a bundle of HPWPs as recommended by Jenson, Patel, and Messersmith (2013) and previously designed and studied by Datta et al. (2005). The scale designed for these studies contains items relating to multiple HRM practices including recruitment and selection, performance evaluation practices, compensation and benefits, participative decision making, employee turnover, employee retention, and training and development.

2.1 Research Hypotheses

Effective implementation of HPWPs comprised tailor-made strategies for performance evaluation, compensation and benefits, training and development, employee involvement, participative decision making, and employee retention that can have a significantly positive effect on employee performance. Many researchers (Huselid, 1995; Jiang et al., 2012; Johnson, 2013; Kandula, 2010a, 2010b; Katou & Budhwar, 2010; Nohria, Groysberg, & Lee, 2008; Sparrow & Otake-Ebede, 2014; Tohidi, 2011; Urea & Muscalu, 2012; Brinck, Otten & Hauff, 2019) show agreement that HPWPs are linked with employee satisfaction. Herzberg's motivation-hygiene theory clarifies this link in detail while explaining as to which factors lead to enhanced employee satisfaction and which are essentially required to avoid employees' dissatisfaction at work. These factors were later combined to form a bundle of HPWPs (Zirar, Trusson & Choudhary, 2020; Kandualala, 2010a; Sparrow & Otake-Ebede, 2014; Naeemet al., 2019; Garg et al., 2019). On the other hand, literature also provides support that satisfied employees perform better at work in comparison with dissatisfied people (Mahmood et al., 2019). Although few researchers argue that satisfaction does not necessarily lead to significant improvement in performance (Greene, 1972; Organ, 1977), still majority favors the linkage in the same direction (Gu & Siu, 2009). Hence it can be hypothesized that:



Note: IV: Independent variable, M1: Mediator 1, M2: Mediator 2, M3: Mediator 3; DV: Dependent Variable

H1. Utilization of HPWPs comprised of performance evaluation, compensation and benefits, training and development, participative decision making, employee retention as a bundle, are positively related to employee performance in HEIs of Pakistan.

H2. Utilization of HPWPs comprised of performance evaluation, compensation and benefits, training and development, participative decision making, and employee retention as a bundle, are positively related to employee satisfaction in HEIs of Pakistan.

H3. Employee satisfaction mediates the relationship between HPWPs bundle and employee performance in HEIs of Pakistan.

Employee involvement plays a vital role to satisfy an employee of an organization. Employee involvement gives a sense of pride and belonging to the employees with the organization. Employees feel that people in ownership and management positions value them as a significant contributor to the team's success. When people feel valued, they will usually raise their level of effort and commitment to ensure the department's or company's success. Locke and Schweiger (1979a) and Wagner (1994) state that employee involvement is a tool through which each employee shares his/her knowledge within the organization without any discrimination. Furthermore, Wagner (1994) defines that it is the management of participation that involves all the employees and knowledge is shared that enhances the decision-making power as well as willingness of problem solving. Therefore, it is hypothesized that:

H4. HPWPs comprised of performance evaluation, compensation and benefits, training and development, participative decision making, and employee retention as a bundle, have a positive effect on job involvement of employees at work in HEIs of Pakistan.

H5. *Employee involvement mediates the relationship between HPWPs bundle and employee performance.*

Researchers have an agreement that HPWPs are effective tools to motivate the employees in an organization (Ogbonnaya et al., 2018; Nadeem & Rahat, 2020; Jiang et al., 2012; Johnson, 2013; Sparrow & Otake-Ebede, 2014;). Researchers have also found positive relationships among various dimensions of HPWPs and employee motivation as well as performance (Odiaka & Chang, 2019; Kandula, 2010a, 2010b; Sparrow & Otake-Ebede, 2014). It has been found that training and development enhance the employees' competence, which ultimately encourages and motivates them to perform better at the workplace. Similarly, the equitable and effective performance appraisals motivate employees intrinsically and extrinsically to perform better, especially when these are linked with rewards and benefits (Alsuwaidi et al., 2020; Goel, 2013; Long et al., 2012; Aydın & Tiryaki, 2018; Idowu, 2017). Recruitment and selection of employees also provide an opportunity for the organization to present itself in a favorable light (Ekwoaba et al., 2015). Employees of a firm are motivated if they have confidence that the organization cares for them and treats them in a respectable manner. High-performance work practices build employees' trust in the organization and management and motivate them to perform better at the workplace. Therefore, the current study has hypothesized motivation as another useful mediator in the relationship between selected HPWPs and employee performance.

H6. HPWPs comprised of performance evaluation, compensation, and benefits, training and development, participative decision making and, employee retention as a bundle, are positively related with employees' motivation in HEIs of Pakistan.

H7. Employee motivation mediates the relationship between HPWPs bundle and employee performance in HEIs of Pakistan.

3 Research Methodology

The current study used a survey technique for the collection of data through a questionnaire adapted from different studies for each dimension. A list of public and private sector universities of Pakistan was obtained from the official website (www.hec.gov.pk) of the higher education commission (HEC) of Pakistan. There were 206 institutions (listed in the directory of which every 7th university was selected randomly for participation in the research. The HR or administrative department heads of each selected university were requested telephonically for cooperation in the research survey and were asked to get the questionnaire filled by HoDs of each department in their institution. Being heads of the departments, they remain actively involved in all administrative activities pertaining to their departmental faculty including recruitment

and selection. They not only indicate the HR needs of their department but also made part of the selection board and their consent has a due weightage at the time of selection. HoDs are the individuals who ensure all other management activities after taking the faculty members onboard and are more knowledgeable about day-to-day HR needs within the department. Moreover, they are the best judge to indicate the level of their faculty involvement, motivation, satisfaction, and performance in their teaching activities. Another reason for selecting HoDs as a sample for the current study was their in-depth knowledge of research. Their active participation in the whole process helped researchers to obtain realistic data. Therefore, the instrument chosen for the study was specifically developed for department-level HPWPs, as designed by Jenson et al. (2013). After getting their consent, they were sent a formal request letter along with research questionnaires, separately enveloped for each department. On the whole, 29 universities were contacted for participation. Out of these, 25 (14 private & 11 public sector universities) gave their consent and were approached for formal data collection through self-administered or online data collection techniques.

The sample for the current study was comprised of HoDs of various departments of public (11) and private sector (14) universities of Pakistan. The majority of the respondents were male with a rate of 76% of the overall sample. The educational level of the respondents was PhD (93%) or in very few cases MPhil, but not less than that in any case. The research participants belonged to various age groups starting from 31-35 (9%) to 51 and above (5%). The highest number of participants (36%) belonged to 41-45 age group. Two groups of HoDs (32 and 18) were in the age bracket of 36-40 and 41-45 years respectively. The sample was drawn from across the country and the representation of each province was ensured. Overall, 12% of the respondents belonged to the institutions from Sindh, 5% from Balochistan, 17% from KPK, 21% from federal capital Islamabad and the remaining 45% from Punjab. 46% of respondents were from the public and 54% were from private sector institutions.

3.1 Measurement

Multiple scales were used to measure the response for each dimension of the study. The independent variable HPWPs was measured with 21 items tool developed by Datta et al. (2005). The same tool and scale was used by Jenson et al. (2013) to measure the utilization of HPWPs at the department level in local government authorities of Wales. Jenson et al. (2013) indicated a reliability value as 0.81 for this bundle. The response was measured against a five-point Likert scale where 1 represented strong disagreement and 5 strong agreement. Sample items included "To what extent do you agree or disagree that your department has one or more employment tests prior to hiring (e.g. personality, ability tests), etc. Three mediators employee satisfaction, employee motivation, and employee involvement were measured through 16, 06 and 06 items tools respectively adapted from Warr, Cook and Wal (1979). Sample items included, "I like to look back on the day's work with a sense of a job well done", "I get the recognition for good work", "I would soon get very bored if I had no work to do" and I take pride in doing my job as well as I can. etc. respectively. The initial reliability

(Cronbach's Alpha) values indicated by Warr et al. (1979) were 0.86, 0.82, and 0.64 respectively. Similarly, employee performance was measured by a 16 items scale adapted from the study of Lynch (1999) with Cronbach's alpha as 0.91. Sample items included "I meet formal performance requirements of the job" and "I go out of my way to help new employees" etc.

3.2 Data collection procedure

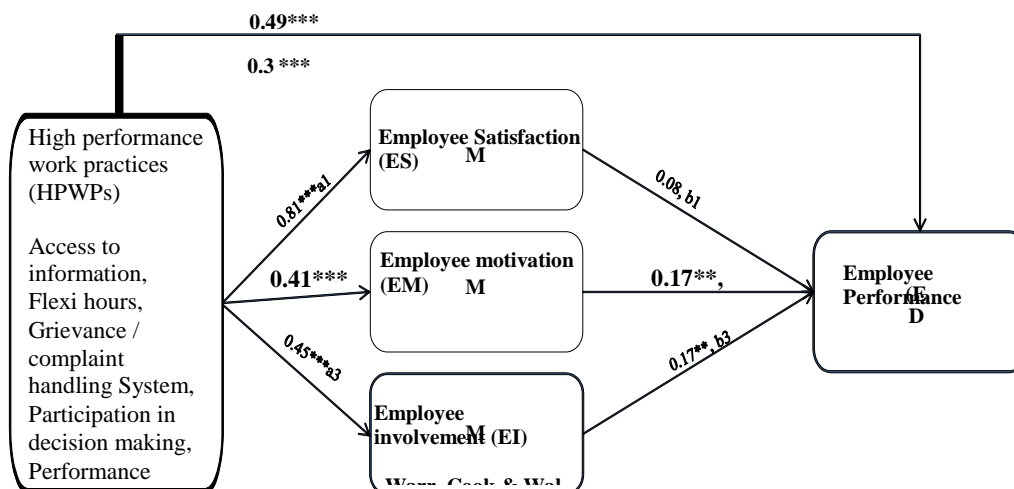
The data were collected against two separate instruments with separate cover letters, where the items of HPWPs were listed in the first questionnaire and the remaining items pertaining to employee motivation, satisfaction, involvement (mediators), and employee performance (outcome variable) were listed in the second questionnaire. Cross-sectional data were collected through self-administered and online data collection techniques. We sent a total of 635 questionnaires to the respondents out of which 245 were administered personally and 390 were sent through online methods. Overall, 303 respondents replied back, however, 292 responses were complete and properly filled, which were used for further analyses. The self-administered questionnaires were personally and through representatives were floated to the respondents at two different times to ensure the minimization of common method bias (CMB) in data collection. In some cases, respondents were approached after one or two days again for filling the second questionnaire. We had an edge in data collection as the respondents being HoDs of departments were well aware of the research processes and in most cases, they did cooperate. Therefore, 180 (73%) responses were received back through self-administered questionnaires and 123 (31.5%) through online data collection techniques. To minimize the bias, several techniques as recommended by Podsakoff, MacKenzie, and Podsakoff (2003) were used. During the face-to-face interaction between researchers and respondents, a friendly environment was created. The cover letter included several items for the identification of respondents (for example, name, email, contact information, etc.), however, these were kept optional to ensure their anonymity. Similarly, they were given the option to know the results of the research, which could help them in improving their knowledge and performance using the findings. This was done to create and maintain their interest in this activity so that they feel comfortable and may benefit from the research. Moreover, they were assured in the cover letter that the purpose of the research was purely academic and had nothing to do with the policy-making process of any institution. However, being key personnel, they had the opportunity to assess and use the results to benefit their respective institutions. Later on, the results were statistically tested to check for any significant influence of CMB using the common marker variable, which reflected a good fit to the data (CMIN/Df: 3.359, CFI: 0.909, TLI: 0.912, RMSEA: 0.066). Moreover, the differences between substantive latent variable correlations for both models (with and without common factor) varied negligibly (mean difference 0.021). These results demonstrated that the respondents were able to understand and differentiate between substantive variables and they provided data based on actual practices being carried out in their respective organizations.

4 Data analysis

The reliability and validity of the instruments were checked through Cronbach alpha in SPSS (v-21) and AMOS (v-19) respectively. Moreover, the construct validity of the instrument was determined through convergent (AVE, CR, MaxR(H)) and discriminant validity (MSV, square root of AVE) using validity master application in the statistical tools package of MS Excel 2007. Confirmatory Factor Analyses (CFA) were conducted in AMOS to ascertain the construct validity of the dimensions. The initial values of model fit indices were not satisfactory, therefore several contributory items with low factor loadings ($\lambda < 0.5$) were removed from the analyses. These included seven items from the independent variable HPWPs, five items from the mediator employee satisfaction (ES), and one item from the dependent variable employee performance (EP). Remaining items indicated good model fitness (CMIN: 3980.72; df: 1257; p: 0.00 < 0.001; CMIN/df: 3.167 < 5; IFI : 0.911 > 0.9; TLI: 0.901 > 0.9; CFI: 0.911 > 0.9; RMSEA: 0.061 < 0.08) and factor loadings above 0.55 for each item. All other analyses and computations were conducted on the remaining 52 items. CFA Table, showing items of the instrument, is given at annexure A.

As shown in Table-I, the reliability analyses of the data indicate satisfactory values, with the lowest for employee satisfaction as 0.924. All of these are much above the threshold value (i.e. $\alpha > 0.70$) indicated by Hair, Black, Babin, and Anderson (2010). The values of CR (Min: 0.926, Max: 0.988) were found greater than the threshold value of 0.70, hence, the data qualified the conditions for reliability. Similarly, the value of AVE for each variable was found as more than the required value of 0.5. Moreover, the value of CR was greater than AVE (Min: 0.596, Max: 0.844) as required for the convergent validity of the data (Byrne, 2010). In the same way, the maximum reliability of the highest order MaxR(H) for each dimension is much higher than the threshold value of 0.80 and supports for the convergent validity of all the factors included in the measurement model (Hancock & Mueller, 2001). The values of MSV (Min: 0.136, Max: 0.396) were also smaller than AVE and conform to the conditions for discriminant validity for the data. Another criterion for testing the discriminant validity is the square root of AVE shown in bold faces (Table – I), and the values are greater than the rest of the inter construct correlations in each case. Hence, the discriminant validity between the three latent constructs is also established (Fornell & Larcker, 1981). The correlation values also lie within the acceptable range and in no case higher than 0.8 to doubt for a significant multicollinearity among the variables. These results ascertain the validity of the instrument and data collected for the current study.

Figure 2
Mediation Model



* $p < .01$. *** $p < .001$

Not IV: Independent variable, M1: Mediator 1, M2: Mediator 2, M3: Mediator 3; DV:

Table 1 – Reliability and validity analyses (N=292)

	Mean	Cronbach's Alpha	CR	AVE	MSV	Max R(H)	HPWPs	ES	EM	EI	EP
HPWPs	4.16	0.965	0.954	0.596	0.194	0.984	0.772				
ES	4.11	0.924	0.965	0.671	0.194	0.982	0.440**	0.819			
EM	3.88	0.934	0.926	0.679	0.396	0.957	0.321**	0.380**	0.824		
EI	3.76	0.933	0.934	0.703	0.396	0.953	0.340**	0.359**	0.629**	0.838	
EP	4.11	0.942	0.988	0.844	0.136	0.992	0.363**	0.369**	0.286**	0.320**	0.919

*** $p < .001$

Table 2 - Regression Analysis by Process Macro showing employee satisfaction (ES), employee motivation (EM) and employee involvement (EI) as mediators between High performance work practices (HPWPs) and employee performance (EP) (N=292)

Paths	Coefficients	SE	T
Path a1 (IV-M1)	.81***	.037	21.62
Path a2 (IV-M2)	.41***	.053	7.79
Path a3 ((IV-M3)	.45***	.054	8.25
Path b1 (M1-DV)	.07***	.085	0.89

Path b2 (M2-DV)	.17**	.059	2.94	
Path b3 (M3-DV)	.17***	.056	3.06	
Path c (IV-DV without mediators)	.45***	.054	8.25	
Path c' (IV-DV with mediators)	.33***	.088	3.81	
Indirect Effects of IV on DV Paths	Effect	Boot SE	BootLLCI	BootULCI
Total indirect effect of IV on DV	.1129	.0692	.0738	.2853
ES (M1)	.0617	.0859	-.1186	.2200
EM (M2)	.0723	.0371	.0133	.1600
EI (M3)	.0705	.0344	.0169	.154
Normal Theory Test Paths	Effect	SE	Z	
ES	.0617	.0691	0.89	
EM	.0723**	.0264	2.74	
EI	.0705**	.0252	2.79	
p < .01. *p < .001				
Notes: IV: Independent variable (HPWPs), M1: Mediator 1(Employee satisfaction – ES), M2: Mediator 2 (Employee motivation – EM), M3: Mediator 3 (Employee involvement – EI); DV: Dependent Variable (Employee performance – EP)				

Total effect model establishes path c for the study which is also significant (HPWP-EP: $b = 0.4481$, $t = 8.2515$, $p < 0.001$). This is the relationship between independent and dependent variables without mediators and is required to be significant as per the third condition for mediation analysis. The direct model or c' is the relationship between HPWPs and EP through mediators. In the current study, path c' remains significant even after inclusion of mediators ($b = 0.03352$, $t = 3.8098$, $p < 0.05$) however the value is lesser than path c, which indicates complementary partial mediation (Zhao, Lynch, & Che, 2010) of the two mediators (EM and EI) in the relationship between HPWPs and EP. The indirect effect is the difference between total and direct effect and indicates the exact mediation size, which is also significant with positive bootstrapping values at both upper and lower class indices ($c - c' = 0.1129$, $\text{BootLLCI} = 0.0976$, $\text{BootULCI} = 0.2853$). The individual effects of each mediator were also significant except with employee satisfaction which proved to be insignificant in the whole process ($b: 0.0617$, $\text{BootLLCI} = -.1186$, $\text{BootULCI} = 0.2200$).

To further test for the significance of the mediation effect, the normal theory test was applied. The significance of z score ($z < 0.05$) also confirmed the complimentary mediation of employee involvement (EI) and employee motivation (EM) in the relationship between HPWPs and employee performance (EP). The model presented in the current study contained three mediators, namely Employee Motivation (EM), Employee Satisfaction (ES), and Employee Involvement (EI). The result confirmed that employee motivation and involvement establish the path between HPWPs and EP. However, employee satisfaction could not qualify as a mediator in the path as the relationship between ES and EP was not significant. Therefore it is concluded that HPWPs lead to enhanced employee satisfaction but it is not necessary that satisfied

employees produce better results in terms of higher performance at work. On the other hand, there is a significantly positive relationship between the bundle of HPWPs, and employee involvement and motivation. It was also established that motivated employees, who are also well involved in their work can significantly produce higher performance.

The current study proves that employee involvement and motivation establish the path between HPWPs and employee performance. Previous research indicated similar trends in different contexts and confirmed that HPWPs enhance employee involvement (Harley, 2002; Kalleberg, 2006; Ramsay, Scholarios, & Harley, 2000) motivation (Jiang et al., 2012; Nohria et al., 2008) and their satisfaction (Karatepe, 2011; Yanadori & Jaarseld, 2014) at work. However, none of them had studied these variables collectively in a single model, especially as mediators in the context of HPWPs leading to employee performance. The current study has established the path and confirmed that employee involvement and motivation not only enhance employee performance but also significantly mediate the relationship between HPWPs and employee performance. However, the relationship between employee satisfaction and employee performance was found insignificant and hence was not proved to be a significant mediator in the path. In other words, the study has established the path between HPWPs and employee performance through employee involvement and motivation.

We adopted a set of HPWPs used by Jenson et al. (2013) for department-level assessment. Similar to our study, Jenson et al. (2013) had used a composite approach for evaluating the bundle of HPWPs. The instrument used by them and subsequently in the current study was comprised of 21 items about multiple HRM practices like recruitment and selection, information sharing, performance evaluation, feedback, rewards, team working and flexi hours, etc. Ogbonnaya, Daniels, Connolly, van Veldhoven, & Nielsen (2016) have specifically studied various clusters of high-performance work practices in the context of employee job satisfaction and other related variables and held a comparison as to which of these were more effective. However, they did not consider the intervening roles of multiple intermediate outcomes like satisfaction, involvement, and motivation leading to the overall performance of employees. Therefore, the current study has not only combined various high-performance HRM activities under one umbrella, but also explained the process through which these practices are linked with a higher level of employee performance. Hence the study effectively contributed to the performance literature and filled the gap.

We have also established that the selected set of HPWPs enhances employee motivation and involvement. We have sufficient support from previous research that multiple HRM practices, when combined as a bundle, can bring synergistic effect on employees' motivation, involvement and performance (Ho & Kuvaas, 2020; Beltrán-Martín & Bou-Llusar, 2018; Delery & Gupta, 2016; Chapman et al., 2018). When organizations provide equal opportunities to all candidates for selection on a merit basis during recruitment and promotion-related decisions,

employees feel compelled to perform better at their workplace. Similarly, an effective and regular feedback system and access to critical information in any organization not only enhances the employees' capability to perform, but also improves their motivation to do better for the organization (Amis, Mair, & Munir, 2020). In other words, the study has reaffirmed that a bundle of HPWPs enhances employee motivation and involvement at work which ultimately augment the work performance.

All the hypotheses developed for the study were proved correct except H3 as employee satisfaction was not found to significantly mediating the relationship between HPWPs and employee performance. Previously, Greene (1972) also found similar results and indicated that a higher level of employee satisfaction was not necessarily related to high performance. Highly or over satisfied employees feel more comfortable and start taking the work for granted, and non-seriously. This can lead to an insignificant improvement in their performance. In our case, although the performance has positively increased, it was not significant. Therefore, we reject H3 and conclude that although HPWPs enhance the satisfaction level of employees, satisfaction is not significantly related to employee performance. Or we conclude that employee satisfaction does not mediate the relationship between HPWPs and employee performance.

5 Implications

5.1 Theoretical Implications

The current study enhanced the validity of Herzberg's two-factor theory and established the link between HPWP and employee performance through employee motivation and involvement. Herzberg had indicated that certain factors like rewards, workplace policies, working conditions are important to keep the employees away from dissatisfaction. But these are not the factors necessarily leading to their satisfaction at work. The current study has also established that although HPWPs play a significantly positive role in enhancing employees' job satisfaction, job satisfaction does not significantly mediate the relationship between HPWPs and employee performance. On the other hand, HPWPs lead to an enhanced level of employee motivation as well as involvement that establish a significant path towards enhancing employee performance at work. These are unique findings and lay the foundation for further exploration in the future.

5.2 Managerial Implications

The research provides reasoning to the departmental managers of HEIs to adopt a bundling approach for the implementation of human resource management practices. The study has empirically proved that HR activities like access to information, flexi hours, grievance/complaint handling system, participation in decision making, performance appraisal/feedback, recruitment & selection, reward policy, training and development and team working complement each other and should be used as a bundle to achieve a synergistic effect in terms of higher involvement and motivation leading to employee performance. On the other hand, the results also suggest that although achieving job satisfaction is important for the employees of these institutions, but too

much focus on this may not have a significant effect on performance. This finding could be specific for academia as they are required to continuously grow and develop their capabilities/knowledge and meet the pace of rapid change taking place in the knowledge economy. For them, too much satisfaction may hinder their progression leading to inertia, which is not a positive indicator for their performance.

5.3 Research Implications

The study has opened several avenues for future research. The results are specifically important for future researchers to replicate the model in some other context to revalidate the findings. Especially, it needs to be checked whether employee job satisfaction plays the role of a significant mediator in the relationship between HPWPs and employee performance with a different kind of sample or set of organizations. This is also important as the job of HoDs and faculty members is very demanding in terms of continuous growth and development. Therefore, a higher level of satisfaction may not have been required for higher performance under these circumstances. Moreover, to further test the legitimacy of Herzberg's theory (1966), future research can explore individual HPWPs along with a bundle to exactly find out as to which of the practices is more linked to a specific type of outcome (involvement, satisfaction, motivation, performance). Moreover, a serial mediation mechanism can also be tested. There are possibilities that HPWPs enhance employees' involvement which fosters their motivation, further leading to satisfaction and performance. Additionally, future researchers can also identify as which practice leads to what kind of performance, for example, contextual or task performance. This will also provide reasoning for identifying the hygiene and motivational nature of certain HR practices as provided by Herzberg's two-factor theory (1966). The path between HPWPs and employee performance can also be tested through some other employee-related outcomes like engagement, retention, and commitment in the future. We focused primarily on a set of HPWPs of HEIs. However, there is a possibility that some other HRM practices like career management/ development, management training, etc., may be included in the HPWPs bundle in the future.

The study was also subject to several limitations. We collected data for this study online as we could not travel to distant locations of HEIs under study due to geographical and cost-related constraints. The data were collected from a single source, the results may have been different if we had collected responses from subordinates. Although we checked the presence of CMB through statistical measures, yet as suggested by Podsakof et al. (2003), multi-source data could have addressed the issue of CMB even better.

6 Conclusion

The study contributes to the literature and introduces a new model where HPWPs lead to a higher level of employee performance through employee involvement and motivation. The study also establishes that employee satisfaction does not significantly contribute to enhancing employee performance as far as the selected bundle of HPWPs

are concerned. Therefore, its mediation was also insignificant. The current research established complementary mediation of employee involvement and motivation and confirmed the path between high-performance work practices and employee performance in HEIs of Pakistan.

Author Contributions:

Sajid Hussain Awan, conceived the idea and wrote the introductory part of the study and reviewed the final version.

Nazia Habib conducted the analysis of the study

Shaheryar Naveed contributed towards literature and discussion of results.

Ch. Shoaib Akhtar worked on the methodology and data collection part of the study and provided the overall review of the study.

Data Availability Statement:

The data will be available upon request.

Conflict of Interest:

There is no conflict of interest.

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Impact of Corporate Environmental Responsibility on Firms' Financial Performance: Moderating Role of Organizational Slack and Industry Competition

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Abstract

Due to brisk trade and industry expansion in the emerging economies, it is creating severe environmental corrosion. Effluence makers' enterprises are mostly responsible for environmental deterioration. Therefore, those firms' responsibility is to take steps to control this corrosion in the environment. This research explains the effect of corporate environmental responsibility (CER) on corporate financial performance (CFP) with the moderating effect of organizational slack and industry competition. Data is collected from annual reports of 50 KSE 100 index companies from 2012-2019, containing 450 observations. A dynamic panel model is used to test the study hypothesis by using Eviews. Different pre and post estimations are applied to confirm data validity. Empirical results indicate that corporate environmental responsibility has a significant positive effect on corporate financial performance, while the organizational slack's moderating effect is negative. Industry competition has a significant positive moderating effect on the relationship, i.e., if there is high competition in the industry, firms will invest more in the environment to attract more consumers and create goodwill in the market. The study reveals that firms with high competition and focus on their responsibility towards the environment.

Keywords: *Corporate Environmental Responsibility; Corporate Financial Performance; Organizational Slack; Industry Competition; Pakistan.*

JEL Code: G32, L25, D22

1 Introduction

Nowadays, when pollution in the environment is increasing day by day, the importance of environmental protection is also enhanced. But in Pakistan, different firms take corporate environmental responsibility (CER) in different meanings, but many strategies are common in CER activities implemented by many companies (Shahid, 2012; Shah, Sarfraz, & Ivascu, 2021). In Pakistan, there are significantly fewer practices adopted by companies for CER. Companies taking severe steps to protect their

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environment are considered the leading companies of Pakistan because of CER's efforts. According to Shahid (2012), the continuing commitment by businesses to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large. When trade is getting globalized, awareness for CSR is rising; further firms are adopting CSR rules. To get a standardization certificate, they invest enough money from their sales towards society and the environment. CSR is a recently launched area that still needs to be adopted rationally in Pakistan. Some researchers have shown that our country's main issue is a lack of education towards corporate environmental responsibility. Our upcoming generation is also not focusing on this issue and is only moving towards economic profit (Yunis, 2017; Sohn, Lee, & Kim, 2020). According to Clarkson (2011), enterprises doubt whether it pays to initiate CER activities since CER requires environmental investment, reducing their profits. There is also no consensus in the literature with mixed results varying from positive, negative, or insignificant. Some factors are affecting the relationship between CER and financial performance and are ignored (Khattak & Saiti, 2021). In this research, some factors like organizational slack and industry competition will be focused on how they affect the relationship of CER and a firm's financial performance. According to agency theory, organizational slack plays a significant role in corporate environmental responsibility as more resources will urge managers to use it for their self-interest rather than investing them towards the environment to reduce CER and ultimately financial performance (Shahzad, 2016; Kim & Park, 2021). According to Jan Kempera (2013), Industry competition and corporate environmental responsibility have a significant association with financial performance. Firms with high growth and high CER due to innovativeness show a more significant positive effect on financial performance. (Jan Kempera, 2013). Content analysis and empirical analysis are used in this paper to know the association between CER and CFP of KSE-100 index companies. In this paper, two moderators are also focused on seeing the moderating effect of industry competition and organizational slack on the association to give theoretical input and practical indication for the companies who should focus on the fulfillment of CER and enhance their firm's financial performance. This paper is planned as follows: The second segment possesses a literature review and hypotheses, the third segment illustrates the research design, the fourth segment shows our empirical analysis, the fifth segment provides research discussions and conclusions, and in the last segment, implications are presented.

2 Literature Review

2.1 Corporate Environmental Protection in Pakistan

In discussing the matter of corporate environmental protection in Pakistan, the matter of Pakistan environmental protection act 1997 is an important thing to mention, protecting the environment from corporate activities. The primary reason behind this act's introduction is to provide protection, conservation, rehabilitation, and improvement for Pakistan's environment. This act is there to prevent pollution and promote sustainable development and conservation of Pakistan's environment, corporate environmental protection is taken as the work of aid from the companies for

the people living in the surroundings. If a company wants to attain a competitive advantage, it is essential to do work for society and the environment. No doubt, the cost will be high in doing so. Still, it will create long-term profit for the company, which is the company's ultimate desire. Now firms are not focusing on the endorsement of their products and services only but are also focusing on environmental protection to create a positive image of their companies in stakeholders' minds (Majeed, 2015; Lee, Liu, & Yu, 2021). Now many strategies are proceeding in Pakistan's firms about economic, social, and environmental enlargement to accomplish sustainable benefit. Now a day's corporate environmental protection is also treated as an investment to get long-term benefits. Regulatory pressures on organizations compel them to consider all societal, environmental, and cultural factors: without them, they can't expect long-term improvements. These pressures force them to perform their duties (Saleem, 2014).

Every country exerts different regulatory pressures on firms to force them to work by considering their surroundings and society. For example, the US government uses the technique of authorization for the fulfillment of environmental regulations. In contrast, Canada's government uses the technique of power and command structure with a diverse coating of supervision and engaging in appeasing and counseling way of persuasion (Cameron, 1993; Li, Liao, & Albitar, 2020). Companies engage in environmental and societal analyses to avoid problems in the future. However, to lead in the industry, many firms then start imitating each other's set of laws to protect their surroundings, ultimately creating a healthy environment (Bansal, 2005). There is a vital international competitive element in environmental compliance. It is tempting for a manufacturer to operate in countries with little or no regulation. They will have lower costs. In Pakistan, many firms are playing a vital role in environmental protection. For example, Coca-Cola Company is recycling unsoiled used water (Halder, Ganguly, & Singh, 2016). It also protects the air from gasses emitted in production. While PepsiCo provides hygienic and fitness guidance, develops water-saving policies, and carries out water sanitization trials to save the environment from harmful effects.

2.2 Corporate Environmental Responsibility and Its Effect on Financial Performance

The Carroll model states that the firm's primary imperative aim is to execute its worthwhile goals, then official duties, and after that, moral and altruistic aims. When firms are involved in active CER, they fulfill a set of laws and get involved in environmental protection regulations that raise their productivity by enhancing their representation and ultimately developing a competitive advantage. The government does not resolve many social matters. Hence, firms play their role in resolving social matters and getting financial success by creating a compelling value chain, public-private joint venture, and managing resources of the environment competently (Carroll, 2003; Kiran, 2015; Khattak & Saiti, 2021). Owing to worldwide environmental transformation and ecological corrosion, surroundings get affected (Amir, Rehman, & Khan, 2020). To get good performance, CER forces organizations to adopt those measures that can protect and improve surrounding and refer them to take responsibility

for their environmental protection (Flammer, 2013; Holtbrügge, 2012; Kim & Park, 2021). According to the natural-resource-based view (NRBV), through the positive association between natural reserves and competitive benefit, organizations must give consideration to, and yield from, the growing natural ecological confronts along with fortification. If any firm is involved in affluence, it will identify that the firm is not using its resources competently and damaging its economic performance. Simultaneously, those firms who take responsible actions to control effluence are competent to lessen their operating cost (Amir & Chaudhry, 2019).

For the attainment of potential gains, CER is considered an asset. Firms who do high investments in green technologies and surrounding administration structures get high turnover as a reward and develop into a competent body in the industry (Hart, 2011; Lee et al., 2021). For supporting the business, it is necessary to manage the resources in such a way that CER make operations efficient, increase share prices, enhance the ecological status, potentially lessen allowable operating cost, enhance subsidies, enhance customers and investors and then ultimately create a competitive advantage (Shah, 2007). Different measures are being taken to control operating costs and contaminated costs, like installing hoods and using rigid glove boxes. According to Guenster (2011), intangible resources like a novelty, human resources, reputation, and customs are how firms can get an advantage from CER. It is observed that environmentally responsible firms enjoy high stock prices compared to those who do not consider the environment a responsibility (Belal, Cooper, & Khan, 2015; Li et al., 2020).

Organizations that are irresponsible towards the environment face many government fines, negative reputation, pessimistic media publicity, and customer and shareholders boycott (Flammer, 2013). For example, Nestle Company faced a business defeat, brand value beating, and low stock price thrashing in 2015 due to rumors of producing unsafe Maggy food. Because of these rumors, nestle has to face a penalty from the side of the government (Wong, 2016; Shah et al., 2021). In short, organizations should pay attention to short-term turnovers and focus on sustainability and competitive advantage by taking the responsibility of surrounding defense and effluence control as it is one of the main sources to improve financial performance and reputation in the market. Following the rules and acts of corporate environmental responsibility will give dual benefits to the firms, this will not only enhance the level of positive word of mouth and goodwill for the firm but will also promote a healthy work environment in the firm, which will in turn impact the performance of the firm positively. Based on the above discussion, the following hypothesis is derived:

Hypothesis 1: Corporate environmental responsibility has a positive and significant impact on firms' financial performance.

2.3 Moderating Role of Organizational Slack

According to Chakrabarti (2015) "Organizational slack is the pool of resources in an organization that is in excess of the minimum necessary for a certain level of

organizational output". Pool of resources make the firm able to manage the internal and external environment and make strategic decision in order to achieve the firm's objectives. If a firm has more slack then the managers treat it like a safeguard and start taking surrounding's issues as an opportunity instead of risk: they will not use resources in an efficient way and will start using it for their own interest instead of using them to increase the value of the firm (Chen, Zeng, Lin, & Ma, 2017). While agency theory gives an antagonistic view and says it is unproductive and increases agency costs. If slack is in excess then it affects environmental activities and managers do not take initiative for the value addition of the firm as they start preferring their own benefits rather than shareholder's wealth maximization (Halder et al., 2016; Wu, Liang, & Zhang, 2020). When resources are abundant then managers become risk seekers while in the presence of limited resources, they become risk reluctant (Sohn et al., 2020). If resources are abundant then managers may invest in doubtful projects like distinct mergers and acquisitions which can be harmful to financial performance. If resources are limited, then managers start avoiding unessential investments and focus on getting potential outcomes instead of loss (Ikram, Zhou, Shah, & Liu, 2019). If managers have abundant resources, then they may become more assertive and buoyant which doesn't force them to acquire tactical measures which can save them from political and societal threats. So, an association between CER and financial performance gets weakened due to organizational slack.

Hypothesis 2: Organizational slack has a negative and significant impact between the association of CER and financial performance.

2.4 Moderating Role of Industry Competition

Innovation and differentiation are the main measures of industry competition which create competition and competitive advantage for the company, no study has been done yet on this variable 'industry competition' to see that how it creates the link between CER and financial performance in the firms of Pakistan and researcher is going to analyze this linkage (Alessandri, Cerrato, & Eddleston, 2018; Zeng, Gulzar, Wang, & Zhao, 2020). Industry competition by developing a differentiated operating system to save the environment from pollution results in a positive relationship between CER and financial performance: CER greatly affects performance in less differentiated companies (Bao, Zhang, Xiao, & Hine, 2019; H. Chen, Zeng, Lin, & Ma, 2017; Karassin & Bar-Haim, 2016). Ecological performance and financial performance are strongly associated, and this relationship is moderated by industry growth, which suggests that in growing industries if performance towards environment is good then the return will also be good. Differentiated product and innovativeness depicts the company's abilities and differentiates them from other companies which then moderate the relationship between financial performance and CER (Karassin & Bar-Haim, 2016; Zhang, Wei, Zhu, & George-Ufot, 2020). According to, Syed and Butt (2017), companies which have low capabilities actually disturb firm's value as customer get dissatisfied towards them and CSR get affected. In Australia, author found that CER entails business tactics and profitable measures which are followed by companies to

fulfill their responsibilities towards environment and society as they are considered as an authentic tool to get competitive advantage in industry. He found the positive association between corporate capabilities and CER which ultimately enhance the financial performance of company (X. Chen, Yi, Zhang, & Li, 2018; Hirunyawipada & Xiong, 2018; Syed & Butt, 2017). Industry competition and corporate environmental responsibility has significant association with financial performance, firms which have high growth and have high CER due to innovativeness show greater positive effect on financial performance (Hirunyawipada & Xiong, 2018). In America, one of the researchers found CER is a key factor which enhances the value of the firm and creates competitive advantage for a firm which is linked with industry competition (Hong & Shin, 2019). So, it is hypothesized that:

Hypothesis 3: Industry competition positively moderates the relationship between CER and financial performance.

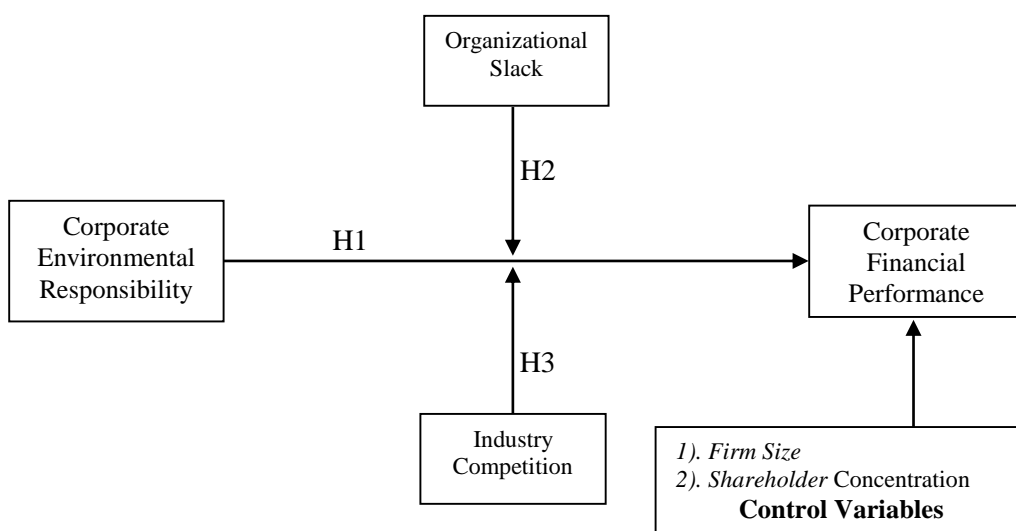


Figure 1. Conceptual Model

Above is the conceptual model of this study figure 1, the impact of corporate environmental responsibility is seen on the corporate financial performance in Pakistan. Although there are several studies that have checked the impact of corporate environmental responsibility on the corporate financial performance but there is almost no research on this issue in the context of Pakistan. Moreover, organizational slack is a significantly newly added variable, as its moderating impact is observed by the researcher. The factor of this naive moderator also adds in novelty in this study (Liu & Ye, 2017). Moreover, the variable "Industrial competition" is also taken as a moderator between corporate environmental responsibility and the corporate financial performance, this is also a variable which has not been considered in any study in Pakistan before as a moderator between corporate environmental responsibility and the corporate financial performance.

3 Research Methodology

Hypothetical point of view by Belal et al. (2015) argue that the association within CG along with FP is dynamic in nature, and hence, present firm performance is influenced by the past firm performance. Torugsa (2012) has approved that the relationship between FP and CG is dynamic in nature, as well as thus dynamic endogeneity originates within variables. In this current study, to explain the association in dynamic framework. In light of methodological choice two econometric equations are developed to test the hypotheses of the study. This model is used to defined that this will deal with the problem of heterogeneity and endogeneity dynamic, state below:

$$CFP_{it} = a_1 + B_1CER_{it} + B_2Controls_{it} + \varepsilon_1 \quad Eq. (1)$$

$$CFP_{it} = a_1 + B_1CER_{it} + B_2Moderators_{it} + B_3Controls_{it} + \varepsilon_1 \quad Eq. (2)$$

In above mention equation the subscripts "i" and "t" denotes for firm's performance (in both dimension time and cross sessional), correspondingly, the features a panel data approach. In both case in time and cross-sectional dimensions this approach will help in two ways first one is to enhance the number of observations along with the degree of freedom, second one is, to reduce the collinearity between explanatory variables (Piao, Park, Choe, & Baik, 2018). This model also helps to increase the reliability of inferences and estimations of current research when compared with previous studies, which mostly used cross-sectional data.

3.1 Samples and Data Source

The data is collected from KSE-100 index companies in which those 50 companies are selected from some specific industries for pilot testing that are very close to corporate environmental responsibility and that meet our aim and scope of our research. Names of some of those industries are power generation and distribution, fertilizers, oil and gas marketing companies, leather and tanneries, engineering, and technology & communication. Sample period for this research is 2012-2019. Non-financial firms are selected by excluding financial firms as their capital structure is different than others and their investment strategies towards environment are also different due to not involving in pollution. Data source for each variable: corporate environmental responsibility, financial performance, organizational slack, and industry competition is annual reports of all selected companies.

3.2 Variable measurement

3.2.1 Dependent variable

Corporate financial performance (CFP): Return on equity (ROE) is considered as an authentic tool to measure corporate financial performance. Like S.-H. Tan, Habibullah, Tan, and Choon (2017) used return on equity in order to see the effect of CSR on financial performance. So, the researcher has also used ROE in this paper to see the financial performance of selected firms (Vaughan & Koh, 2019).

3.2.2 Explanatory variable

Corporate environmental responsibility (CER): Many researchers used questionnaires in order to collect data for CER and they considered it the best tool to measure (Li et al., 2020; Zeng et al., 2020). But there are many scholars who preferred content analysis for measuring CER by analyzing disclosed environmental information in annual reports (Jan Kempera, 2013; Melo, 2011). For measuring CER, the basic source is analyzed from the annual report which is the amount of donation which many companies are giving towards society and the environment, in the donation amount that part is separated out which is exclusively contributed towards the environment and calculated ratio by dividing the part of environmental contribution to revenue.

3.2.3 Moderating variables

Organizational Slack: Organizational slack is separated into two types, absorbed slack which includes repair funds, inventory, payables, etc. and unabsorbed slack which includes depreciation funds, reserve funds, corporate retention, sales costs etc. In firm's performance measurement, unabsorbed slack play an important role so it is preferred (Syed & Butt, 2017). So, the natural logarithm of the current assets/current liabilities ratio is calculated out to measure organizational slack (Adeneye & Ahmed, 2015). When firms have a lower ratio then it means that they have fewer resources in their hands so they will relocate resources very carefully by analyzing all needs (Asrar-ul-Haq, Kuchinke, & Iqbal, 2017). So, in this paper liquidity ratio (current ratio and quick ratio) is used to measure organizational slack (Both absorbed and unabsorbed).

Industry Competition: Industry competition is mostly measured by many companies by analyzing earnings per share as Awan, Saeed, and Management (2015), who in their research of measuring industry competition in the banking industry used EPS (Belal et al., 2015). But many scholars used market share in order to measure competition between companies in an industry where revenue of each company is divided by accumulated revenues of all companies in an industry to calculate market share (Clarkson, 2011). So, in this paper market share is used to measure industry competition.

3.2.4 Control Variables

Firm Size: According to Meng (2014), larger firms spend more resources towards the environment, and they have strong competition, so it also affects the relationship of CER and CFP. In this paper logarithm of total assets is taken to measure firm size.

Shareholder Concentration: According to McConnell and Servaes (1990), "If the largest shareholder had higher shareholding proportion, they would have more impacts on corporate decision-making and environmental behavior, even on the level of information disclosure". Thus, shareholder concentration affected corporate environmental behavior and financial performance significantly.

4 . Empirical Findings

The descriptive analysis results in the current study show in the table 1. In this study dependent variable is CFP, the independent variable is CER, moderating variables are SC and IC respectively and control variables are SIZE and SC. First of all, range of dependent variable CFP is between -0.79 to 15.66 with an average 2.088 and standard deviation of 3.89 the results are consistent with previous study of (Chtourou & Triki, 2017). In total there are 450 observations, from which the data below is extracted.

Table 1. Descriptive Statistics

Variables	Mean	SD	Min	Max
CER (IV)	0.292	0.495	0.012	3.921
CFP (DV)	2.088	3.898	-0.791	15.66
OS (M)	1.543	0.858	0.431	5.453
IC (M)	0.374	0.385	0.011	1.756
SIZE (C)	5.310	2.374	0.626	8.571
SC (C)	0.411	0.230	0.083	0.943

Notes: CER: Corporate environmental responsibility, CFP: Corporate firm performance, OS: Organizational Slack, IC: Industrial competition, Size: Firm Size, SC: Shareholder Concentration.

The result of moderating variables; OS has an average 1.543 and ranges from 0.431 to 5.453 with standard deviation 5.453. IC range within 0.011 to 1.756 with standard deviation 0.35 and average of 0.374. The descriptive analysis values clearly mention dependent variable, independent variable, moderating variables, control variable are tested for normality based on the mean values of the data, current values clearly mention current data is normal for further analysis. The minimum and maximum values are in a valid range, whereas low standard deviation shows low level of data scattering.

Table 2. Correlation Metrix

Variables	CER	OS	CFP	IC	SIZE	SC
CER (IV)	1.0000					
OS (M)	0.4312**	1.0000				
CFP (DV)	0.2347**	0.3629**	1.0000			
IC (M)	0.1313*	0.2450**	-0.2353**	1.0000		
SIZE (C)	0.1669*	0.1932**	0.3241**	0.1694*	1.0000	
SC (C)	-0.0546	0.3620**	0.2027**	0.3860**	0.1321*	1.0000

*Notes: CER: Corporate environmental responsibility, CFP: Corporate firm performance, OS: Organizational Slack, IC: Industrial competition, Size: Firm Size, SC: Shareholder Concentration. * p < 0.01, ** p < 0.05, *** p < .001.*

The portion of the study covers the discussion which is concerned with Pearson correlation matrix. The correlation matrix outcomes of independent, dependent and control variables are summarized in the above-mentioned table 2 in the paper. The results of the above table show CER is positively and significantly related with all variable OS, CEP, IC, SIZE excluding SC it also has a natively relationship role with

CER at 1% significance level. ROE dependent variable has a positive and significant relationship with CER. The outcomes of the study show all the values are less than 10 which means it has no issues of autocorrelation.

4.1 Results of pre-estimation tests

Table 3. Collinearity statistics

	VIF	Tolerance
CER (IV)	2.037	.492
OS (M)	1.371	.491
CFP (DV)	1.696	.768
IC (M)	1.498	.348
SIZE (C)	2.477	.683
SC (C)	2.571	.583
Mean VIF	1.477	-

Notes: CER: Corporate environmental responsibility, CFP: Corporate firm performance, OS: Organizational Slack, IC: Industrial competition, Size: Firm Size, SC: Shareholder Concentration.

The outcomes of the above table show that VIF value of each variable is not greater than 10, that clearly shows that there is no problem of multicollinearity present among the variables. Abbreviations: CER, corporate environmental responsibility, OS, organizational slack, CEP, corporate financial performance, IC, industry competition, SIZE, firm size, SC, shareholder concentration, in the last VIF means that variance inflation factor.

Table 4. Model confirmation via Endogeneity Test

<i>Test of endogeneity (orthogonality conditions)</i>	
H0: Variables are exogenous	H1: Variables are endogenous
GMM C	statistic $\chi^2_{1} = 18.6487$ ($p = .0037$)

In the above table 4 the results of DWH test of endogeneity are showed. In the current study null hypothesis says that the variables are exogenous which are used in this study. The outcome of the current study cannot accept the H0 hypothesis which means that exogenous variables are used in this mode. As for the reason that we can use now dynamic panel model to control the problem of endogeneity and further source of endogeneity. GMM represents general methods of moments, DWH represents Durbin-Wu-Hausmann test.

Table 5. Regression analysis

Dependent Variable = CFP	Model 1	Model 2
CER	0.287** (0.276)	0.261** (0.476)
Size	0.183* (0.492)	0.123** (0.283)
SC	0.029 (0.687)	0.091* (0.372)
CER*OS	-	-0.119* (0.294)
CER*IC	-	0.274** (0.285)

Constant	3.278** (0.943)	0.637** (0.849)
R ²	0.618*** (0.839)	0.774 *** (0.684)

Notes: CER: Corporate environmental responsibility, CFP: Corporate firm performance, OS: Organizational Slack, IC: Industrial competition, Size: Firm Size, SC: Shareholder Concentration. * $p < 0.01$, ** $p < 0.05$, *** $p < .001$.

This study has used numerous proxies for CG (CER) and for firm performance, CFP, ROE is used and SIZE, SC is used as control variables. In this study a dynamic panel model used which also called as the two-step system GMM, as it resolves the issue of multicollinearity, to control for Endogeneity problems and also to tackle macro panel data. Table 5 shows the results of the regression analysis in this study and taken about the dependent variable ROE. Outcomes of the current study clearly show there is a significant and positive association between CER and CFP, while results also show it has no association as the moderating role of OS with CER and CEP that is similar to the theory of GMM. CG and FP are dynamic in nature which is confirmed through the significant relationship between firm performance and past firm performance. In first model, CER has a positive relationship with CFP and is significant with p value 0.287 is less than p table value. CFP also as significant with control variable Size and has an insignificant relationship with SC. In second model, CER has positive and significant relationship with the dependent variable whereas the negative and significant relationship with moderating variable OS with -0.119. the results further show CER has positive and significant relationship with dependent variable CFP and moderating variable IC with 0.274 and has less than p value 0.005 and also has standard error is 0.285.

4.2 Results of post estimation tests

Table 6. Sargan test for the validity of the model

<i>Sargan test of over-identifying restrictions</i>	
H0: Over-identifying restrictions are	$\chi^2(40) = 26.56733$, Prob. $> \chi^2 = 0.7456$
	valid

The current study performs a test to check the validity of the model. To identifying the overall restriction of the model the Sargan and Hensen test is run. H0 the null hypothesis stated that "over-identifying restrictions are valid." The results cannot reject the hypothesis for the validity of the model. Sargan test outcomes show it has an insignificant relationship with CER for (0.7456) that as per GMM theory accepts the null hypothesis.

4.3 Sensitivity and robustness

Table 7. Arellano–Bond test for the validity of regression model

Arellano–Bond test for zero autocorrelation in first-differenced errors	H0: No autocorrelation	
Order	z	Prob. $> z$
1	-2.5644	.0032

2	-0.2747	.6037
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In current study perform various test to check the sensitivity with the aim of supporting the outcomes of the current study. In this study a model was used with dependent variable that is CFP (firm performance). The outcomes of the regression analysis for dependent variable is given table 5 with the independent variable (CER) along with control variables (SIZE, SC). Regression analysis within firm performance and CG approves the significant influence of numerous CG features on FP.

5 Discussion

First, CER has positive significant relationship with CFP which is similar to previous researches like the research of Clarkson (2011) and Wong et al. (2016), while it is opposite to some researches like to Zhao and Murrell (2016) and Testa et al. (2017), they said if more resources will be used towards environment then resources of the company will get short and it will give bad impact on profit (Khattak & Saiti, 2021; Li et al., 2020). While some researchers suggest that if the company will be involved in CER then its profit be covered by long-term revenue in the form of good reputation, committed stakeholders, more investors and enhanced financial profit. Second, OS has no moderating effect on the association between CER and CFP and it is opposite to the previous researches like J. Tan, & Peng, M. W. (2003) he said that if organization has high resources then it will create agency problems and responsibility towards the environment will be ignored (Shah et al., 2021; Zeng et al., 2020). Our result is different from previous researches and the reason behind this different result can be small sample size and different country. If sample size will be greater than answer may become similar to previous researches. Third, industry competition has positive significant moderating effect on the association between CER and CFP which is similar to previous researches like Hull (2008), who said if competition is high in industry then it will urge companies to attract more customers and investors towards them which is possible if they provide convenience to them by providing safe environment and ultimately it will create long term revenue for the company (Kim & Park, 2021; Lee et al., 2021; Wu et al., 2020). So, hypothesis one has been accepted as corporate environmental responsibility has a significant positive effect on corporate financial performance. Hypothesis two has also been accepted as the moderating effect of organizational slack is negative. Hypothesis three is rejected as Industry competition has significant positive moderating effect on the relationship.

6 Conclusion

In the current era, industries and trade are expanding in the emerging economies and also creating stern environmental corrosion. Enterprises and Effluence makers are responsible for the deterioration of the environmental. Therefore, for those firm's it's a responsibility to control this corrosion in the environment take steps. This research explained the effect of CER on CFP and explained the moderating effect of industry competition and organizational slack on the relationship. For observations, by selecting 50 companies from KSE 100 index companies from 2012 to 2019 in Pakistan, it is originated that between CER and CFP there is a significant positive correlation, and industry competition has a significant positive moderating effect, while the moderating

effect of organizational slack is insignificant on the relationship between CER and CFP. On basic of the findings of the study companies invest more in environment to attract consumers it there is a high competition in the industry. To attracting more customers and retaining old one's companies perform their responsibilities towards environment.

6.1 Research Implications

This paper is showing an important contribution to the literature. Firstly, through this paper shows the importance of environmental responsibilities. Moreover, firms' contribution towards the environment also attracts new consumers and retains old and this will show major influence on the financial and non-financial performance of the firm. Secondly, this study has shown the moderating effect of industry competition which is not shown earlier in previous studies. Thirdly, this is the first study in Pakistan which has shown the relationship of CER and CFP and this topic is of great importance in our country where environmental protection is of great need in order to improve our economic profits. Results of this study are confirming that firms can achieve financial performance as well as environmental performance simultaneously. Therefore, firms should also focus on fulfilling their responsibility towards environment during achieving economic profits. Firms should initiate the program to fulfill environmental responsibility, to create corporate environmental management system and establish evaluation system for environmental performance. Firms can make department relating to environment which work for environmental defense and control. Industry competition is an important approach to develop CER in firms. Firms can compete with each other in an industry if they will not ignore environment and society in achieving their economic goals as in the world of strong competition it is very necessary for each firm to sustain their customers and it is possible if they will give satisfaction to them by contributing towards environment.

6.2 Limitations and Future Research Prospects

There are some limitations in this study. This paper only explains the associations between CER and CFP, with moderators like organizational slack and industry competition, but there are many other moderators or mediators which can be studied like CEO characteristics. Future research should focus and search for deep systems and margins between CER and CFP. This study is conducted on just 50 companies from KSE 100 index, which is unable to reveal the advancement of CER and its cost. More sample size will provide more significant and clear results.

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Impact of Globalization on Aggregate and Agricultural Employment in Pakistan

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Abstract

This study has empirically investigated the impact of globalization on aggregate and agricultural employment in Pakistan for the data period 1986-2017. Globalization is proxied by variables trade openness, foreign direct investment, workers' remittances, and exchange rate. Other explanatory variables are real GDP, gender-based wage gap, and labor force. The study has applied Johansen' cointegration technique and Error Correction Model to estimate the long-run and short-run relationships. The findings of the study indicate that in the long-run trade openness has been negative whereas FDI has a positive effect on aggregate as well as agricultural employment in Pakistan during the data period. Interestingly, exchange rate and workers' remittances affect aggregate and agricultural employment differently. Another important finding is that real GDP and gender-based wage gap also deteriorate aggregate and agricultural employment in Pakistan. The study concluded that globalization in the form of trade openness has not supported employment whereas FDI enhanced employment in Pakistan. Policymakers need to consider sector-specific effects of globalization while designing policies to achieve inclusive growth in Pakistan.

Keywords: *Globalization; Trade Openness; Employment*

JEL Code: F6, F4, J6

1 Introduction

Globalization indicators including trade openness, foreign direct investment (FDI), workers' remittances inflows, and fluctuations in the exchange rate may all affect labor markets through changing size of the labor force, aggregate employment and wages (WTR, 2017; Adao et al., 2017; Ngandu, 2009). Trade openness may result increase in demand for labor depending on whether net demand of local goods by foreigners increases as a result of openness. FDI through establishing new businesses also generates demand for workers thus increasing employment in sectors where FDI inflows. Workers' remittances inflows and exchange rate also affect employment positively or negatively depending on the composition of employment in the country. At the sectoral level, workers' remittances affect agricultural employment negatively

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due to moral hazard problems in remittances recipient families. Depreciation of local currency enhances employment in the agricultural sector due to a larger share of tradable commodities in the agriculture sector.

Pakistan is 6th most populous country of the world where more than 60 percent of the population is of less than 30 years of age and 2 million young people enter in the working-age population annually. According to Pakistan Labour Force Survey (2017-18), the overall unemployment rate in Pakistan is 5.8 percent but the unemployment rate for age group 15-24 years is more than 10 percent. To create employment opportunities for rising working-age population, the economy needs to grow consistently at the rate 6-8 percent annually. Average monthly wage of female workers in Pakistan is Rs. 7869 as compared to Rs. 12804 for male workers.

Pakistan's agriculture sector and industry jointly contribute less than 40 percent in GDP and services sector contribute more than 60 percent. Among the employed labor force (61.71 million) 38.5 percent belong to the agriculture sector, 23.7 percent to industry, and 37.8 percent to services sector of Pakistan (Pakistan Labour Force Survey, 2017-18). Table 01 shows that the total labor force increased from 28 million to 65.5 million during the period (1985-2018) thus recording 234 percent growth. Employed labor force increased from 26.29 million to 61.7 million during the same period, with growth of 234 percent. At the sectoral level, employment in the agriculture sector increased by 174.2 percent (net increase of 10.12 million) as compared to huge increase in employment in the services sector by 467.8 percent (net increase of 16.59 million).

There are many factors responsible for asymmetric employment growth in agriculture and other sectors of the economy. Globalization has also significantly contributed towards low job creation in the agriculture sector and shifts of jobs from agriculture to the services sector. Trade as a share of GDP moved from 27.7 percent in 1985 to 26.03 percent in 2018 but remained volatile during the period. Workers' remittances inflows in Pakistan significantly increased from US\$ 2.53 billion in 1985 to US\$20 billion in FY2018. FDI inflow increased to US\$ 3.5 billion in FY2018 from just US\$ 131 million in FY1985. Pak-rupee devalued against US\$ from RS15.92 in 1985 to RS164 in June 2019. In above scenario, it is pertinent to test the impact of globalization indicators on aggregate and agricultural employment in Pakistan. This would be useful for effective policy intervention to achieve the goal of inclusive and sustainable growth in Pakistan.

The current economic situation is not favorable for adequate job creation for youth bulge with domestic resources. Pakistan has signed USD \$6 billion Extended Fund Facility (EFF) program with International Monetary Fund (IMF). The major reason for signing the program with IMF was 8 percent inflation and less than 3 percent growth in FY2019. At the time of signing the program with IMF, the country had inadequate foreign exchange reserves (US\$ 8.8 billion), a volatile exchange rate approaching Rs154/US\$ on 22nd May 2019, and government borrowing from the central bank in 11 months approaching to Rs.5 trillion in FY2019. Tight monetary and fiscal policies to achieve macroeconomic stability will not be favorable for job creation due to expected

slowness in the economic activity. In these circumstances, it is very important to exploit foreign resources to create employment opportunities for the rising working-age population. To support such policies, it is important to produce empirical evidence on the impact of globalization indicators on aggregate and sectoral employment in Pakistan.

This study investigates empirically the impact of globalization on aggregate and agricultural employment in Pakistan for the period 1986-2017. In this study, the variables used to reflect the globalization status of Pakistan include trade openness, FDI, exchange rate, and workers' remittances inflows. This study contributes in the existing literature significantly by providing evidence related to the impact of globalization on aggregate as well as agricultural employment in Pakistan. In the rest of the paper, Section 02 presents a review of literature on the subject. Section 03 discusses methodology and data sources. Section 04 and Section 05 present findings and implications of the study, respectively.

Table 1. Globalization and Labor Market Indicators of Pakistan

Year	Labor Market Indicators				Globalization Indicators(% of GDP)			
	Total Labor Force (millions)	Employed Labor Force (millions)	Employed in Agriculture (millions)	Employed in Services (millions)	Trade in Goods	Foreign Direct Investment (FDI)	Workers' Remittances Inflows	Exchange Rate (Rs/US \$)
1985	28.0	26.3	13.6	4.5	33.2	0.42	8.14	15.9
1990	31.8	30.7	15.7	5.2	38.9	0.61	5.01	21.7
1995	34.2	32.3	15.1	6.3	36.1	1.19	2.82	31.6
2000	40.4	37.3	18.1	6.9	28.1	0.41	1.45	53.6
2005	46.8	43.2	18.9	8.9	35.3	2.01	3.90	59.5
2010	57.2	53.8	24.2	11.6	32.9	1.13	5.46	85.1
2015	61.0	57.4	24.3	11.5	27.6	0.36	7.12	102.7
2018	65.5	61.7	23.8	21.1	26.0	1.19	6.41	109.8

Source: Economic Surveys of Pakistan, and Labor Force Surveys (Various issues)

2 Literature Review

Both theoretical and empirical literature has identified various proxies of globalization including trade openness (measured as trade to GDP ratio, export to GDP ratio, import to GDP ratio, trade balance, terms of trade), FDI, exchange rate, remittances, and external debt. Theoretically, Heckscher-Ohlin (H-O) model is the basic tool which is used by researchers to determine the relationship between trade openness and labor market indicators. Existing empirical literature has tested the prevalence of H-O model in case of both developed and developing countries. (Elijah, 2007) estimated effects of globalization on employment and wages in Nigeria. The study found that globalization

has mixed effects (positive as well as negative) on Nigerian economies, such as the problem of income inequality has arisen and created wage gap among workers. Most of the less-skilled workers and some skilled workers have lost their jobs. On the positive side, globalization has created jobs in the informal sector more than the job loss in the formal sector. Policy implication of the study is that employees should be given training in order to assist them in sustaining their job. Moreover, Ghose (2008) investigated the relationship between globalization and employment for developing countries. The study found that in some countries globalization boosted employment and decreased productivity, while in others it has depressed employment and increased productivity growth. Globalization has systematically adverse effects on the informal sector, growth in output per worker has slowed in most of the developing economies during the period of globalization. Overall, the economies deriving positive growth effects from globalization have also received negative employment effects as well. Whereas, a few studies found that openness positively affects the relative demand for skilled workers (ASALEYE, OKODUA, OLONI, & OGUNJOBI, 2017; Charfeddine & Mrabet, 2015)

The impact of FDI on recipient economies vary from one country to the other depending upon the characteristics of the country, sectors and type of the investment inflow. (Hisarciklilar, Gultekin-Karakas, & Asici, 2014) have checked the impact of FDI on Turkish employment on 19 sectors for the period 2000-2008. The study used Panel Vector Autoregressive and Feasible Generalized Least Square (FGLS) and results revealed that FDI creates new employment opportunities but the level of job creation is too low for multiple factors including lack of structural transformation, lack of capital accumulation, uneven distribution of FDI in sectors etc. Similarly, (Mickiewicz, Radosevic, & Varblane, 2000) points out a positive relationship between FDI and employment in the Hungary, Estonia, Czech Republic and Slovakia during economic transition (1993-1996) period.

Singh and Kumar (2018) have checked whether a good or moderate inflow of FDI helps in employment generation in India for the period 2010-17. The study found that FDI helps to increase employment in the agriculture sector but at low rate. FDI does not increase employment in the manufacturing sector and in the services sector it increases employment less than 30%. (Wei, 2013) found no relationship between FDI and aggregate employment for Chinese economy. The relationship between FDI and employment by sectors differed in the primary sector where it creates jobs as compared to the secondary sector where the relationship was insignificant. In the tertiary sector, FDI and employment were found associated negatively. (Golejewska, 2002) checked the impact of FDI on sectoral employment for Poland and argued that FDI asymmetrically affects sectoral employment, on the one hand, it raised employment in glass and textile industries on the other hand it reduced employment in industries of apparel and footwear.

Most of the studies we have reviewed show the positive effect of exchange rate depreciation on employment (Hua, 2007; Ngandu, 2009; Nucci & Pozzolo, 2004), with few exceptions where (Filiztekin, 2004) has found a negative effect of exchange rate

depreciation on the employment of Turkish economy. Moreover, an overall conclusion from sectoral studies suggested that the effect of depreciation depends on the nature of the sector. Exchange rate depreciation enhances employment in tradeable sectors whereas worsens in non-tradable sectors (Ngandu, 2009).

Vast body of existing empirical literature on the effect of remittances on employment used household-level data. (Airola, 2008) found that in the case of Mexico people spent few hours in the labor market after receiving remittances. (Amuedo-Dorantes & Pozo, 2004) have suggested that there exists no relationship between hours spent by Mexican men in the labor market and remittances inflows. Kim (2007) found that remittances has deteriorated the employment situation in Jamaica. The empirical studies using macroeconomic data to assess the relationship between employment and remittances are scant. Among a few available studies, Posso (2012) has determined the relationship in 66 developing countries (including regions of Middle East and Africa, Asua, Pacific, Latin America and Caribbean). The study concluded that there exists positive relationship between remittances and aggregate employment.

Empirical literature on the effect of globalization on employment in Pakistan is emerging. (Kiren & Awan, 2018) checked the impact of FDI and Workers' remittances on employment by employing Johansen's cointegration and VECM and concluded that both have positive impact on employment of Pakistan. Similarly, (Malik, Chaudhry, & Javed, 2011) concluded that there exists positive relationship between employment and FDI, but trade openness and exchange rate negatively affects job creation in Pakistan. Moreover, (Habib & Sarwar, 2008) reached to similar conclusion by indicating positive employment effect of FDI whereas, negative affect of exchange rate on employment. Interestingly, (Rizvi & Nishat, 2009) have assessed the relationship between FDI and employment for China, India and Pakistan. The study found insignificant relationship between FDI and employment in all three selected countries.

Above reviewed literature indicates that in case of Pakistan most of the studies relating to globalization and employment were conducted for aggregate employment. Further, studies were conducted using limited indicators of globalization. In this context, the current study has contributed in the literature by producing empirical evidence for aggregate and agricultural employment using a broad set of indicators of globalization.

3 Methodological Issues

This study has augmented the model originally developed by (Bhorat, Tian, & Ellyne, 2014) to assess the impact of globalization on aggregate and agricultural employment in Pakistan. All variables in the model are in natural log form.

$$Et = \alpha_0 + \alpha_1 OPEN_t + \alpha_2 FDI_t + \alpha_3 ER_t + \alpha_4 WR_t + \alpha_5 RGDP_t + \alpha_6 WAGERT + \alpha_7 LFT + \mu_t$$

(Equation-01)

Where,

E = Employment level

EA= Employment in the agriculture sector

OPEN = Trade openness measured as trade to GDP ratio

FDI = Foreign direct investment inflow

ER= Exchange rate between Pak Rupee and US dollar

WRI= Workers' remittances inflows

RGDP= Real gross domestic product

WAGER= Ratio of wages of male and female workers

LF= Labor force

μ = Stochastic error term

The effect of OPEN on E is varying in the existing literature described through direct and indirect channels. On the direct side, demand for local goods replaced by imported goods erodes jobs for domestic workers. (Dutt, Mitra, & Ranjan, 2009) and (Felbermayr, Prat, & Schmerer, 2011) didn't find significant impact of trade openness on employment (or low effect) due to their focus on direct effect. Indirectly, cheap imported inputs cause increase in employment through production enhancement. Another positive effect of cheap imported inputs is through increase in disposable income of domestic consumers resulting increase in their spending. This leads to high demand for domestic goods thus increasing demand for labor and employment. (Caliendo, Dvorkin, & Parro, 2015) and (Adao, Arkolakis, & Esposito, 2017) concluded significant impact of trade openness on employment and wages.

There are both positive as well as negative effects of FDI on employment in host countries. Establishment of new firms create employment. Additionally, FDI might generate new jobs within relevant sub sectors where FDI is coming. Once labor demand rises with the arrival of FDI in host country, it enhances employment through multiplier effect. However, foreign firms may also replace domestic firms due to increased international competition thus no change in the level of employment, employment might be skewed, or even closure of the acquired firm may reduce employment (UNCTAD, 1994).

Literature has identified two channels through which exchange rate movements affect employment. An exchange rate depreciation enhances the export competitiveness of a particular country thus demand for labor and employment. While the second channel states that in response to the depreciation of exchange rate intermediate inputs become expensive thus offsetting the first channel. Hence, overall net effect of exchange rate

movements on employment depends upon the exposure of the firms to foreign competition (Ngandu, 2009).

There are two opposing channels, which explain how remittances affect unemployment in capital constrained market. First, one is search effect, which demonstrates that remittances tend to increase the income of unemployed recipients that leads to a decrease in search intensity of new job. However, if the tax rate on wage income received by unemployed recipients is high than the difference between unemployed and employed will decrease, causing rise in unemployment. Second effect is investment effect according to which if some of the remittances are invested then firms would have the opportunity to increase the capital stock as this credit has relaxed capital constraints. Thus, firms will expand and cause unemployment to fall. Labor effect of remittances depends upon which effect is dominant, if investment effect is more important than search effect then the remittances will have decreasing impact on unemployment (Drinkwater, Levine, & Lotti, 2003).

In the above model, impact of RGDP on employment depends on whether growth is inclusive or not. In case RGDP is not supporting creation of job opportunities then we can expect insignificant or even negative impact of RGDP on employment.

For the estimation of the above stated model, the current study used data period from 1986-2017. Data of OPEN, FDI, ER, RGDP and WRI is collected from World Development Indicators (WDI), World Bank, and data of WAGER and LF is obtained from Labor Force Surveys (LFS), Pakistan Bureau of Statistics. The limitation in selecting data up to 2017 is that Pakistan Bureau of Statistics (PBS) publishes Pakistan Labour Force Survey with a gap of one year and recent report was published for 2017-18.

4 Results and Discussion

To avoid spuriousness, we have checked the stationarity of variables before deciding a suitable estimation technique. Table 02 reports the results of the Augmented Dickey Fuller (ADF) test applied to check the stationarity of variables included in both models. Limitations and Future Research Prospects

There are some limitations in this study. This paper only explains the associations between CER and CFP, with moderators like organizational slack and industry competition, but there are many other moderators or mediators which can be studied like CEO characteristics. Future research should focus and search for deep systems and margins between CER and CFP. This study is conducted on just 50 companies from KSE 100 index, which is unable to reveal the advancement of CER and its cost. More sample size will provide more significant and clear results.

Table 2. Augmented Dickey Fuller (ADF) Test of Stationarity

	At Level	At First Difference	
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Series	With intercept	Intercept and trend	With intercept	Intercept and trend	Decision
E	-0.1244(0)	-1.9456(0)	-5.9410(0)***	-5.8743(0)***	I(1)
EA	-0.7164(0)	-2.3050(0)	-6.7202(0)***	-6.6208(0)***	I(1)
OPEN	-2.751(0)*	-2.7078(0)	-7.6852(0)***	-7.6351(0)***	I(1)
FDI	-1.2578(0)	-3.8682(3)	-5.2724(0)***	-5.1860(0)***	I(1)
ER	-2.2072(0)	-0.8031(0)	-4.6802(0)***	-4.1577(9)***	I(1)
RGDP	-1.1011(1)	-3.5351(4)	-3.6010(0)***	-3.6094(0)***	I(1)
WRI	0.5113(0)	-1.1009(0)	-4.7081(0)***	-4.9427(0)***	I(1)
WAGER	-2.5903(0)	-3.4332(1)*	-4.9735(3)***	-5.2166(3)***	I(1)
LF	0.0221(0)	-2.0624(0)	-6.5948(0)***	-6.5053(0)***	I(1)

*, **, *** indicates the level of significance at 10%, 5% and 1%, respectively. Values in parenthesis represent optimal lags in ADF selected through Schwarz Bayesian Criteria.

It can be observed from above the table that all the variables were integrated of order I(1). In presence of multiple variables in a model, having integration order I(1), Johansen's Cointegration test is considered most suitable. Based on the results produced by Johansen cointegration test (Trace and Maximum Eigen Value Tests) if variables incorporated in the model are cointegrated in the long run, then for confirmation of the long run relationship, Vector Error Correction Model (VECM) is applied. The first step in applying Johansen's cointegration test is to check optimal lag selection by applying Vector Autoregressive Regression (VAR) model. Table 03 presents results of different lag selection criteria based on VAR model.

Table 3. Lag Selection Criteria Based on VAR Model

Model 1 (E, OPEN, FDI, ER, WRI, RGDP, WAGER, LF)			
Lag Order	AIC	SIC	HQIC
0	-18.92423	-18.55780	-18.80277
1	-31.30036	-28.00245*	-30.20719
2	-33.70331*	-27.47394	-31.63845*
Model 2 (EA, OPEN, FDI, ER, WRI, RGDP, WAGER, LF)			
Lag Order	AIC	SIC	HQIC
0	-15.83856	-15.47213	-15.71710
1	-28.28047	-24.98257*	-27.18731
2	-29.96529*	-23.73591	-27.90043*

The optimal lags indicated with an asterisk (*) suggested by Schwarz Information Criterion (SIC) in both models was one whereas, Akaike Information Criterion (AIC) and Hannan-Quinn Information Criterion (HQIC) suggested two optimal lags to be included in the model. To save the degree of freedom, optimum lag selection used in the study was based on SIC.

The results of the Johansen's cointegration test based on Trace and Maximum Eigenvalue statistics are reported in Table 04. The results showed the existence of long-run cointegration among the variables in both models. For model 1, Trace test revealed 3 cointegrating equations while the Maximum Eigenvalue test indicated 1 cointegration equation at five percent level of significance. For model 2, Trace and Maximum Eigenvalue indicated 3 and 2 cointegrating equations respectively.

Table 4. Results of Johansen's Cointegration Test

Trace Test				
	Model 01: Dependent Variable E		Model 02: Dependent Variable EA	
Hypothesized No. of CE(s)	Trace Statistic	Prob.**	Trace Statistic	Prob.**
None	218.9333*	0.0000	230.1893*	0.0000
At most 1	147.9547 *	0.0011	152.5779*	0.0004
At most 2	105.3552*	0.0093	102.3265*	0.0163
Maximum Eigenvalue Rank Test				
	Model 01: Dependent Variable E		Model 02: Dependent Variable EA	
Hypothesized No. of CE(s)	Max-Eigen Statistic	Prob.**	Max-Eigen Statistic	Prob.**
None	70.97864*	0.0003	77.61141*	0.0000
At most 1	42.59948	0.1166	50.25137*	0.0177
At most 2	39.85429	0.0530	35.83051	0.1394

$$DE_t = \alpha_0 + \alpha_1 DOPEN_t + \alpha_2 DFDI_t + \alpha_3 DER_t + \alpha_4 DWRI_t + \alpha_5 DRGDP_t + \alpha_6 DWAGER_t + \alpha_7 DLF_t + \alpha_8 ECM_{t-1} + \varepsilon_t$$

(Equation-02)

Table 5. Estimation Results

Long Run Cointegration Results		
	Model 1: Dependent Variable E	Model 2: Dependent Variable EA
OPEN	-0.119 (-6.1186)	-0.108 (-4.4307)
FDI	0.074 (14.2016)	0.024 (3.6590)
ER	-0.279 (-7.0493)	0.361 (7.1281)
WRI	0.054 (6.5003)	-0.081(-7.2231)
RGDP	-0.260(-4.8877)	-0.377 (-5.5961)
WAGER	-3.406 (-13.1506)	-3.026 (-9.7868)
LF	0.245 (3.0586)	2.194 (21.3864)
Short Run Results		

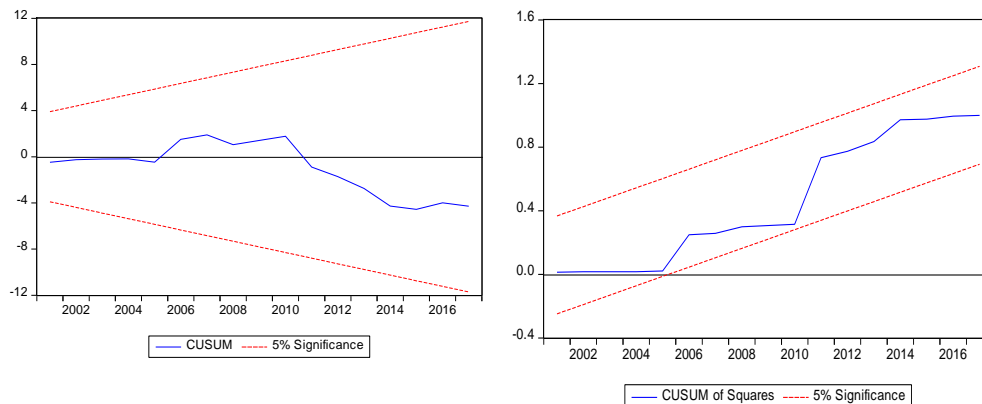
	Model 1: Dependent Variable DE	Model 2: Dependent Variable DEA
DE(-1)	0.779 (2.0302)	---
DEA(-1)	---	-0.107 (-0.7368)
DOPEN	0.105 (2.3165)	0.108 (1.3345)
DFDI	-0.037 (-2.8435)	-0.012 (-0.6106)
DER	-0.087 (-1.1320)	-0.274 (-1.7617)
DWRI	0.037 (1.8358)	0.094 (2.0161)
DRGDP	0.615 (2.1229)	-0.199 (-0.3999)
DWAGER	0.381 (0.9095)	-0.732 (-1.0183)
DLF	-1.064 (-2.2819)	-0.976 (-1.8037)
DUM1991	-0.056 (-2.9579)	-0.133 (-3.9056)
ECM(-1)	-0.59 (-3.5977)	-0.93 (-4.5459)
Diagnostic Tests		
R ²	0.591	0.711
F-statistics	3.042	5.180
Jarque-Bera Normality Test (Probability)	3.1083 (0.2113)	0.5744 (0.7503)
Breusch-Godfrey Serial Correlation LM Test(Probability)	0.3294 (0.1712)	0.2611 (0.1213)
ARCH Heteroskedasticity Test(Probability)	0.6457 (0.6322)	0.5415 (0.5257)
CUSUM	Stable	Stable
CUSUM SQ	Stable	Stable
Note: Parenthesis of Long run and Short run models contain t-values. Parenthesis of diagnostic tests contain probabilities of tests.		

Results reported in Table 05 show that coefficients of explanatory variables, in the long run, are statistically significant in both models. OPEN has a negative effect on aggregate and agricultural employment with coefficients 0.12 and 0.11. It means that aggregate and agricultural employment decreased by 0.12 and 0.11 percent respectively due to 1 percent increase in openness. This finding is consistent with (Elijah, 2007) and (Malik et al., 2011). The coefficients of FDI in both models were positive, however, their values were small. Due to 1 percent surge in FDI, aggregate employment rose by 0.074 percent and agricultural employment increased by just 0.024 percent. These results are consistent with the findings of existing literature (Habib & Sarwar, 2008; Hisarciklilar et al., 2014; Kiren & Awan, 2018).

Interestingly, ER and WRI are affecting aggregate and agricultural employment differently. Exchange rate depreciation discouraged aggregate employment; however, it had positive effect on agricultural employment during the data period. The results showed that due to one percent depreciation of Pak-rupee against US dollar, aggregate

employment reduced by 0.28 percent, whereas, agricultural employment increased by 0.36 percent. These results are supported by findings of (Filiztekin, 2004) and (Ngandu, 2009). WRI is found responsible for promoting aggregate employment while it decreased agricultural employment during data period. Due to 1 percent increase in workers' remittances, aggregate employment increased by 0.054 percent while agricultural employment fell by 0.081 percent. These results are consistent with the findings of (Chami, Ernst, Fullenkamp, & Oeking, 2018) which stated that farmers' effort towards agricultural production decrease with workers' remittances inflows.

Model 01:



Model 02:

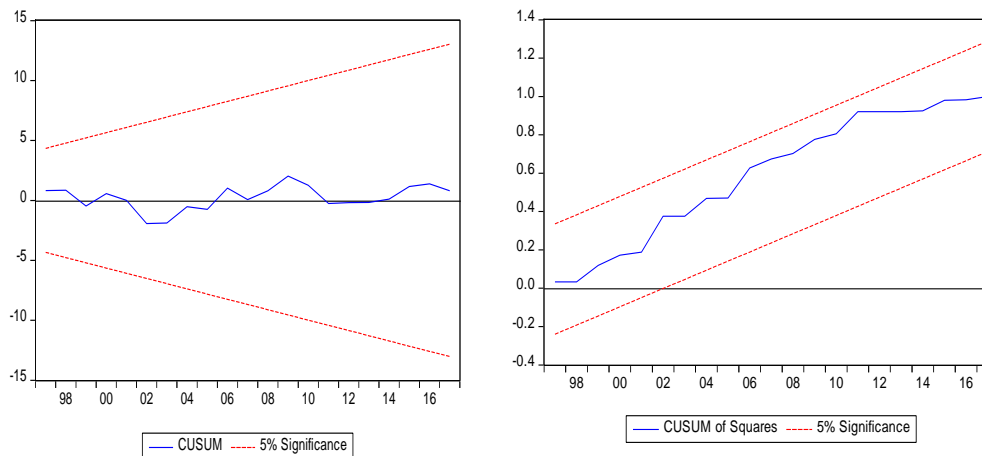


Figure 1. CUMSUM and CUMSUMSQ Tests of Model Stability

Real GDP is not supporting job creation at the aggregate level and in the agriculture sector too, which is an indication of non-inclusive economic growth in

Pakistan. The sign of coefficient of gender-based wage gap is also negative in both models showing that as gender-based wage gap increases, aggregate and agricultural employment decreases. Labor force positively affects aggregate and agriculture employment in Pakistan.

The coefficient of ECM (-1) in Error Correction Model (Equation02) reported in both models is negative and significant with value ranging between 0 and -1. This implies that error correction process converges to equilibrium with the speed of 59 percent and 93 percent in model 1 and model 2 respectively. The significance of negative coefficients of lagged error term is also considered confirmation of long term relationship.

Measure of goodness of fit (R^2) shows how much variation in the dependent variable is being explained by variation in independent variables incorporated in the model. In both models, considerable variation (59 percent and 71 percent, respectively) in dependent variables is explained by explanatory variables. F-statistics shows overall significance of the models as reported in Table 05.

Standard diagnostic tests have been applied on both models to establish the validity of estimation results. Jarque-Bera Histogram test is applied to check normality of residuals. In Table 05, values in the parenthesis of test statistics show that probabilities are greater than 0.05 thus error terms are normally distributed in both models. Breusch Godfrey test is applied to check serial correlation among errors and results show that no serial correlation is present in any of the models. Breusch-Pagan-Godfrey test is applied to examine presence of heteroskedasticity problem in estimated residuals. Results indicate that no heteroskedasticity is present in any of the model. CUSUM and CUSUM SQ tests were used to check stability of the model, results of both tests in Figure 01 show that models were stable.

5 Conclusion

This study has investigated the impact of globalization on aggregate and agricultural employment in Pakistan for the period 1986-2017. The results show that trade liberalization has a negative and significant effect on aggregate and agricultural employment in Pakistan whereas FDI has a positive and significant effect with low coefficients on both aggregate and agricultural employment. Exchange rate depreciation affects agricultural employment positively due to large share of tradeable in agriculture sector of Pakistan. Real GDP affects aggregate and agricultural employment negatively in Pakistan during the data period of the study. This shows economic growth in Pakistan is not inclusive and employment enhancing. Gender-based wage gap also affects aggregate and agricultural employment negatively showing that gender-based discrimination in the labor market is not beneficial for the economy. On the basis of the findings of the study, it may be concluded that the impact of globalization needs to be observed at a sectoral level to avoid inequality through balanced employment creation. Policymakers need to focus on agricultural employment to achieve inclusive and sustainable growth in Pakistan.

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on Globalization, Gender Based Gaps and Employment Shifts in Pakistan” conducted under the

supervision of Dr. Atif Ali Jaffri. Dr. Asad Ullah contributed in arranging literature review, formatting and

revision of the article for publication.

Data Availability Statement: The study used published time series data collected from World

Development Indicators (WDI), World Bank, and from Labor Force Surveys (Various Issues), Pakistan

Bureau of Statistics. The limitation in selecting data up to 2017 is that Pakistan Bureau of Statistics (PBS)

publishes Pakistan Labour Force Survey with a gap of one year and recent report was published for

2017-18.

Conflict of Interest: there is no any conflict of interest

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Systemic Approach to Failure Analysis: A Study of Sociotechnical Organization

Nasir Afghan¹

Abstract

The paper is an attempt to explore the systemic approach to accidents analysis within socio-technical organizations. Unsafe behaviors can result in systemic failures and accidents. The research data came from within an industrial radiography organization where a radiation source is used to detect cracks or hidden flaws within machinery and welding joints. The radioactive source can cause severe detrimental effects, even death, if not used safely. This paper is on two isolated events that happen in the same company, Industrial Services Private Limited (not real name). The company's top management was dealing with the financial crisis and to maintain the quality of its services and the safety of staff. The leadership of the company made several business and operational decisions to manage the financial crisis. During that time, several near-miss incidents took place, but the first major incident took place when the radiography gamma projector, along with the radioactive source, fell out of the vehicle because of improper back door closure of the vehicle. In the second incident, the radioactive source remained unshielded after a radiography job, this caused overexposure to radiography workers. The paper provides an opportunity to understand how an organization's leadership can create conditions for errors and mistakes that result in poor safety culture and ultimately the accident which resulted in the system failure and operation shutdown. The paper also tries to propose a conceptual framework to improve the safety culture within the sociotechnical systems for the future research in this area

Keywords: *Crisis management; leadership; systemic failure analysis*

JEL Code:

1 Introduction and Background of the Paper

The objective of this paper is to understand the systemic failure and accident within the sociotechnical (technology-focused) business organization. Case studies on systemic failures are essential to have a deeper and better understanding of the safety culture as a systemic concept (Dekker, 2011). Work culture is an emerging and dynamic concept (Reiman, 2014) which evolves from the interaction of people in working groups, within socio-technical organizations. (Vaughan, 1996) Explained this process as the production of culture. Workgroup culture and tasks related behaviors are the result of the interaction between people within the workgroups to perform technical tasks. Culture is people's way of doing things while dealing with technology and

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organizational systems (Reiman, 2014). Organizational culture belongs to the group of people working together (Schein, 1985, 2004, 2013a), “the way we do safety around here” (IAEA, 2016a). Workgroups share this common working knowledge, assumptions, norms, beliefs, and behaviors with the new workers joining the workgroup due to its practical usefulness and its effectiveness as a glue for the workgroup performance. Safety culture is well defined as a normative concept as mentioned by (Reiman, 2014). Desired safety-related behaviours, safety rules and regulations, and safety goals and objectives are normative. The set of safety standards and policies, guidelines, SOPs are defined, set before, as per the complexity of the technology, tasks and organization’s objectives and process needs. Therefore, “safety culture” has both normative dimension and emerging (culture) dimensions, which makes this concept more complex and systemic (interconnected and dynamic at system levels). Safety culture is deeply rooted and integrated within the specific sociotechnical system. Every sociotechnical complex system develops its own safety culture understanding, definition, and its useful practical implications, which may or may not have the relevance for other organizations. Also, it is also possible that having the safety culture definition and policy in the documents does not mean that the same safety culture concept is part of workgroup every day doing things and within the overall organizational working process. Hence, there are hundreds of definitions of safety culture because every sociotechnical organization and industry sector defines its own safety culture definition as per their complexities, experiences, needs, and worker knowledge and skills. Due to the systemic nature of the safety culture within the socio-technical system, one small safety violations or error could lead to a big systemic failure and big accident (Fortune, 1994, 1995). Due to the dynamic interconnections (relationships) between different components, at organization levels and due to human-technology interfaces.

Therefore, we must understand how organizational-level decisions and actions influence unsafe behaviours and create systemic failures and incidents. It is important to know, how can the small violation of safety culture in an organizational system can creates systemic failure. Rather than saying, the accident is due to the human errors or technical failures we need to understand the systemic nature of safety culture in the organization. Secondly, how to manage such a dynamic and normative concept within the complex socio-technical system? This is what we have tried to understand through this research. Furthermore, there are apparently enough definitions of safety culture, therefore no need to add one more definition. For us, safety culture within the socio-technical system must have both, desirable safe behaviours and not so desirable safe behaviours and actions, the dos and the don’ts. The logic of having this dual consideration is that work teams must set norms, assumptions, values, and behaviours that will have a positive influence on safety, as well as workgroups must clearly define relevant negative norms, attitudes, faulty assumptions, and unsafe behaviours that will have potentially negative influence over safety outcomes. Most of the time accidents are due to negative safety norms, negative values, wrong assumptions, and unsafe actions. Safety culture in organization must define what is safe and what is not safe

behaviours for everyone within high risks sociotechnical systems. There is a managerial choice, if a manager's safety culture is understanding and if his or her actions are safety positive within the sociotechnical system, safety will remain positive otherwise negative safety outcomes and accidents will happen in the organization. Work group must also be able to recognize and stop the negative safety culture, unsafe norms, faulty assumptions and poor safety behaviours before the accident.

2 The Case Study (ISPL)

After the selection of two events (which happen in the same organization) from IAEA website, the researcher conducted interviews with the radiation protection officer (RPO) within the organization. Also interviews with operational level staff members of the organization and collected details and officials report from other sources regarding those two incidents. According to one employee "there were several other small incidents in the last 15 years in our organization". However, the present paper focus is only on those two reported incidents. First, a detailed case study on the organization was completed, which provided the organizational context and the details on the actual accidents. The case study provides details on the challenges and issues faced by the management and specially the management dilemma of safety culture vs production operation within the organization. The case study development and analysis help us identify the systemic level safety assumptions and actions taken by the top leadership of the organization during the crisis.

2.1 The Case Study

Industrial Services Private Limited (ISPL name changed) started its operations in early 2007. It quickly became a renowned company for its services related to industrial radiography (IR), and other non-destructive testing. The company used to provide services not only at plants sites but also on pipelines at remote areas, throughout the country. However, the competition in the radiography services industry started to pick during 2012 and 2014 in the country. The devaluation of local currency in the country in 2015 influenced negatively on ISPL profitability. In 2015, the company was facing multiple challenges to maintaining its quality of services with the existing cost structure. In addition to this, the cost of provisions of services like price of a radioactive source, calibration of equipment, transport and other charges also increased considerably (40% increase in the last one year). Meanwhile in 2016 due to the changes in the regulatory commission national act, the regulatory commission increased the licensing fee significantly (i.e., doubled). National Radiation Protection Commission (NRPC) also implemented new regulatory and safety requirements for licensees. New safety and security requirements were introduced in accordance with IAEA (2011) safety and security standards. According to one employee "Regulator imposed more strictly regulations such as regular staff training, staff requirements in a shift, and the management and leadership for safety procedures and policies, security of the sources". Due to these regulations and external economic factors, the company was facing declining profits starting 2017. Several clients complain to the CEO that their services prices are comparatively on the higher side and if they did not reduce prices, the contract

will go to other competitors. Mr. George (CEO) shared these concerns with his top team and radiation protection officer (RPO) during the company annual strategic meeting in March 2018.

In April 2018, to manage the high costs of operations and other tax-related financial implications, the company reduced laid off 20% of workers and reduced it from total 80 workers to 65 workers. The workers who were released from the company, including the Director (Operations), radiography workers, account and HR related people. The company also adopted a policy to allocate two technical personnel for a radiography source instead of its previous practice of three (technical) persons per radiography source. The policy of three per person in a radiography operation within the industry is a “Good Practice”, however, the two-person policy was fulfilling minimally the IAEA recommendations for workforce availability at site radiography activities. According to RPO, the CEO, the director (technical) and director (finance) all felt that, apart from necessary regulatory requirements like detection equipment, personal dosimeters, transport vehicle, health surveillance, etc. many other regulatory requirements were merely a paperwork and did not contribute to improving the safety culture and personnel safety. These additional operating requirements included to have a well-established management system, positive safety culture in the organization, leadership for safety and independent safety assessments in organization etc. In addition, the top management team thought that these extra regulatory requirements were the replica of IAEA standards and were applicable only to the nuclear power industry instead of radioactive sources. The National Radiation Protection Commission (the regulator) inspectors were also softly urging the ISPL senior management, the users of radioactive sources, to apply these requirements in contrast with other strict requirements of radiation safety like equipment, calibration, dosimeter, etc.

Mr. George and his Director (Technical) Mr. Mark believed they should not be subject to these high safety requirements since they never had any accident in the company. According to RPO our CEO said, “We never had safety risks like nuclear power plants, why should we be following those policies and procedures”? The company management was reluctant to follow the recommendations, on safety culture, by the NRPC safety documents. The repair & maintenance policy was also restricted to the most important items and preventive maintenance activities were postponed reducing the operational cost. The new operational policy was implemented without any incident and employees adjusted to the situation accordingly. However, due to a smaller number of trained technical workers, there was an indication of an increase in personal radiation dose in the first few months but since the personal doses were still below the regulatory limits, the company and the shift supervisors and the senior manager did not give much attention to this issue. The average dose per worker was 8.4mSv for year 2018 in comparison with 6.7mSv per year for the past three years. With the same volume of radiation work, which indicated a decline in the occupational radiation safety procedure. However, the RPO was concerned, and he reported this anomaly to Mr. George and the Director (Technical) Mr. Mark regarding the increase in workers doses. Mr. George suggested to RPO to “increase workers incentives” if they work in extra shift to

compensate their extra efforts. On 6th Feb 2019, the RPO informed to the regulator during their inspection to the company office that one radiation worker received 8 mSv in 6 months which was considerably higher than his previous dose record for the same duration. Director (Technical) felt that this dose was still under the regulatory limits and, after some training and mentoring of that specific radiographer, he could still do the job as needed. An inspector of the regulatory body observed the record of the radiation doses during the inspection but noted no violation of regulatory requirements because the dose was still under the limits. However, the inspector indicated during his personal discussions with the RPO and he asked him to report to regulator if any “further increase in the do or any incident to NRPC without any delay” and the RPO promised to comply with the advice of the inspector. The inspector said to Mr. John (RPO) “It seems that your top management does not gives due respect to the regulator they are ignoring safety standards and they have been ignoring our feedback on declining safety again and again”.

The first incident, on 22nd Feb 2019, the company radiography team was engaged in an operation in a remote area outside the city. The team comprising of two persons, i.e. one radiographer and one Technical Assistant (TA), completed a long day job at the power plant and were returning to another location for further radiography job. The vehicle malfunctioned on the way back to the city in the midnight. One of the team members was driving the vehicle and he knew a little bit how to repair the vehicle engine. He opened the back door of the vehicle, took some necessary equipment from the rear cabin for the maintenance of the vehicle and did the repair job. After maintenance of the vehicle, the journey was a resume. Before reaching the radiography site, the radiographer checked the reading on the radiation survey meter and discovered that the projector (the radioactive source) was not present in the vehicle. He immediately recognized that the projector had fallen from the vehicle because the back door, which was not close fully after the maintenance work. The team started searching for the projector alongside the road. Meanwhile, a shopkeeper contacted the radiographer at his mobile phone and informed that the container was in his custody because his phone number post on the source container box. Consequently, the projector recovered from the shopkeeper.

The team performed a detailed radiation survey and verification of source from its pigtail number. Fortunately, everything was found satisfactory and unharmed and there was no damage found to the physical condition of the source container. In the next morning, the incident was reported to the company’s top management and the regional office of the national radiation regulatory commission. The company’s management suspended those two workers for two months. The regulatory body conducted a special inspection and instructed the company to improve safety and security standards and SOPs because as per IAEA security standard the ease of handling of these devices and their presence in vehicles outside secured facilities make them attractive for unauthorized removal. However, safe restoration of the source was a matter of relief for all parties. Mr. George and Mr. Mark believed no radiation exposure to public or

radiation workers, everything was in fine shape at the end and there was no need of any further action. In an internal meeting with the RPO and other technical field staff, the CEO and Director (Technical) decided not to report such small incidents to the NRPC in the future. According to one staff member, Mr. George said in the meeting, “we need to be more careful next time, and we need to keep these small incidents to ourselves and no need to show our weaknesses to others”. No one in the meeting, including RPO, objected or shared any disagreements with the CEO comments. They all agreed to be more careful next time and meeting was over after 10 minutes without many discussions. Around mid-May 2019, the company signed a large contract with a pipeline company for performing the industrial radiography in remote areas. The contract was tightly scheduled and complicated because of many activities on different locations in parallel, everyone was happy with this large contract.

The second incident, on November 5th, 2019, two radiography jobs were planned by RPO on the same day at two different locations (A and B) some 100 km apart from each other. The company decided to use a single team of two persons with a high activity radioactive source to perform both jobs. The RPO was a bit cautious due to high activity and briefed the team accordingly. However, he instructed the team (comprising of Mr. Michael (Radiographer) and Mr. Jack, (TA) to conduct first job early in the morning and second job in the evening on the same day and return to the city office where source storage pit was located. In doing so, the PRO planned to save any rental charges at the site B for overnight stay. RPO further instructed the team to use an old and repaired guide tube and gamma camera projector instead of the new one. The new one he planned to use for another job at a different plant site due to strict quality control measure by the other plant management. The team left the city office, early in the morning on 5 November 2019, for the radiography job at site A. The team decided that one person would do the job so that the other person could take the rest during the long day work. The first job was done in 5 hours as per schedule, the gamma camera and the guide tube did not offer any problem during the job at the site A. During the journey to the site B, they were stuck on the highway in an unusual traffic conjunction. After spending some two hours, the highway police cleared the traffic, and it was a road accident. The journey afterward to site B was also a bit slow, which further delayed their arrival at site B. One team member said to the other “in good days, this second job would have been done by other team or on next day, but prevailing financial crunch have forced us to do both jobs without any rest”. They had to perform both radiography jobs on the same day and go back on the same day and report next morning. The team arrived at site B a little late in the evening, had a quick meal, and started their job. They completed their second job before the midnight. Exhausted from the two radiography jobs and the journey, they tried to stay at the site but there were no prior arrangements for their stay and source storage. Furthermore, they tried to call the RPO who did not pick up the call from the team. Disappointed with the situation, the team decided to come back to the office late in night. They quickly assembled their stuff and put it in the vehicle. During the quick actions, they missed performing a final safety survey to ensure that the highly active radioactive source was intact in the shielded gamma projector or not. In fact, the

radioactive source was not in the projector (not shielded) and was still in the guide tube in the exposed position. The team placed all stuff inside the vehicle and drove all the way to the city office in a 3.5-hour journey. When the team reached the city office pit around early morning at 6:00 am, when they started to shift the stuff, they realized that the source was not in gamma projector. Mr. Michael, the radiographer turned on the survey meter, which showed a very high radiation reading, indicating that the source was being unshielded. Realizing the seriousness of the situation, they got scared of the high radiation level; they quickly placed all the stuff in the storage room and informed the RPO and the duty guard. The RPO responded to their call and reached the office urgently in next 30 min. The RPO restored the source from the guide tube to the gamma projector. He used only the active dosimeter in order to avoid excessive radiation dose to the passive dosimeters. In the next morning on 6 November 2019, the matter came to the knowledge of Mr. George and Mr. Mark. They decided that, since the source was intact, there was no need to inform the NRPC regarding the incident. Since, the RPO did not use passive dosimeters; there was no chance of any overexposure on his badge. They further decided to pretend that the passive dosimeters of the two working radiographers had been lost during the long journey and their recovery was not possible since they have no idea about the exact location. Mr. George (CEO) and Mr. Mark, Director (Technical) decided to cover up this incident. The two potentially overexposed persons Mr. Michael and Mr. Jack were briefed that the event took place entirely because of their mistake. To avoid further penalty, they got instructions to stay silent. The company gave them a leave until further instructions and paid them some amount for better food and medical treatment, if needed. A short while ago, Mr. Jack, TA started to feel nausea followed by vomiting and headache. Mr. Michael also felt the same condition. Both contacted with the company and the company provided them some help but they wanted better medical treatment facility, which ISPL management declined due to financial reasons.

3 Discussions

The organization's misconduct (Vaughan, 1996) starts due to competitive pressures, resource scarcity and peer pressures. These underlying conditions created production-focused behaviour and safety rules violations. The risky decisions making and accepting the risks and the normalization of deviance starts within the case organization. The organization culture becomes a task and result-oriented and “we must keep these incidents in the organization” was the cultural norms in the organization. However, top management was trying to overcome the challenge to balance the tradeoffs between safety and production. It is apparent that Safety 1st rule and production 2nd in all top-level decision and middle levels operational decision within this high risks and high-reliability organization was difficult to practice. The CEO and the top leadership were more inclined towards achieving production and financial targets. It is important for us to see how the higher leadership's decisions making influences the overall safety culture within the organization and how it influences and endangers human safety and organizational sustainability. It is also critical to understand the field technical staff dilemmas. The field technical staff are from lower hierarchy levels (high school

diploma holders) and they felt powerless. They were unable to share freely their concerns and safety issues with the senior managers during the project meetings. The case provides an evidence that lower technical workers in the organization have also no support and encouragement from the director technical and the RPO in the organization to speak out and share their concerns with the CEO and top management. The lower-level field technical staff lost interest of following safety behaviours and begin ignoring SOPs during day-to-day activities. On the other hand, during the financial crises and amidst the firing of staff, the lower-level staff members tend to keep quiet. Lower staff were following the orders in the hope of saving their own jobs. They were afraid to speak and share their views on safety-related issues not just to protect their own jobs but show loyalty and commitment to the top leadership decisions and actions.

Organizational misconduct was in full play, starting from top leadership to middle and towards the lower-level managers and staff in the organization. It seems to practicing and follows a safety culture becomes a major challenge, for the top leadership of organizations and for the middle-level managers, when the organization is under financial pressure to cut operational costs while maintaining its profitability. This is the time when managers tend to compromise the safety of staff, equipment, and environment, risking the security of radiation sources and most importantly risking overall organizational sustainability. During a financial or managerial crisis (or during management of change), the triggering action point is when the top leadership's starts using the verbal statements and comments about achieving the financial targets. As a result, the middle levels staff divert (deviance from established SOP) attention away from safety culture and safety procedures. As a result, the field and operation staff move away from safety policies, safety procedures, and already well-established safety SOPs within the workgroups. Without considering the consequences of these safety violations on the overall safety of the operations within the complex sociotechnical system. The field staff silently accepted the new orders because they perceive explicit verbal signals from the top and middle managers to just follow the new orders. To focus on performing and completing their tasks regardless of the safety concerns and outcomes. Therefore, from the systemic behaviours point of view it is important to observe how, and what statements and verbal comments made, or actions taken by the higher and middle management influence the lower field level staff's unsafe behaviours (figure 1). How comments and actions of the top and middle levels managers contribute towards creating conditions for the subsequent unsafe actions by the lower staff members. In this case the RPO and field staff's unsafe actions and subsequent the normalization of deviance (Vaughan, 1996). The examination of the case shows the strategic communication mistakes made by the CEO and the top leadership while communicating and conducting meetings before and after the project and major tasks. The top and middle levels managers ignore the safety of the field staff during the setting of operational goals and task planning.

3.1 Systemic Failure Analysis and Proposed Safety Culture Framework

This section explores further, how systemic failures happen within sociotechnical systems. According to Perrow (1984) when within the sociotechnical organizational system components are (technologies, organizations, and individuals) tightly coupled and there are high interactions between these components or subsystems, the chances of systemic failures will be higher. Even one small mistake or one error within the complex system, can cause a systemic failure (Perrow, 1984), big events have small beginnings. System accidents are due to the complexity and unanticipated (with unexpected outcomes) interaction of multiple components (two or more). The complexity in the socio-technical system is due to interaction effects between components and the dynamic relationships (Perrow, 1984). Complex socio-technical systems can create conditions that give rise to errors, mistakes and violations by the people operating within the system. If technical staff members not following the well-established operating procedures and are bypassing procedures through shortcuts, it is creating failures and accidents. Because when the system interactions are dynamic and the situation is changing fast, any small deviation from set procedures can start the uncontrollable event. Therefore, operators will be unable to control and manage such an unknown and an unexpected event.

Therefore, in the ISPL case, the over-exposure accident cannot be attributed to individual mistakes or errors by workers but rather to the dysfunction of the leadership actions and decisions. When components, such as the high risks technology, untrained and unskilled humans and poorly designed organizational procedures are in the organization it will increase complexity and possible systemic failure. It is evident from case study that the decisions making, and communication systems have dynamic relations and were influencing the staff safety behaviours. Due to this inherent complexity of technology and human behaviour interaction, unpredictability and unknown ability within the system is natural outcome. Therefore, technical staff not following SOPs in the complex systems are vulnerable to mistakes, errors and resulting accidents. Systemic failures cannot be understood by explaining individual component failure within the system. The human error alone was not the only cause of the overexposure as suggested by the CEO of the company. It was overall organizational culture for safety integrated with the goals set, communication, and other business decisions making to save the company from going bankruptcy. Moreover, incidents and mistakes were happening repeatedly within ISPL due to the preconditions of handling mistakes and complexities (Reason, 1990). Systematic accidents are the manifestation of defective organizational process and unsafe behaviours at a systemic level. Systemic failures within the ISPL happening due to the poor safety culture, decision making, not respecting the regulator, and not following standard operating procedures, ineffective communications, poor rewards and incentives, lack of leadership for safety, lack of senior managers' commitment to safety, etc. Because of these defective organizational processes, working culture behaviours of lower operational staff became deviation from safety procedures. The working conditions and workplaces become perfect for individuals and teams to make errors, violations, and mistakes. If it is a normal and accepted behaviour in the organization not to follow safety standards, and there is a lack

of safety systems, and there are no layers of correcting and stopping mistakes and errors. The organization will have an accident culture or “culture of accidents”. As we know in the case, the middle manager, RPO and field operations staff were not following safety-related SOPs and regulatory requirements, which was a clear sign of overall systemic level issues. This accident case study helped us to understand how top leadership statements and actions can influence in developing new perceptions and assumptions among the middle and lower levels staff. These lower-level staff members quickly adapted new behavior and created new working processes to perform the tasks and to achieve the results. These systemic level attitudes and norms were established in the minds of staff without any written documents. The systemic levels behaviors and actions resulted in visible mistakes, error, bypassing systems SOP, slips by the operating staff, etc. Once the staff accepted new safety-related norms and decisions, and the new safety mindset was established, a series of wrong decisions and actions both by senior and lower-level managers started. Systemic failures and accidents started to happen within the new culture of accidents.

3.2 Systemic Analysis of the Case Accident

This section provides a systemic analysis of the leadership actions to manage early events and situations that led ultimately to the major radiation overexposure accident. The first situation was when the radiation doses were increasing and one worker got higher doses, the RPO informed the CEO. The CEO then suggested some extra benefits and over time rather than seriously finding the reasons for this increase. Mr George and Mr Mark never showed any interest in knowing the root causes of higher radiation doses. They could have asked RPO and other staff members to discuss why it hopped and ask for suggestions how to manage such a situation. The staff safety and the operation safety not discussed in the meeting and no preventive actions were taken. The second event, when the source fallen out of the vehicle during driving, but the driver remains unaware of it for some time. The source was found without any loss or damage but the leadership and RPO were less interested in asking the important questions; how and why did this happen, what was the SOP? Why did our staff not follow the SOP? What can we change to improve our SOPs to stop such incidents from happening next time? Are we treating our staff well? What kind of work conditions we are providing to our staff? What is missing in work safety culture, and do we need to retrain our staff on safety? Top leadership, the CEO, and the technical director, on the other hand, were encouraging staff to cover up incidents. They wanted to keep these incidents to themselves with the mindset of ‘no need to share our weakness to others (to regulator). Top leadership were looking for these safety violations incidents from a business manager’s (CEO) point of view. CEO and top management blame field staff and saw it as an unfortunate incident due to the negligence of a few employees. CEO justified that staff just made few errors and mistakes, as an occupational hazard and it happens in all technical organizations. CEO safety assumptions and beliefs were far from positive safety culture perspectives. Figure 1 provides the link between basic assumptions and behaviors.

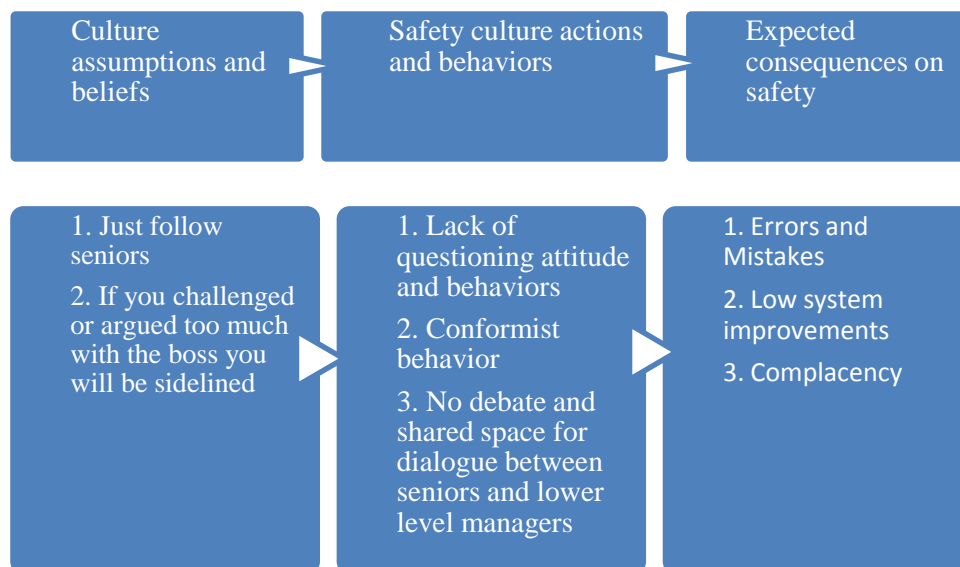


Figure 1. Link between assumptions, behaviors and consequences

The lack of safety mindfulness at top leadership and it cascaded down to the field technical staff from RPO (the middle) to lower levels. Senior management of the organization was not only disrespecting the regulator but also disregarding regulatory requirements. They were attempting to manage technical and high-risk operations with very unsafe attitude and assumptions. Leadership was more focus on the business financial side to survive by lowering the fixed costs by firing staff without realizing the consequences on safety. This is an important dilemma for all small, medium, or even large sociotechnical organizations during the economic recession. On the other hand, there is a dilemma for the regulator, how much regulatory powers to use, how tough or soft they must regulate the licensee organization especially during the financial crisis time and not to kill the business. These key decisions and situations indicate senior manager were facing systemic level issues before the staff over-exposure accident. Moreover, the importance of balancing the business goals/objectives and the task planning along with safety goals and objectives setting. ISPL top management did not define safety goals and safety behaviors during setting business goals setting and operational planning. Leadership demonstration the poor safety culture behaviors when it was needed the most to set safety first, after the loss of source incident. Leadership of the organization was not respecting regulator and licensing requirements. Senior managers were not respecting safety SOPs and safety culture norms provided by the regulator.

During the project meetings/post-project meetings staff are not allowed to share concerns, and raise relevant safety issues, which set the stage for the deviation away from safety culture. No questioning attitude and no safety culture behaviors / norms

were practice by the management and the staff during those meetings. Staff accepted orders to perform tasks without showing concern for safety and without any feedback to senior managers. Top management supporting the cover-up attitude. Which further reinforced lower staff assumptions and behaviors toward compromising safety. During performing technical tasks staff was not following SOPs and disregarding the safety requirements. Top leadership was not allowing lower-level staff to question and challenge the actions and decisions by the top leadership during the meetings. As indicated top management was keeping business goals above safety goals and regulatory requirements. Top management was ignoring small safety incidents with not reporting incidents mindset. Technical staff was just performing tasks and not contributing to improve the safety system. Top management not consider the technical staff as valuable team members. These conditions and incidents created scenario for systemic failures and accidents in organization and the figure 2 explains the process further.

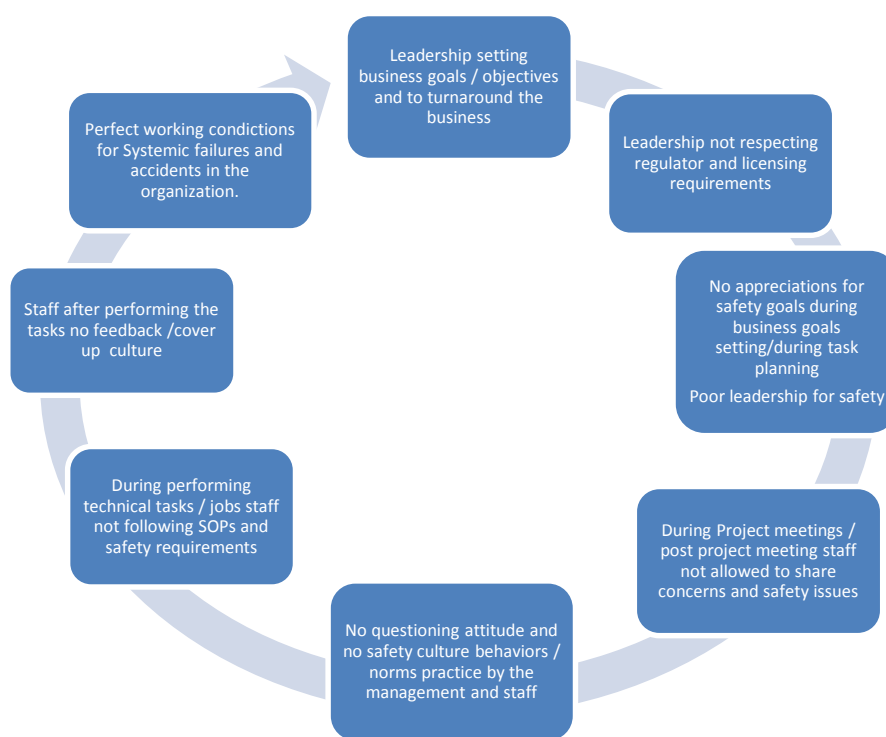


Figure 2. The Systemic process mapping of the case accident of radiation overexposure.

Vaughan (Vaughan, 1996) explains the normalization of deviance, when people in the organization become so insensitive to deviant practices that it no longer feels wrong to modify the standard work process and the working group culture. These deviant behaviors may occur due to pressure of time, cost, peer pressure or exiting design or when the correct work processes were difficult to follow. Workers justify deviant

actions as necessary to perform the task and achieve the outcomes. The new normalized behaviors are justified as under the concept of acceptable risks (Vaughan, 1996). Soon the new normal behavior becomes the work culture new norm “this is the way we do it in our unit”. The deviant behavior is set as the new workgroup standard and the new practices become the new normal. The new deviance unsafe behavior is integrated in the work process culture without a safety mindset to achieve tasks outcomes objectives set by the organization leadership. In such situations, top leadership may or may not have the knowledge about the new unsafe behaviors but in ISPL case, they had little interest in the safety outcomes. The culture is no more the safety culture when the organization or unit working culture is the culture of normalization of deviance and violations. Staff become less committed in following and practicing safety norms and standards set by the regulator or by the organization themselves. This can be due to leadership setting business and financial goals and performances targets without considering safety goals. It is due to the human capacity to adapt and change behaviors to survive in the new organizational conditions and new expectations at work (Jackall, 2010).

3.3 Safety Culture Improvements Framework: Proposed

The ISPL case has provided an opportunity for us to record (Dekker, 2011) and analyse systemic failure. How deviant behaviours are normalized (Vaughan, 1996) at system levels and result in the systemic failure. Normalization of deviance refers to a process where small changes –new behaviors, technical/physical/social anomalies or other variations that represent slight deviations from the normal course of events – gradually become the norms (Vaughan, 1996). This research suggests the framework (figure 3) for systemic failure analysis and safety culture improvements. Our analysis indicates that to understand systemic failure we must first understand the safety culture within the sociotechnical system. Safety culture is a systemic level concept, and it has both normative (safety) and emerging (culture) characteristics within sociotechnical system. Therefore, we must understand safety culture as a system-level concept, integrated within the organizational process, technology, and the people interactions. Safety culture is not just part or sub system of organizational culture. Safety Culture within high reliability and high risks organizations is a comprehensive system itself covering every aspect of organizational life. One of the observations from the case study that if top management’s decisions, actions, and statements give indications of poor safety behaviour then it would have negative multiplier effects on overall safety culture behaviours at lower levels managers. Therefore, the top and middle levels leadership and managers have major responsibility for safety culture and leadership for safety behaviours within the organization. Hence, within the high-performance socio-technical system, overall safety must be the desired objective for the organization's culture. Therefore, safety culture must provide understanding about what types of culture, behaviours, values, actions, basic assumptions, and norms will result in good safety outcomes and what types of culture, behaviours, values, actions, norms, basic

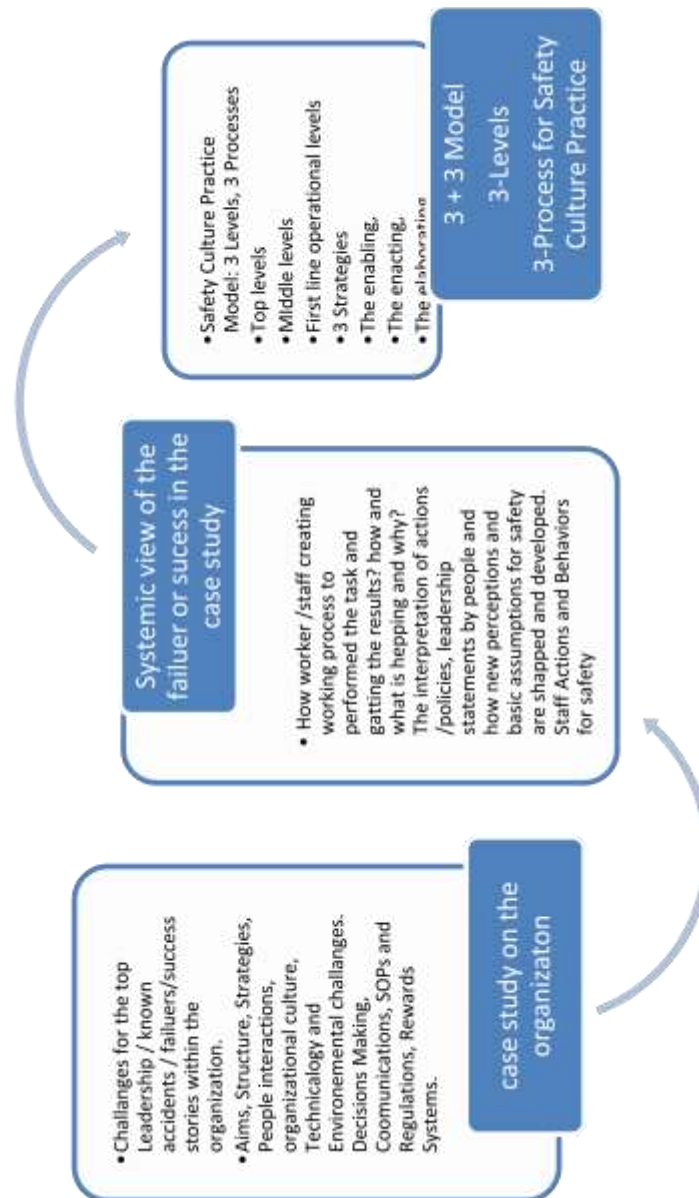


Figure 3. Three-stage approach for organizational level systemic analysis, first, development of a detail case study, secondly, systemic analysis of the case study events and third the safety culture practice and outcomes assumptions will result in poor safety outcomes and possible accidents. The analysis of the accident situation shows how small events can create system-level failures and accidents.

3.4 Safety drives in all 3 levels

The case study provides clear support that within sociotechnical systems and high-reliability organizations leadership must set clear safety goals and measurable outcomes along with every business goal and operational task. According to Schein (2010) “a leader should be creating and managing the corporate culture”. Direct attention by the CEO and top leadership towards safety culture norms and SOPs are important for middle and lower-level managers to follow. Top leadership is responsible for developing questioning culture and shared space to encourage lower staff to share concerns and opinions regarding operational safety and work process deviance. If lower and middle levels staff have no opportunity and freedom to challenge top leadership for unsafe and against SOP violations. It will be an example of leadership for safety failure and operations moving towards the systemic failures. Top leadership is also responsible for the resource allocations for safety-related activities. Leadership must also conduct safety risks or threats identification and work process risk analysis regularly. They must seek feedback and information from middle and lower levels managers if there are any deviance and process SOP violations within a working culture. Senior leadership is responsible to mobilize people and staff towards reducing those safety risks and work process violations. The role of leadership is to design socio-technical system to have the self-learning processes from mistakes and near-miss incidents. There must be an innate intelligence within the system (the self-reflection and feedback system) to improve the practice from those learnings. If there is no system intelligence of learning from mistakes and errors and improvements of policies and work process it is a leadership failure. Leadership must share learnings from incidents and accidents openly without blaming any person or team. The focus must be to improve the overall system and safety culture without focusing too much on individual mistakes and errors.

Safety Culture Practice 3 Processes (Vogus, 2010)

Three main processes of safety culture practices in organizations.

- Enabling,
- Enacting,
- Elaborating.

Enabling means communication and drawing attention towards safety-relevant aspects with the organizational culture. This process will make it possible for people to translate safety aspects into meaningful activities in their daily work context and systems. These enable conditions such as emotional and physical safety to speak up in front of others. Having the shared space where the importance of safety is acknowledged, and safety is turn into practice by acting on it. Enacting the process for the safety culture requires highlighting and accurately representing latent and manifesting all the threats to safety and indicating all the negative behaviors towards safety and working together to reduce them. Finally, the elaborating process for the safety culture means to enlarge and continuously refine practices. In this process, people rigorously are reflecting on safety outcomes and using feedback to modify enabling practices and enacting processes. These processes help people in organization to perform safer practices. When these

three process are embedded within the safety practices, it creates a coherent safety culture with sustains safety performance and helps further improve safety practices. (Vogus, 2010). Finally, the paper shows that many accidents can be avoided simply by following SOPs and allowing people to ask questions and raise issues before any new tasks or new project start-up. Only if the middle or senior managers do not rush to perform certain tasks without spending time in planning and discussing the safety implementation plan with the field and technical team staff before the task itself. It may be a good business decision, within the high reliability and high-performance organizations, where workers conduct non-destructive tests using the radioactive source as their core activities.

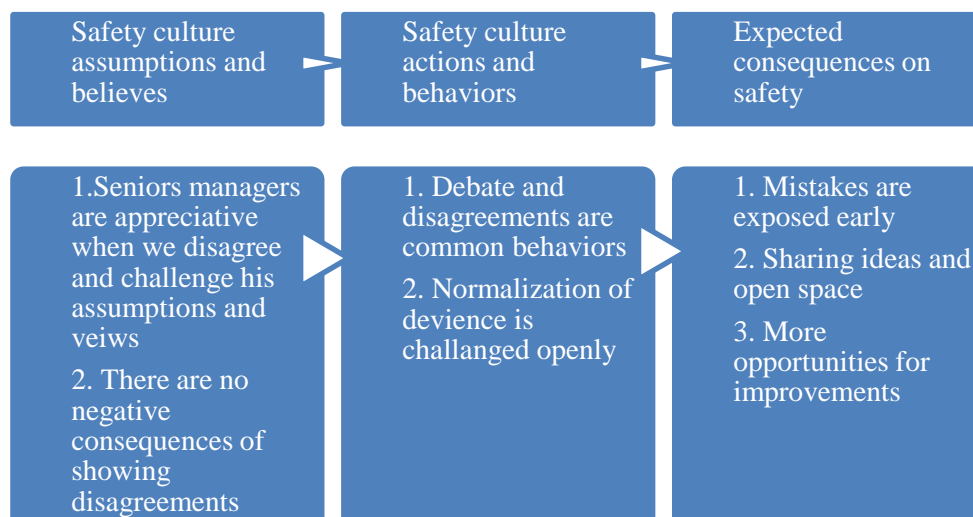


Figure 4. New assumption, new behaviours and expected consequences on performance

It is apparent that following (with commitments) the regulatory safety requirements and practicing leadership for safety are the most important functions for senior and middle levels managers in all such high-reliability organizations. Figure 4 provide the link how leadership in organization can influence the basic assumptions, behaviours, and consequences. Leadership has main task and function within high risks and high reliability sociotechnical organizations to influence towards the safety positive assumptions and safe behaviours.

This research also shows that there are always opportunities for improvements in every minor incident and from previous mistakes made in the organization. However, these opportunities for improvements will only be possible if leadership for safety is clear and committed within the organization. Furthermore, the learning from mistakes and sharing of new learning within an organization is well established and the organization's culture encourages safety culture behaviours. **If workers are not afraid to speak openly**

or are not afraid of losing jobs, there is always an opportunity to learn and improve safe work systems and to remove or stop unsafe behaviours and actions.

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Analyzing the relationship between cultural intelligence and life satisfaction: Mediating role of career engagement

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Abstract

The purpose of this article is to examine the relationship of competencies of cultural intelligence with life satisfaction of foreign expatriates who have limited mobility in Pakistan while working here. This relationship is tested with the mediation of Career engagement of the respective individuals. This will assist the understanding of the association of social knowledge of the diverse workforce and will encourage them to oversee it. Workers will feel rationally ensured and will convey results simply more inventively. The personally administered questionnaires were distributed using the snowball ball sampling technique. In total 350 questionnaires were distributed among foreign expatriates. Data were analyzed using SPSS. The results of the study conclude that the foreigners who are working in Pakistan were using their Cultural Intelligence Competencies at their workplace to be having better engagement with the career. However, the hosting companies providing resources to these expatriates so they have a high level of life satisfaction. This is noteworthy, when loaded to slight our decisions to ordinary conditions, explicitly when seeing the issues researchers can need to characterizing the key forecasters of Cultural Intelligence Competencies and life satisfaction in Pakistan. It is found from the current study that expatriates are using their Cultural Intelligence competencies and thus enhance their life satisfaction. Thus, as the organizations are working on the well-being of their employees it is the need of the hour that they should create such an environment where the well-being of the expatriate nourishes.

Keywords: Behavioral Cultural Intelligence; Career Engagement; Motivational Cultural Intelligence; Life Satisfaction

JEL Code:

1 Introduction

Universalization makes individuals progressively versatile (Collings, 2014; Mayrhofer & Reiche, 2014). Individuals these days move crosswise over geological and social limits to take up work and profession openings (Baruch, Budhwar, & Khatri, 2007).

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Expatriate, characterized as a deliberate, transitory movement of an individual to abroad for a particular reason with an extreme come back to his/her nation of origin, it is a focal piece of universal business exercises attempted by multinational organizations all-inclusive. As indicated by ongoing ILO gauges, there are 150.3 million transient laborers on the planet (Organization, 2015). Dissimilar to customary expatriate wherein associations start the move to another nation, self-started expatriate includes moving to a nation of one's decision to look for work and to set up a more steady profession (Collings, Doherty, Luethy, & Osborn, 2011). This type of worldwide portability, otherwise called self-started expatriation, is described by moving to another nation without being sent by an organization or a business (Cerdin & Pargneux, 2010).

Numerous self-started expatriates migrate and move to first world countries which we called the developed countries, for example, the United States, UAE especially Dubai, New Zealand, United Kingdom, and Australia (Doherty, 2013). But now the second world countries which we call the developing countries or the emerging economies taking developmental steps. Since it has extraordinary compared to other administrative structures, practices, and supporting institutional systems for micro-business projects on the planet, Pakistan is viewed as one of the best empowering conditions for economic growth. Thus the Pakistani government has introduced several different development projects with the collaboration of the Chinese government that leads to the hiring of foreign expatriates to Pakistan. Keeping in view, the emergence of foreign expatriates in which a major portion is Chinese workers in different development projects of Pakistan and CPEC as well that is being considered as the major boom in Pakistan's Economy and infrastructure.

For Pakistan, China-Pak Economic Corridor (CPEC) is a destiny changer that brings attraction for foreigners to work in Pakistan, though there was a limited number of foreigners who were working before due to some political, social, economic, and other issues. Be that as it may, in this recently creating relevant setting, social amalgamation rise and have huge consequences on the Pakistani work floor. The Pakistani representatives have some subjective information about the cultures of Chinese and of other nationals. However, to what degree this psychological, social knowledge related to some particular culture may impact the life satisfaction of foreigners who are working in Pakistan. This practice related to culture brought such factors that play a vital role in effective learning of individuals, which creates better chances for their survival in a different culture and their ability is recognized as cultural intelligence.

With 199 million tenants and a populace thickness of 655 thousand occupants for each square kilometer of Arable land, Pakistan is the 6th most crowded nation on the planet (Bureau, 2017). China– Pakistan Economic Corridor is a gathering of foundation extends that are presently under development all through Pakistan. Initially esteemed at \$46 billion, the estimation of CPEC ventures is currently worth \$62 billion (Corridor, 2018). As a huge number of projects started into Pakistan that leads to the high attraction of foreigners to work here as such development projects are not only beneficial for

Pakistan and China but also the neighboring countries of Asia. These projects are supervised through different regional offices like Islamabad, Lahore, and Karachi, etc.

A significant number of these self-began expatriates were crisp or some had a couple of long stretches of work involved in their countries. They referred to financial and vocation-related reasons as powerful in their choice to move and discover professions in another nation. Be that as it may, it is indistinct whether factors other than financial and profession-related reasons affected their choices. Specifically, it is obscure whether they had singular level attributes that controlled or inflame their choice to move to another country to discover better professional openings or we can state the existence fulfillment. Moreover, it isn't certain whether they had been impacted by their versatile assets or by their cultural intelligence and capacities to seek careers abroad and how they assist them with getting engaged with their professions.

In Pakistan, finding the life satisfaction level of foreign employees helps us to understand their career engagement, how utilizing motivational and cultural intelligence will contribute them to gain the maximum level of satisfaction. Taking the glimpse from such cultural practice and from the research study (Le, Jiang, & Nielsen, 2018) where the relationship of cognitive cultural intelligence and life satisfaction has been studied. According to (Presbitero & Quita, 2017), the relationship of cognitive cultural intelligence along with life satisfaction has been studied but the other dimensions of cultural intelligence need to be studied in the future in different contexts. So, this study will contribute to literature as it tells future researchers that how foreigners get attracted to work in an emerging economy of a developing country and make available new avenues in the existing literature academically. This study also aims to shed light on the life satisfaction of the foreigners who were working in Pakistan using their cultural intelligence for their career engagement.

On categorizing the aim for this research study is to find a relationship among motivational and behavioral culture intelligence with life satisfaction of foreign expatriates who are working in different organizations in Pakistan. Secondly, this study aims to examine does Career engagement mediates the association between motivational cultural intelligence and life satisfaction as well as does Career engagement mediates the association among behavioral cultural intelligence and life satisfaction.

2 Literature Review

2.1 Cultural Intelligence

Cultural intelligence is the capacity to make oneself comprehended and to make a productive joint effort in circumstances where social contrasts assume a part. It includes the capacity to act in a fitting route in multicultural circumstances combined with the capacity to have a receptive outlook that concedes new information and is interested in distinction. Usually, there are four main sub- dimensions or components of Cultural intelligence, which are as follows metacognitive, cognitive, motivational, and behavioral cultural intelligence (Van Dyne et al., 2012). Earley and Mosakowski

(2004a: 139) collaborated to offer the following definition of Cultural intelligence: “a seemingly natural ability to interpret someone’s unfamiliar and ambiguous gestures in just the way that person’s compatriots and colleagues would, even to mirror them”. In another research, Earley, and Ang, in combination with Tan, (2006: 5), extended their earlier definition in defining Cultural Intelligence as “a person’s capability for successful adaptation to new cultural settings, that is, unfamiliar settings attributable to cultural context”.

Cognitive cultural intelligence refers to the individual’s knowledge about a particular culture, metacognitive cultural intelligence refers to the individuals capacity to understand and acquire the cultural knowledge, motivational cultural intelligence refers to the person’s enthusiasm to sustain efforts for proper functioning and the last factor is behavioral cultural intelligence which is the way an individual interacts in a diverse cultural setting (Ang et al., 2015).

2.2 Life satisfaction:

Definition of life satisfaction states that “Life satisfaction is a cognitive assessment of an underlying state thought to be relatively consistent and influenced by social factors” (Ellison et al., 1989). The following variable has immense literature with different variables like life satisfaction has been studied with different organizational factors. But recently the researchers found that as the life satisfaction comes from the self-esteem and such other factors which were related to emotions.

The LS has been viewed as hostile welfare state, social expenditure has been studied as a driver of LS and found that levels of government debts has been increasing due to expense on the program for social protection (Dumbraveanu, 2015). From this we can infer that at national level LS has been a critical issue for the governments.

2.3 Motivational & Behavioral Cultural Intelligence with Life Satisfaction:

Motivational cultural intelligence (MOT) alludes to the psychological ability to coordinate and maintain vitality on a specific assignment or circumstance and perceive that motivational capacities are basic to 'genuine world' critical thinking (Ang et al., 2007). Behavioral Intelligence alludes to outward indications or unmistakable actions: what individuals do as opposed to what they think (Ang et al., 2007). The lifts in globalization and improvement of multi-national associations have delivered thought concerning the piece of worldwide/all-inclusive involvement in organization instruction. In an ongoing report on the understudies of the school who traveled to another country for thinks about, they found that fruitful experience (i.e. achievement, pleasure, individual and vocation development) of these understudies had halfway intervention of MOT in relationship with ethnocentrism and center self- assessment (Barbuto Jr, Beenen, & Tran, 2015).

Exploration has been conducted at work innovativeness of ostracizes in Chinese MNC's, expressed that metacognitive cultural intelligence and motivational cultural intelligence are without a doubt positive antecedents to social acknowledging, which

therefore emphatically relates to different social occupation creativity, especially for high region learning ousts who work in a remote culture not hugely not the same as the home culture (Xu and Chen, 2017).

Behavioral cultural intelligence recommends the outward signs or verifiable exercises: what individuals do rather than what they think (Ang et al., 2007). The social insight/cultural intelligence (CQ) has now being contemplated with various factors of HR as said above. As indicated by (Menon, 2015), four zones were distinguished for Asian investigations in which it was the proportions of CQ, the instruction on CQ, preparing of CQ, and enthusiastic work. In an exploration (Bücker, Furrer, Poutsma, & Buyens, 2014), they guaranteed that almost no work has been done on CQ and its reliant factors by tried in part. They quantified the relationship of CQ, work fulfillment, and correspondence adequacy in Chinese organizations and found that with CQ the nervousness lessened and subsequently prompts viable correspondence.

Taking the purpose of a career in an association, how the self- coordinated profession helps the existence fulfillment. As indicated by (Zhang, Hirschi, Herrmann, Wei, & Zhang, 2015) under the high level of occupation uncertainty the level of LS will be high and consequently prompted a more grounded association among them. Tourism division likewise discussed the life satisfaction in the setting of significant worth creation by the occupants, in an exploration contemplate by (Lin, Chen, & Filieri, 2017), found that advancement in tourism prompted high financial advantages which result in a positive effect on LS and esteem creation also.

Feeling weariness has been considered (Boekhorst, Singh, & Burke, 2017), when it intercedes the relationship of work power and LS, it was discovered that the workforce has a negative association with life satisfaction. Besides the mental unprejudiced nature expels the negative connection between enthusiastic weariness and life satisfaction.

Cultural intelligence has also been studied with moderating role of idiocentrism-allocentrism in MNCs culture taking work engagement as a dependent variable using conservation of resources theory (Gabel-Shemueli, Westman, Chen, & Bahamonde, 2019) and it has been found that a positive relationship exists among them as there very few studies where the motional factor-like involvement/engagement have been studied before. Thus, it has been suggested by the authors as well that other dimensions of cultural intelligence should be studied with personal engagement factors.

The researchers also studied an element related to behavioral cultural intelligence, in a research study (Charoensukmongkol & Pandey, 2020), the effect of the cultural intelligence (CQ) of salespeople, who engage in cross- cultural selling, on the quality of cross-cultural sales presentations has been studied. The research showed a significant effect of sales-efficacy that partially mediates the association of cultural intelligence and cross-cultural sales presentations.

The relationship between innovative work behaviors and cultural intelligence has also been studied, it has been found that Cultural intelligence can essentially influence a representative's inventive work conduct. It further uncovers that both work commitment and relational trust somewhat intercede the impact of social insight on imaginative work conduct (Afsar, Al-Ghazali, Cheema, & Javed, 2020). Therefore, this study proposes that

Hypothesis 1: Motivational cultural intelligence has a positive impact on life satisfaction

Hypothesis 2: Behavioral cultural intelligence has a positive impact on life satisfaction

2.4 Career Engagement as Mediator

Career Engagement is how much some person is proactively building up his or her career as communicated by assorted professional practices (Hirschi, Freund, & Herrmann, 2014). Starting late, examiners have battled that the effect of identity properties i.e., narcissism can be passed on to one's sentiment of satisfaction through the limit of calling duty. According to (Hirschi & Jaensch, 2015), found that there is a relationship of personality traits i.e. narcissism with career success mediated positively with career engagement.

In agreement with (King, 2004), expecting obligation for a person's vocation is basic to make constructive self-progression, which is found to dependably relate to calling satisfaction. From the CQ perspective, scholarly CQ to some point can be seen as a sort of mental capital that vagrants may use to oversee sudden conditions in various life settings including calling events of widespread transient representatives (Dollwet & Reichard, 2014).

Proactive people fill in as a demeanor antecedent of work duty and work responsibility mediated proactive character's relationship with work satisfaction and not completely interceded its relationship with professional satisfaction and life satisfaction (Jawahar & Liu, 2017).

Keeping this perspective; an exploration think about has been led on the educators' career engagement (McIlveen & Perera, 2016), it was discovered that identity of the instructor associated with career engagement when interceded with professional positive thinking.

Hypothesis 3: Career engagement mediates the relationship between motivational cultural intelligence and life satisfaction

Hypothesis 4: Career engagement mediates the relationship between behavioral cultural intelligence and life satisfaction

2.5 Geert Hofstede Cultural theory (Overarching theory):

Hofstede's theory depicts the impacts of a general public's way of life on the estimations of its individuals, and how these qualities identify with conduct, utilizing a structure got from factor investigation. According to theory (Hofstede, 1983), he has proposed four dimensions of culture that affects individual psychology which he named as power distance (the degree to which the members of a society accept the culture of unequal distribution of power in the society, it usually has the steep hierarchy), uncertainty avoidance (the degree to which members feel uncomfortable with risk and uncertainty), individualism v/s collectivism (the extent to which people are supposed to take care of themselves leads to individualism however they collectively look after each leads to the collective culture of the society) and masculinity v/s femininity (In masculinity, cultures emphasize more on three things i.e. achievement, assertiveness, and material success. Where we talk about the femininity it emphasizes on modesty, caring and quality of life). The current study takes the reference of Hofstede's 1983 theory as it is found more suitable with the variables under the current study.

2.6 Conceptual Framework

The following figure 1 illustrates the conceptual framework of this study. The relationship between motivational and behavioral cultural intelligence is initially investigated with life satisfaction, which is later followed by the testing of mediating role of career engagement for foreign expatriates in Pakistan.

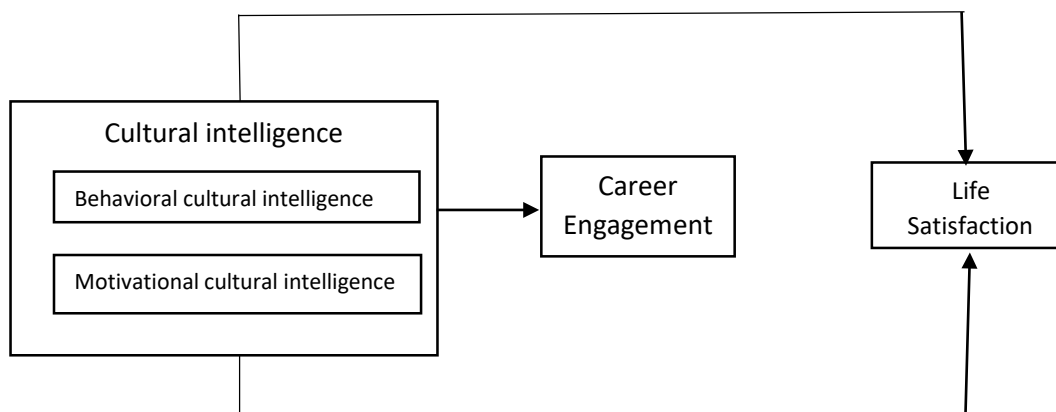


Figure 1. Conceptual Framework

3 Methods

3.1 Sample and data collection

To test the hypothesis of the current study, this research study was directed in two big cities of Pakistan Islamabad and Lahore focusing on the organizations where the nonnatives are working predominantly like IT organizations in Islamabad and assembling ventures in Lahore. As the nonnatives are confronting constrained

versatility in Pakistani zones and are staying with strict tenets and controls alongside the security concerns. So despite confronting every one of the difficulties do they feel happy with their lives and how the social standards and qualities influence their life fulfillment. Using G*Power 3.1.9.2, the sample size determined using two predictors we have 74 in number the sample for the study. So the questionnaires were distributed using the snowball sampling technique. Around 350 questionnaires were distributed out of which we have received 165 back from different employees of private organizations. Approximately Seventy percent (70%) were males and thirty percent (30%) were females. The participants were sampled from a population of employees who were working on different development projects in Lahore and IT-based companies in Islamabad. Due to the legal and security concerns of the foreigners, the appointments were first taken through emails, and after that, the researchers met them, moreover, the researchers used referrals who were working with them and collect data from them as well.

3.2 Survey development & Pilot testing

An overview instrument was at first created and pilot testing with a small number of foreign expatriates working in Islamabad (n = 15). This was to enable the analysts to guarantee that the inquiries, things, and language of the overview were proper and clear to the objective respondents. After the pilot testing, it was shown that the research study was understandable and clear to the respondents, and effortlessly comprehended by the foreign expatriates in Pakistan.

The survey was controlled utilizing a pen and paper approach. The survey, which was directed by one of the researchers, was first given morals endorsement by the workers. The morals endorsement required de-recognizable proof of the individual data of respondents, and additionally deliberate involvement in the research survey. Henceforth, in the initial area of the survey, the general points and objectives of the research study were mentioned together. Additionally, the members were requested to sign the informed agree segment to show their willful cooperation in the investigation.

The response for all variables utilized are measured against a 7-point Likert scale (where 1 = strongly disagree, and 7 = strongly agree.). The questionnaires clearly stated that all the particulars gathered from them should be kept confidential and used for academic research study only. The sources that are used in the study are mentioned in the table.

Table 1. Measure

Construct	No of items	Source	Example items
Motivational cultural intelligence	5	Ang et al. (2007)	“I enjoy interacting with people from different cultures”. “I am confident that I can socialize with locals in a culture that is unfamiliar to me”
Behavioral cultural intelligence	5	Ang et al. (2007)	“I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it”. “I use to pause and silence differently to suit different cross-cultural situations”.
Life satisfaction	5	Diener, Emmons, Larsen, and Griffin (1985)	“In most ways, my life is close to my ideal”. “The conditions of my life are excellent”.
Career engagement	9	Hirschi et al. (2014)	“Actively sought to design your professional future”. “Undertook things to achieve your career goals”.

4 Results:

4.1 Descriptive and correlation Analysis

As shown in the table, for independent variables motivational cultural intelligence and behavioral cultural intelligence, we have their mean value as 5.7107 and 5.5113 respectively, which shows that the respondents are above average a gree on the scale of MCI and BEH. From this, it is also shown that most of the expatriates are using their cultural competencies on the Pakistani Work floor.

Likewise, for our dependent variable life satisfaction, we have the mean value 5.2685 and its standard deviation value as .87130 which also gives us a view that the majority of the expatriates had a good level of life satisfaction. And for the case of our mediator, career engagement we have its mean value of 5.8396 which shows a good level of the agreeableness of the expatriates with their career at their workplace. The table below shows the values of correlation between IVs, DV, and mediator.

Table 2. Descriptive and correlation analysis

Constructs	N	Alpha	Mean	SD	Motivational Cultural Intelligence	Behavioral Cultural Intelligence	Career Engagement	Life Satisfaction
Motivational cultural Intelligence	248	0.827	5.7107	1.00	1			
Behavioral Cultural Intelligence	248	0.884	5.5113	0.85	.755**	1		
Career engagement	248	0.941	5.8396	0.77	.688**	.614**	1	
Life satisfaction	248	0.820	5.2685	0.87	.257**	.270**	-0.034	1

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

4.2 Reliability analysis

Conferring to Hair et al. (2006) reliability measures the internal consistency of the construct. The following table 2 confirms that all the constructs showed an acceptable level of reliability under the recommended value of alpha 0.70 (Hair et al. 2006).

Table 3. The Mediating Role of Career engagement on Motivational Cultural Intelligence and Life Satisfaction

	β	t	P
Motivational cultural intelligence career engagement (a)	0.5868	14.8871	0.0000
Career engagement life satisfaction (b)	-0.4523	-4.9548	0.0000
Motivational cultural intelligence life satisfaction (c)	0.2466	4.1751	0.0000
Direct effect (c')	0.5121	6.5809	0.0000
Bootstrap result(sample size 5000) for	Indirect effect		0.0000

Indirect effect with 95% confidence interval	-0.2654	
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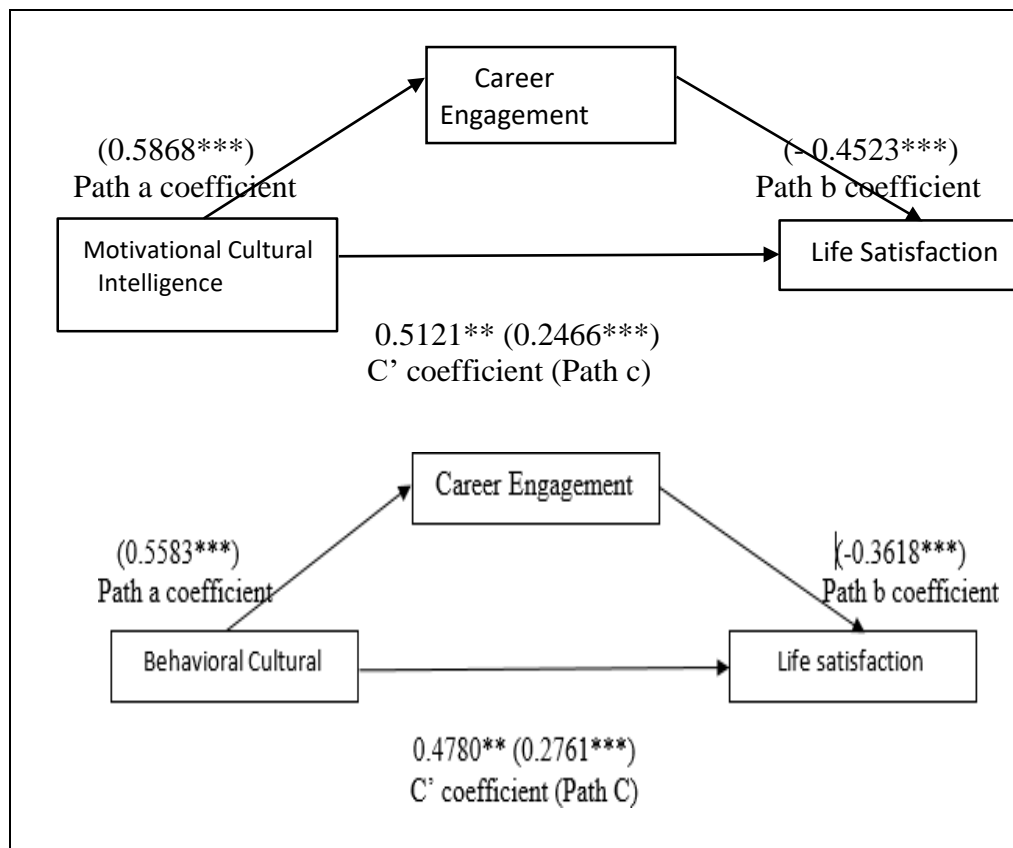


Figure 2. The Mediating Role of Career Engagement on the relationship between Motivational Cultural Intelligence and Life Satisfaction b) The Mediating Role of Career engagement on Behavioral Cultural Intelligence and Life Satisfaction

4.3 Regression Analysis

The table above is representing the path effects of motivational cultural intelligence and life satisfaction via career engagement as a mediator. Firstly, path ‘a’ showed a positive and significant relationship between Motivational cultural intelligence and Career Engagement ($\beta=0.5868$, $p=0.0000$). Moving to path b; a negative but significant relationship exists among the Career Engagement and Life Satisfaction ($\beta=-0.4523$, $p=0.0000$). Lastly, path c is showing the significant value between Motivational cultural intelligence and Life Satisfaction ($\beta=0.2466$, $p=0.0000$). (hypothesis 1)

Both path (a) and path (b) were significant, the mediation analysis was tested using the bootstrapping method with bias-corrected confidence estimates (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2004). In the present study, the 95% confidence interval of the indirect effects was obtained with 5000 bootstraps resamples (Preacher & Hayes, 2008).

The results of the mediation analysis have confirmed the mediating role of career engagement in the relationship of motivational cultural intelligence and life satisfaction ($\beta = 0.2654$; bootstrap results of the indirect effect). Adding to this, the results indicated that the direct effect of motivational cultural intelligence on life satisfaction became significant ($\beta=0.5121$, $t = 6.5809$, $p = .0000$) c' path, when controlling for career engagement, thus resulting in partial mediation. (hypothesis 3)

The table above is representing the path effects of behavioral cultural intelligence and life satisfaction via career engagement as a mediator. Firstly, path 'a' showed a positive and significant relationship between behavioral cultural intelligence and career engagement ($\beta=0.5583$, $p=0.0000$). Moving to path b; a negative but significant relationship exists between career engagement and life satisfaction ($\beta=-0.3818$, $p=0.0000$). Lastly, path c is showing the significant value among behavioral cultural intelligence and LS ($\beta=-0.2761$, $p=0.0000$). (hypothesis 2). Both path (a) and path (b) were significant, the mediation analysis was tested using the bootstrapping method with bias- corrected confidence estimates (MacKinnon, Lockwood, & Williams, 2004; Preacher & Hayes, 2004). In the present study, the 95% confidence interval of the indirect effects was obtained with 5000 bootstraps resamples (Preacher & Hayes, 2008).

The results of the mediation analysis have confirmed the mediating role of career engagement in the relationship of motivational cultural intelligence and life satisfaction ($\beta = 0.2020$; bootstrap results of the indirect effect) Adding this, the results indicated that the direct effect of motivational cultural Intelligence on life satisfaction became significant ($\beta=0.4780$, $t=6.2170$, $p=0.000$) c path when controlling for career engagement, thus resulting into partial mediation (hypothesis 4).

Table 4. The Mediating Role of Career engagement on Behavioral Cultural Intelligence and Life Satisfaction

	β	T	P
Behavioral cultural intelligence → career engagement (a)	0.5583	-12.2072	0.0000
Career engagement → life satisfaction (b)	-0.3818	-12.2072	0.0000
Behavioral cultural intelligence → life satisfaction (c)	0.2761	4.3978	0.0000

Direct effect (c')	0.4780	6.2170	0.0000
Bootstrap(sample size 5000) result for Indirect effect with 95% confidence interval	Indirect effect		0.0000
	-0.2020		

5 Discussion

The prime focus of this section is to explain the results of the developed hypothesis for the current study. As the study tried to find out the impact of motivational cultural intelligence and behavioral cultural intelligence on the life satisfaction of the foreign expatriates who were working in Pakistan. Moreover; does career engagement affect the relationship of the above-mentioned variables when it acts as a mediator? For this, the PROCESS Method by Andrew F. Hayes has been used to test the hypothesis.

The results of our first objective of the study show that the life satisfaction of the foreigner who was working in Pakistan get affected by the motivational cultural intelligence as the individuals enjoyed interacting with the people of different cultures. The findings are similar to the results of the previous study (Le, Jiang, & Nielsen, 2016) where cognitive cultural intelligence was found to have a significant relationship with the life satisfaction of the migrants' worker. Foreign expatriates use their capability of motivational culture while working in Pakistan and it facilitates them to have a good level of life satisfaction despite having limited mobility and other protocols both the variables under study have a positive and significant relationship among them and led us to accept the first hypothesis of this study.

The second hypothesis is also accepted in light of the above data analysis. The results have shown that a significant and positive relationship existed among behavioral cultural intelligence and life satisfaction of the foreign expatriates. It has been proved that the individuals change their verbal and non-verbal behavior when an inter-cultural gathering demands from them i.e. at the Pakistani work floor they respect and practice the norms, values of the host country nationals which result in strong bonding among individuals. The study has shown that like cognitive cultural intelligence the other dimension of cultural intelligence i.e. behavioral cultural intelligence has a positive and significant relationship with life satisfaction (Le, Jiang, & Nielsen, 2018).

The third hypothesis that deals with mediating effect of career engagement with motivational cultural intelligence and life satisfaction showed a significant relationship

using bootstrapping technique. The results have shown negative mediation among the variables, which showed that the mediating variable i.e. career engagement increased its effect when involved among motivational cultural intelligence and life satisfaction of the foreign expatriates. The researchers (Luke, 2015) used to term this effect as suppression. As the traditional use of mediators was found to decrease the effect but here the results have shown that career engagement increases its mediating role among the aforementioned variables.

The results have shown that the fourth hypothesis of this study has been accepted as career engagement mediates the relationship of behavioral cultural intelligence and life satisfaction of the foreigners who were working in Pakistan. The relationship among the variables is significant. The results have shown that like motivational cultural intelligence, career engagement negatively mediates the relationship between behavioral cultural intelligence and life satisfaction. According to a research study (Le et al., 2018), career engagement mediates the relationship of cognitive cultural intelligence and life satisfaction when social injustice moderates the relationship. Thus, the current study confirmed that career engagement affects the relationship of life satisfaction with other dimensions of cultural intelligence i.e. motivational and behavioral cultural intelligence which have been studied in this study.

5.1 Practical implications of the study

It has been found from the current study that expatriates are using their Cultural Intelligence competencies and thus enhance their life satisfaction. Thus, as the organizations are working on the well-being of their employees it is the need of the hour that they should create such an environment where the well-being of the expatriate nourishes.

This study helps the organizations in developing more effective policies for their overseas employees and can effectively engage them at the workplace, by showing the importance of the CQ role in getting a high level of life satisfaction.

The organization needs to arrange some activities that can enhance the life satisfaction of the foreign employee as the results showed indirect mediation with a significant relationship between career engagement and life satisfaction. Thus, the context of the activities should be like that it affects life satisfaction in such a manner that it can decrease that indirect effect. This study also let the

organizations know about the enhancement of adaptive and contextual performance of their foreign employees. Experiential learning of the employees also gets improved when the organizations gave international assignments to their employees. This study will help to understand the cultural amalgamation at Pakistani work floor which has been studied very little before especially for the foreigners who work there, Thus, the reader can get an insight into the competencies of cultural intelligence and HR practices. This study will also contribute to the literature of life satisfaction of foreign expatriates

with motivational and behavioral cultural intelligence with respective to Pakistani context.

5.2 Contribution of the study

This study will contribute to the existing literature on CQ and life satisfaction by identifying new horizons for future research in Pakistan and can be adopted as a piece of guidance to the Pakistani business owner to maintain a diverse workforce by taking care of their life satisfaction via career engagement by providing them social justice. Workers will feel rationally secured and will convey results simply more innovatively. By this examination think about, the associations can attract a more viable workforce as a more tried and true relationship in labor laws and legal and moral attributes. In the proximity of result masterminded culture, delegates will get a chance to make their occupations in fascinating ways.

6 Conclusion:

The researchers of the current study are quite confident about the optimistic future of the CQ competencies with Life satisfaction in our country. As Pakistan is moving towards new horizons of success in which it gets support to excel from the neighboring country China, several projects have been started

Under CPEC or other development projects. But, this is the start for the Pakistan people and they also need to know CQ. From the current findings, the results are above average which can be improved over time. Career engagement with life satisfaction needs more attention in Pakistan to be focused on by the employers while using CQ competencies. But what matters is that;

- Do the employers give importance to CQ at their workplace?
- Does the parent company providing resources to the expatriates in the host country i.e. Pakistan to have the maximum level of life satisfaction?
- Are our HR sections fully involved during the employee strategic planning process?

As the international companies now focusing on psychological HRM, the soft side of HRD to excel and improve their workplace for their employees. Pakistan needs to focus on this, it is time to move ahead and learn about the international HR practices with implementation at the workplace using the CQ. In this way, a more effective diverse workforce was maintained.

6.1 Limitations and directions for future research

Following limitations were faced by the researchers, firstly the sample size of the study is less in number as the respondents were foreign expatriates and due to security concerns, they were not easily assessable. Secondly, the study is cross-sectional as the

data was collected in one shot but if the study is longitudinal we can get more reliable results as compared to the current study. Thirdly, as the security concerns were high so the appointment to fill up the questionnaire was done through email and some organizations replied and give us an appointment but one of them had the questionnaires but didn't give us back.

For future researchers, it is recommended to target the big number of foreign expatriates who are working under different projects like CPEC, etc. The researchers can conduct this study in time lag to get more realistic results. Different moderation and mediation can be used such as language ability, employee value proposition as a mediator, and perception of organizational politics as a moderator between cultural intelligence and life satisfaction.

Author Contributions:

Mr. Sharoon Faran: The main idea of research paper is contributed by first author and he has written the research questions, introduction, literature review and conceptual framework.

Dr. Ghulam Dastgeer: The second author of research paper has analyzed the data by using SPSS, and has also contributed in interpreting of results.

Ms. Sidra Akhtar: The third author of paper has collected data from respondents, prepared data set and contributed in writing the conclusion, discussion section of research paper and provided the overall review of the study.

Data Availability Statement:

Yes, collected data is available in the shape of data set.

Conflict of Interest:

There is no conflict of interest.

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