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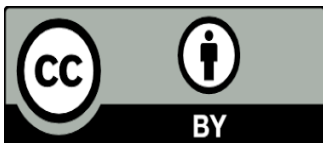
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Sarhad Journal of Management Sciences (SJMS) is the 2nd academic and research journal of Sarhad University of Science and Information Technology, Peshawar, Pakistan. The journal has an established peer-review process for quality evaluation. The journal is published biannually. It welcomes academic and research contributions from scholars, researchers, and academicians across the world in the discipline of Management Sciences.

Objectives of the Journal

The Journal has the following objectives:

- ► To provide a platform to scholars, researchers, and academicians for sharing and enriching their knowledge;

- ► To contribute in the promotion of research culture in the country;

- ► To explore new vistas in the field of Business and Management;

- ► To facilitate scholars and researchers in their research endeavour to contribute quality research and to publish their ideas, results and findings; and

- ► To promote quality research culture compatible with international standards.

Scope of the Journal

The journal solicits research work related to the discipline of Business and Management. The journal welcomes unpublished, original research papers, review papers, research survey and even tutorials. Authors are responsible for the reliability and validity of the contents of their research work. Editors and publisher are not accountable in this regard.

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EXAMINING THE INFLUENCE OF AFFORDABILITY AND ACCESSIBILITY ON TOURIST DELIGHT

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Abstract. *The objectives of the study are to assess the relationship and significant influence of affordability and accessibility on tourist delight taking into account the mountain areas of Khyber Pakhtunkhwa province, Pakistan and tourists who visit these sites. This is a survey type quantitative research. Data has been collected through the questionnaires from the selected population. Stratified and convenience sampling techniques are being employed. Sample comprises of respondents from three main regions/strata consisted of Malakand division, Mansehra division and Galiyat region of Khyber Pakhtunkhwa and from each stratum data were data collected using the convenience sampling technique. The Structural Equation Modeling (SEM) was used to test relationship between variables of the study on Smart PLS 4. Results of the study show that the affordability and accessibility have significant relationship with the tourists' delight. The findings suggest that the tourist delight can be increased in the mountain tourism through the travel attributes (affordability and accessibility) have significant impact on the tourist delight.*

Introduction

Since the last ten years, the tourism industry has grown to be one of the largest and fastest growing in the entire world. A nation's economic and social development is significantly influenced by tourism. It has been noted that the tourist sector plays a key role in the economic development of many nations. Most of the developed and now developing countries regard tourism as one of the important areas to generate revenue and aid their economies. Along with this, tourists are flocking to locations, and both natural and constructed places are growing in popularity with travelers (Disegna & Osti, 2016; Ali, et al., 2018).

Pakistan is also focusing on the growth of the tourism sector. Pakistan is a very attractive country for tourists, and its Khyber Pakhtunkhwa province in particular offers several interesting tourist attractions. The northern Pakistani province of Khyber Pakhtunkhwa is known for its natural beauty and as a popular destination for travelers and adventurers (Stylos et al., 2017). The Swat Valley, Galiyat, and Kaghan region are popular tourist attractions in the north because of their natural beauty and appeal. More than 7,000 glaciers exist in Pakistan, of which 3,044 have formed glacial lakes (Talebi et al., 2021). The beauty of northern areas attracts tourists and conducive steps are being taken to promote tourism by the federal and provincial governments as well as policies are also made for the betterment of tourism and facilitation to the tourists is increasing gradually in tourism considering the tourist's satisfaction and delight.

According to Rahmawati et al. (2021), tourist delight is trendy topic for researchers in the field of tourism because most of the studies have been conducted in business field regarding customer delight. The main purpose of this study is to examine the factors in terms of affordability and accessibility that have a profound effect on tourist delight. For this purpose; the researcher conducted a survey to collect data related to the selected variables in terms of tourists' perception.

Tourists delight being an important variable and impacted by a variety of factors, including affordability and accessibility. Although there have only been a few studies on the connection between affordability and accessibility and visitor satisfaction and loyalty, tourist delight is particularly understudied in the context of developing countries in relation to affordability and accessibility; as a result, this study will fill in the gaps in the literature and add to it. This study explains how tourists are currently conceptualized and provides expanded definitions for academic and managerial implications for upcoming research. It also suggests a research agenda and new determinants for relevant organizations to achieve delighted visitor experiences and mitigate the severely detrimental effects on Pakistan's tourism industry. Additionally, it will be beneficial for the development of tourism industry policy and practice, and it will be very helpful for researchers and policymakers to comprehend the emotional phenomenon of tourist delight.

Research Questions

Q 1: Is affordability has strong relationship and significant influence on tourist delight?

Q 2: Is accessibility has strong relationship and significant influence on tourist delight?

Literature Review

Travel attributes

Travel attributes are a bundle of distinct qualities that satisfy travelers' basic needs, make them pleased and satisfied, have a favorable effect on travelers' minds, pique their interest in returning, and lead them to promote certain destinations to other travelers. Travel characteristics are crucial for travelers to have a wonderful trip (Ahrholdt et al., 2017; Baharuddin & Mahdzar, 2020). Travel characteristics are crucial components that help attract attention and keep travelers moving. Travel-related qualities inspire tourists to return to a destination and to travel.

Travel qualities, according to Khuong and Nguyen (2017), are essentially those services that travelers require on a basic level, such easy access and reasonable lodging at a certain location. According to Meira et al. (2021), the primary factors that increase the worth and appeal of a location and foster positive perceptions of it in the minds of travelers are travel qualities such travel resources and the combination of tourist activities. Each destination has its own unique traits and amenities to offer, according to Meyer et al. (2017). Accessibility and affordability such as transportation, roads, mapping, places, prices, safety and security, and political stability are characteristics of a travel destination that may affect a tourist's decision and delight. Other characteristics include conditions of the place or destination quality, management and environment, culture, likeness of the area, reason, and cost of travel.

According to Rahmawati et al. (2021), accessibility and price are the most significant factors in travel decisions. It is crucial for destinations to continuously offer the highest standard in terms of better services to address the needs and wants of tourists in order to ensure their satisfaction, loyalty, and delight. Accessibility refers to the ease with which attendees can travel to and from the event site while taking into account the time and effort. Affordability refers to the overall price or cost of participating in an event (Siregar et al. 2021). The decision-makers of various tourism businesses in various countries would benefit from having these characteristics in order to plan and strategize their commitment to overcoming challenges in the future and improving locations for greater tourist preferences (Rahmawati et al., 2021).

All travel-related characteristics, according to Clark and Causer (2020), can be broken down into two categories: accessibility and affordability. While accessibility encompasses transportation, roads, mapping, infrastructure, fuel availability, safety and security, etc., affordability covers all expenditures associated with a vacation, including lodging, food, shopping, entertainment, fare and rents, etc. This study takes into account the two travels attributes, affordability

and accessibility and their effect on the tourist delight. Affordability and accessibility are complex conceptions and inter related with each other. Gonçalves and Costa (2022) defined that affordability and accessibility are physical and psycho-social factors. Accessibility means transportation network while affordability is related to all affordable needs of transportation and these factors also help to motivate tourists in decision making.

The two most significant aspects of travel characteristics are affordability and accessibility (Del et al., 2008; Olya & Han, 2022). Dann created a pull and push factor theory framework (1977). According to his concept, a tourist's motivation to visit a location is referred to as a push factor. These are seen as the requirements and desires of the visitor, including rest, escape, etc. The pull factors are considered as the travel attributes such as affordability and accessibility. Aspects that draw tourists to a destination, such beaches and sports facilities are called destination features and travel qualities. The push forces are endogenous and psychological, as opposed to the pull factors, which are exogenous.

In this research, researcher adopted push and pull factors theory by Crompton (1997), push and pull factors theory justify motivational factors that motivate the tourist for tour. Dann (1977) was earliest that established the push and pull phenomena and develop theory and confirmed that Push and pull are two distinct ideas with an inverse relationship; push factors are motivating influences that encourage people to avoid performing a particular task, and pull factors are the opposite. For instance, greater employment opportunities are pull forces, whereas fewer employment opportunities are push factors. Push factors are internal pressures and sources of incentive that encourage tourists to hunt for activities that will meet as many of their needs and requirements as possible. In addition to being pull factors, they are also thought of as forces in the creation of destinations and a source of information for travelers so they may learn more about a place.

The model of pull and push factors proposed by Dann (1977) was discussed by Olya and Han (2022) concluded that both push and pull factors are internal and external forces that are compelling people to make decisions. For example, from the perspective of tourism, push factors are associated with internal needs and requirements of Push elements so serve as a source of appeal to pique tourists' interest in vacationing. Motivation and support come naturally to people, and when they are pushed by outside forces, they respond by acting in a way that serves their needs for pleasure. Because of this, certain outside forces—known as push and pull factors—are drawn into these activities (Camilleri, 2018; Su & Johnson, 2020).

Push and pull factors were further customized by Crompton (1979), who split them into two categories. The first section is based on socio-psychological and cognitive practices that are connected to internal motivation and compel visitors to travel, and the second segment is based on external physical and situational variables that force visitors to include accessibility and pricing. Push and pull

factors were described as driving forces by Crompton (1979). Breaks for leisure and to get away from a routine environment, self-evaluation and travel, novelty, entertainment, social engagement, and reputation are all push factors. However, pull factors include a lack of knowledge about the destination, financial difficulties, access, and affordability.

Push and pull factors theory explains that how tourists behave towards affordability and accessibility and these travel attributes generally are used to explain the visitor's behavior. Researchers have found that the travel characteristics of affordability and accessibility encourage people to hone their knowledge and turn it into ideals and judgments, with affectivity emerging from the concept of emotions. Affordability and accessibility elements are rankings of a selective area's distinctiveness, such as accommodation and hygienic and healthy food, rent and value for money, infrastructure, road and mapping, fuel availability, safety and security, a variety of lodging options and exciting visitor attractions. These are all accouterments and provide delightful travel experience (Olya & Han, 2022).

Tourist delight

Delight refers to extreme level of satisfaction, happiness and gratification and has been described as significantly favorable emotive condition taking place when desires go beyond to a extraordinary scale (Ahrholdt et al., 2017). According to Ball and Barnes (2017) and Baharuddin and Mahdzar (2020), tourist joy increases fidelity, assurance, positive word-of-mouth, and consumer intent. Barnes and Krallman (2019) identified that delight is included in the basic human values and it is different from surprise and joy. Numerous researches have been conducted on the role of delight the in the tourism sector. The major findings from the initial studies show that joy is a strong kind of satisfaction (Bello, 2021). Tourists' delight was described by Camilleri and Rather (2018) in terms of the tourist zone of tolerance and variety. Dissatisfaction is defined as performing well below expectations, whereas satisfaction is defined as fulfilling those expectations; however, the phenomenon of delight still requires adequate justification (Ahrholdt et al., 2017; Berman, 2005; Camarero et al., 2010).

According to Cebrián and Garcia (2021), surprise is the main component of delight. On a spectrum of pleasant emotions, however, the majority of literature says that pleasure is a combination of happiness, joy, and surprise. In the opinion of Ball and Barnes (2017) and Baharuddin and Mahdzar (2020), delight is a concoction of joy and surprise that can never be fully realized without achieving the desired level of happiness, surprise, and additional effort toward the expectations. Additionally, delight has the potential to increase the scope of joy and surprise. Gonçalves and Costa (2022) recognized that the theory of

disconfirmation by Oliver (1973) is differentiates the concept of delight and satisfaction.

Recent debates in literature clarify that delight is a distinctive and unique concept and different than satisfaction because satisfaction is completion of desire while in delight surprise factor is important. This factor separates satisfaction and delight (Huber et al., 2020). Berman (2005), Camarero et al. (2010), and Ahrholdt et al. (2017) expanded the delight definition and described that surprise and joy are not the only factors that create delight even other factors of positive sensation are also involved for example the stimulation. In initial researches, Oliver (1980) explained the delight phenomena in social studies and speculates that delight generates high feelings or emotions and extra ordinary outcomes from a specific situation, and it affects certain service patterns. According to Kumar et al. (2000), delight is the amalgamation of three main elements, excitement, surprise and joy.

Disconfirmation theory was developed by Oliver (1980), and the main theme of this theory is to differentiate the delight from other pleasurable elements such as happiness, gratification and satisfaction. The theory quantifies the difference between delight and satisfaction and describes that satisfaction is a judgment of pleasurable level regarding fulfillment and delight is a different concept that refers to high level of pleasure and more than satisfaction level and delight is mixture of happiness, joy and surprise which also includes satisfaction factors. The consumers have the same opinion on small dissimilarity regarding the perceived performance within the limits of tolerance and acceptance from want to expectations and expectations to satisfaction however as consumers receive more than satisfaction with joy and surprise, then delight being a level of comfort is felt beyond the satisfaction (Lui, 2015).

In different perspectives, disconfirmation theory is explained. Meira et al. (2021) proposed that when consumers fulfill their wishes and acquire pleasure, are amazed or surprised by a service/product and feel the experience beyond their expectations, this leads to disconfirmation. But surprise is not important reason for delight and only joy and pleasure can result in the delight. The tourist delight is an emotional reaction which can be realized by the provision of tourist' incentives such as affordable travel package with little extra benefits that impress or surprise the visitors (Oliver et al., 1997). Prayag et al. (2017) and Rahmawati et al. (2021) elaborated the concept of Oliver (1980) customers evaluate new customer experiences against a benchmark they've established. How effectively the service adheres to this standard determines how they feel about it. The theory assumes that customers base their purchases on their goals, attitudes, and expectations (Raza & Jawaid, 2013).

Customers evaluate the experience later, either during or after consumption, and a sense of performance is established. When clients compare the actual service performance to their pre-experience expectation or standard, the process is

accomplished if the outcome is confirmation, satisfaction, or dissatisfaction (Lui, 2015; Khuong & Nguyen, 2017; Rehan et al., 2021; Siregar et al., 2021). Expectations, perceived performance, disconfirmation, and satisfaction are the four parts of the disconfirmation paradigm. Pre-consumption expectations are represented by the level of expectations. Performance is how the client feels about the service. If expectations and performance don't match up, disconfirmation happens. In the end, contentment is calculated by adding the satisfaction results for different service qualities. Although the first three factors have an impact on satisfaction, it is unclear whether they ultimately result in satisfaction or discontent. The interrelationships between the factors are also up for debate.

Hypothesis of the study

H1: Affordability has strong relationship and significant influence on tourist delight.

H2: Accessibility has strong relationship and significant influence on tourist delight.

Research Methodology

The study is quantitative in nature and questionnaire was used to collect data. The questionnaire measured three variables of the study and included 21 items which are adopted from different studies Barnes et al. (2016), Barnes and Krallman, (2019). Both affordability and accessibility attributes included of six items while tourist delight consisted of nine items. Moreover, Five Point Likert scale (Strongly Un-influential, Un-influential, Neutral, Somewhat Influential, Strongly Influential).

Local tourists of Khyber Pakhtunkhwa province were target population and data were collected from the three main regions/strata of the northern areas, Swat Valley, Kaghan region and Galiyat using the convenience sampling technique. The selected areas are the most visited destination of the Khyber Pakhtunkhwa. Population was unknown and accurate figure of visitors is not available, for the determination of sample size of unknown population formula is used. The sample size determined was 384. Data is collected through surveyor from the target population of the study. SEM (Structural Equation Modeling) is applied to evaluate the data and tested hypotheses of the paper using the Smart PLS 4 software. The analysis section is divided into main four parts including response rate, respondent demographics, analysis of measurement model and structural model of the study. Considering the sample size, 384 questionnaires were distributed which out of which 372 questionnaires were received wherein some were not accurately filled). Therefore, response rate study is 96.87%. Demographics of the respondents are in table 1.

Table 1   *Demographical Details of Respondents (N= 372)*

Demographic	Feature	Frequency	Percentage
Gender	Male	203	54.6
	Female	169	45.4
Age	Under 20 years old	50	13.4
	20-30	197	53
	30-40	77	20.7
	40-50	35	9.4
	Above 50	13	3.5
Education	Under Metric/SSC	9	2.4
	Intermediate	49	13.2
	BA/BSC	98	26.3
	Master 16 years	147	39.5
	MS/M Phil 18 Yrs	25	6.7
	PhD	17	4.6
	Others	27	7.3
Profession	Student	177	47.6
	Job	81	21.8
	Business	55	14.8
	Others	59	16

Convergent Validity

Table 2. *Items Loading*

	Accessibility	affordability	tourist delight
td1			0.730
td2			0.733
td3			0.675
td4			0.754
td7			0.685
td8			0.683
td9			0.767
aff.3		0.639	
aff.4		0.770	
aff.5		0.787	
aff.6		0.737	
acc.1	0.719		
acc.2	0.727		
acc.3	0.723		
acc.4	0.675		
acc.5	0.752		

The item loadings values are measure the level of consistency for all items and they perform as a indication of consistency level to which an observed variable is

linked with proposed construct to quantify latent variable (Rehan et al., 2021). According to Johnson et al (2019) usually 0.7 and greater than 0.7 values are recommended for item loadings and for the desired result of Cronbach's Alpha, composite reliability and AVE are increased by subtraction of item loadings with value of less than 0.6 and AVE < 0.5 then it will not be recognized for further tests (Memon et al., 2019).

In this study, PLS Algorithm is apply to calculate item loadings. Due to low value (<.6) of item loading the (td5, td6, td10, aff1, aff2 and acc6) were deleted to achieve the desired results.

Table 3 *Cronbach's Alpha, CR, AVE*

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Accessibility	0.769	0.774	0.843	0.518
Affordability	0.718	0.727	0.824	0.541
tourist delight	0.844	0.848	0.882	0.517

The results of Cronbach's Alpha of accessibility, affordability and tourist delight are 0.769, 0.718 and 0.844 respectively while values of composite reliability are also in accordance with the threshold values. These values are higher than 0.6 and in acceptable range (Memon et al., 2019). The values of accessibility, affordability and tourist delight are 0.518, and 0.514 and 517 respectively which are greater than 0.5 and are in acceptable range, therefore, there is no issue of convergent validity for further analysis.

Discriminant validity (Fornell-Larcker criterion)

The results show that square roots of AVEs are high than the values between constructs and so the given results support the constructs' discriminate validity.

Table 4 *Discriminant validity (Fornell-Larcker criterion)*

	Accessibility	Affordability	tourist delight
Accessibility	0.720		
Affordability	0.567	0.736	
tourist delight	0.582	0.463	0.719

Heterotrait-Monotrait ratio (HTMT) – Matrix

The HTMT results confirms that all constructs have less than 0.90 values, therfore the results confirm no seriuos issue in discriminant validity.

Table 5 *Heterotrait-Monotrait ratio (HTMT) – Matrix*

	accessibility	Affordability	tourist delight

Accessibility		
Affordability	0.765	
tourist delight	0.706	0.582

Model fit

Table 7 *Model Fit Statistics*

	Saturated model	Estimated model
SRMR	0.078	0.078
d_ULS	0.837	0.837
d_G	0.237	0.237
Chi-square	508.972	508.972
NFI	0.763	0.763

Goodness of fit model is described by the value of SRMR, Chi-Square and NFI (Rehan et al., 2021). Table 3.4 shows that the SRMR value is 0.052 less than critical value (<0.08 to <0.10) and as according to Hu and Bentler (1999), the value of SRMR less than <0.08 is a good fit and NFI value close to 1 is considered good fit, Chi-square value is high at 508.972. Therefore, the model fit results are acceptable.

Table 7 *Model Selection Criteria*

	BIC (Bayesian information criterion)
Tourist delight	-152.197

The test of Bayesian information criterion (BIC) provides model performance that explanation for model complexity. The table of model selection criteria shows that the value of BIC is -152.197 which is lower. Therefore, this model meets the criteria of best selection (Hair et al. 2017).
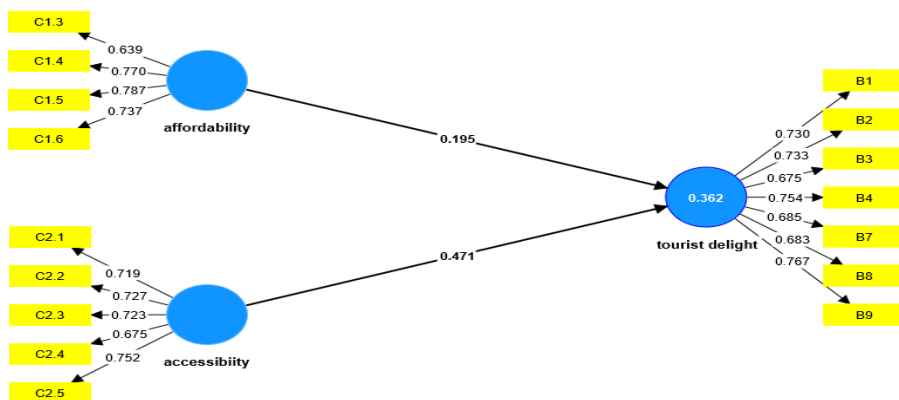
Figure 1 Measurement model

Table 8 *Results of the Model*

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	2.5% LL	97.5% UL
accessibility -> tourist delight	0.471	0.474	0.055	8.608	0.000	0.364	0.576
affordability -> tourist delight	0.195	0.200	0.053	3.709	0.000	0.097	0.306

The results are obtained by bootstrapping and suggest that the values showing effect of accessibility on tourist delight are β= 0.0.471 and t-statistics value is 8.608 which is significant (P-value less than 0.05) while confidence interval at 97.50% is bias accepted at LL= 0.364, UL= 0.576.

The results of study show that values of the affordability demonstrating effect on tourist delight are β= 0.195 and t-statistics value is 3.709 which is also significant (P- value less than 0.05) while confidence interval at 97.50% are bias corrected at LL= 0.097, UL= 0.306.

The outcomes illustrate that the relationship of travel attributes of accessibility and affordability are significant and have influence on tourist delight.
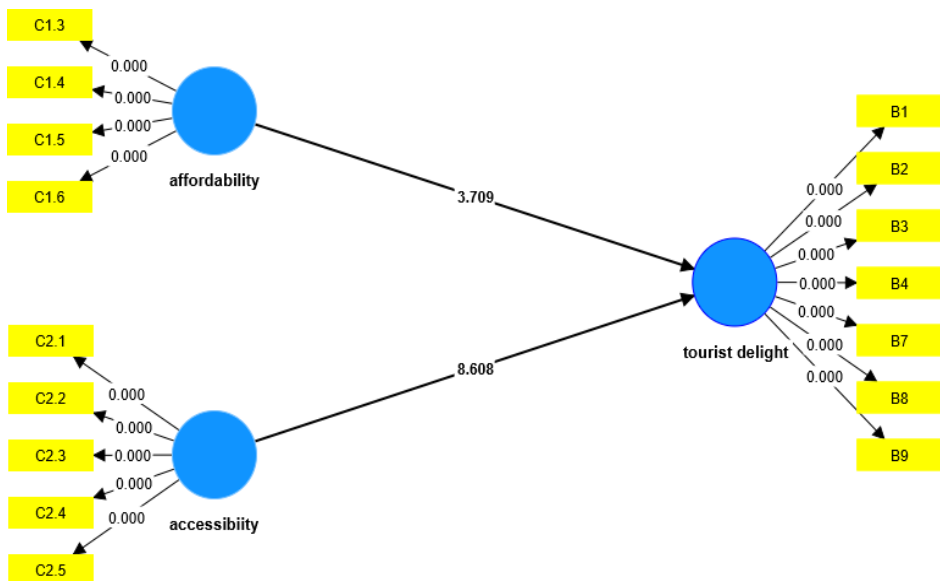
Figure 2 Structural Model

Discussion

The current research is conducted to examine the relationship between affordability and tourist delight and accessibility and tourist delight. In this study, these two independent variables were examined individually in relation with tourist delight. First research question was regarding the influence of affordability on tourist delight and its hypothesis was tested.

Q 1:   Is affordability has strong relationship and significant influence on tourist delight?

H1:   Affordability has strong relationship and significant influence on tourist delight.

As regards the affordability, results of the study confirm strong relationship and significant influence on tourist delight. These result supports research hypothesis in line with the previous researches documenting and supporting the relationship between affordability and tourist delight (Meira et al., 2021). Affordability is an important factor in tourism because affordable travel provides enjoyment and pleasure and increases tourism delight. Affordability plays very important role in decision making for traveling to an area and develops a positive influence on tourist delight and inducing the delightful experience and expectations.

The study point outs that affordability and tourist delight have positive and strong relationship. Affordable travel increases tourist delight. Affordability is related to the facilities that make trip easy and convenient to the visitors and it directly influences psychology of an individual towards the visiting sites and when tourists achieve their desires easily and expectations or more than expectations it is then converted into delight (Chi & Qu, 2008; Rahmawati et al., 2021).

The current study highlights that every destination has its own attributes but in mountain areas the facilities are less than other areas. In this respect, our governments and management authorities have to play a sue role to build and increase the value of destination site by means of conducive policies and management. The provision of requirements and amenities also increases attraction, motivating visitors for visits and leads to visitor's happiness, pleasure and delight. The significant effect of affordability on the tourist delight calls for to accept first hypothesis of the study in line with the first research question.

Different previous researches document the basic components of affordability such as accommodation, food, travel expenses etc. and their impact on the tourist delight (Chi & Qu, 2008). Delight is a psychological factor and affordability is requirement that satisfying the psychologically therefore, affordability and tourist delight are strongly related with each other (Meira et al 2021).

Previous researches have performed and tested the relationship of overall destination attributes with satisfaction and revisit intension (Jariyachamsit, 2019;

Lozanov, 2018; Tung & Ritchie; 2011). But the current research tested the relationship of affordability and tourist delight to fulfill the pertinent research gap.

The second question of this study proposes the following hypothesis:

Q 2: Is accessibility has strong relationship and significant influence on tourist delight?

H2: Accessibility has strong relationship and significant influence on tourist delight.

Considering the above research question and hypothesis, the results confirm that accessibility has significant influence on tourist delight which means that if a destination site is accessible and convenient, it will motivate to visitor for travelling. Therefore, the tourists can be delighted from appealing destination with accessible resources can attract them for visits towards the northern areas, all travel accoutrements are very important to provide delightful travel experience.

Previous researches are of the view that mountain tourism is unique than other forms of tourism. Because mountain tourism is known as the adventure tourism, and mostly young and energetic tourists take interest in mountain tourism. Sometimes they do not need all accouterments of travel and basic needs are enough for mountain travel where accessibility is the basic need for travel, like roads and mapping, transportation and fuel availability. Without these, the travelling will be difficult or nearly impossible. Therefore, accessibility is basic need that provides delightful experiences to the tourists (Chi & Qu, 2008).

Conclusion

The present aims to investigate the influence of affordability and accessibility on tourist delight. Travel attributes and tourist delight are worthy areas for researchers. The underpinning theories are the pull and push factor theory of Crompton (1979) and disconfirmation theory of Oliver (1997) for tourist delight. The pull and push factor theory support results of the current study that that different factors push and pull factors like travel attributes induce tourists to visit a destination site. Crompton proposed that push and pull factors are play important role to encourage or discourage someone towards the decision making. Like in tourism, when a visitors plan a visit, first he/she evaluates the affordability and accessibility dimension for selection of a destination.

Results of the study provide important contributions that affordability and accessibility are the pull and push factors in tourism that influence the tourist delight. The study also has some practical implications for the tourism authority; managers and policy makers that how better practices in terms of facilitating attributes will enhance attraction and provide delightful experiences to favorably influence the tourist delight. Different studies have been undertaken on the

phenomena of delight and some researchers claimed that delight is similar to satisfaction. However, Oliver's (1997) theory of disconfirmation differentiates delight and satisfaction as well as supports results of this study. Level of satisfaction can be achieved by completion of desires but delight is not only related with desires, delight means completion of desires with surprise and joy.

Despite the fact that surprise is not often regarded as a crucial component of joy, and joy can result in happiness. In contrast to earlier research, he dismissed joy as a distinct notion and implicitly conceptualized it as a nonlinear, positive response to contentment. Current study takes into account earlier studies and views customer delight as an emotional reaction to stimuli like the fundamental services in travel.

This study also enforces the better provision of travel attributes important for delighting the tourists. Pakistani tourists have different and unique behavior towards the tourism. Specially, northern areas of Pakistan overflow with tourists throughout the year and tourist do not miss any opportunity of travelling these areas particularly on religious events like Eids and holidays.

Tourism development impacts the country's economic growth therefore; government and authorities of the country should concentrate on the access facilities such as roads, transportation, fuel availability, parking and rental areas for the private vehicles. Available infrastructure is not enough because number of tourists is increasing day by day even roads are stuck in specific days of visit. Government should take decision to introduce proper government transit services especially in those areas where people travels most and should provide parking areas till to specific point. It will create employment opportunities for people like local drivers and contribute towards the economic growth. Political in-stability has high negative impact on freedom of visitor's movements. Therefore, government should ensure safety and security for national and international tourists and should develop sustainable strategies for tourism stability.

Limitations and Recommendations

Every research has some limitations; likewise, this research has some limitations that must have to be addressed. The current study was limited to the local tourists of three destination sites of Khyber Pakhtunkhwa province of Pakistan, Swat Valley, Kaghan Valley and Galiyat. The international tourists also visit these sites throughout the year. Therefore, the future researches may be conducted targeting the international tourists considering the generalizability of the results. The researches may also solicit the perception of local community regarding variables used in this study and their relationship. Moreover, the future studies may include other mountain areas of Khyber Pakhtunkhwa.

This study was also on the mountain areas of Khyber Pakhtun Khuwa. Thus, discussion and generalization will be restricted. Future researches can be

undertaken on other types of tourism such as sports tourism, shopping tourism, religious tourism and historical tourism considering the travel attributes and tourist delight.

Last limitation is being contextual and focuses only on Pakistan's context, therefore, in future, studies may be conducted taking into account the context of other Asian countries   because most of the studies are done in western context in previous years. Furthermore, this study is quantitative in nature but qualitative researches can also be conducted to explore different hidden dimensions of affordability and accessibility as well as identify other travel attributes and elaborate their relationship with the tourist delight.

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EVOLUTION OF ACCOUNTABILITY FRAMEWORKS IN PAKISTAN: 1947 TO 2022

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Abstract. *This paper focuses on the evolution of laws and institutions related to public sector accountability in Pakistan since its independence. It critically outlines a chronological legal history of the regulatory and institutions anti-corruption frameworks since 1860. It overviews the development phases of the promulgation, amendments, and annulment of such laws and points to the intent of the legislature and lawmakers in defining the scope of and promulgating these laws. In this regard, it outlines several different laws and seven evolution categories of accountability institutions. The authors also touch upon the influence of political government changes on such laws, especially through to contemporary political situation of Pakistan. In the later sections, there is a discussion on the international (comparative) context of accountability mechanisms followed up by conclusion. This paper offers a comprehensive review of accountability history vis-à-vis its institutional mechanisms and bodies, and serves as a source document for policy makers, academic researchers, and students of accountability in the context of Pakistan.*

Introduction

The legal-institutional structure or framework to deal with corruption in Pakistan comprises of at least three key sources of law: the Pakistan Penal Code (PPC) 1860, being the oldest enactment; the Prevention of Corruption Act (PCA) 1947, being the first formally established anti-corruption law, and; the National Accountability Ordinance (NAO), 1999 (NACS, 2002). The Anti- Money Laundering Act promulgated in 2010 does have provisions to stop this menace when the proceeds of corrupt and illegal practices are used in money laundering and terror financing. The Accountability Courts are established under the NAO,

while the Central and Provincial Special Courts are set up under the Criminal Law Amendment Act 1958 (Ahmed, 2013). Pakistan has two ACAs at the federal level, including the NAB and Federal Investigation Agency (FIA), and four at the provincial levels, i.e., the Anti-Corruption Establishments (ACEs). The Khyber Pakhtunkhwa Ehtesab Commission (KPEC) was abolished by the provincial Assembly in December 2018 (Ali, 2018).

Researchers broadly divide Pakistan's anti-corruption regime into pre and post-1996 phases (Cheema *et al.*, 2020). The difference between the two phases spins around the consideration of the nature of the crime, measures in practice, punishments and the functional independence or control of anti-graft bodies. In the *first phase*, corruption used to be taken as an ordinary offence, so the coping procedures adopted and the penalties imposed were equally ordinary. Government-led anti-graft bodies (attached departments) were responsible for dealing with it. The *second phase* becomes an era of recognizing corruption as a special crime (especially in the public sector) by promulgating new laws with an extended scope and harsh punishments, especially in creation of anti-graft bodies as independent of governmental control. The credibility of such bodies was compromised by how both civilian and military governments reportedly utilized these for 'selective' accountability, political victimization, and political engineering (Javaid, 2010).

Development of Legal-Regulatory Accountability Frameworks in Pakistan

The Penal Code enacted by the British in 1860 contained an entire chapter mentioning the punishment of bribery and illegal gratification offences. Bribery is made an extradition crime under the Prevention of Corruption Act 1889 to 1916, the Extradition Act 1906, and the Honours (Prevention of Abuses) Act 1925. The past seven decades have witnessed a rise in the regulatory systems in Pakistan, whereby accountability laws have been promulgated to administer accountability to curb corruption in the public service (Hamid, 2015).

The anti-corruption policy environment in Pakistan has mushroomed since independence, whereas Aziz and Bakhtiar (2012) view these efforts to fight corruption as pervasive. The laws established the outline for future accountability regulations (Khan *et al*., 2004). Special committees were created for the 'Eradication of Corruption from Service' in 1961 and 1987 to explore the occurrences and reasons for corruption, to suggest remedies, and to survey corruption perceptions across various sectors. In this regard, the first committee could have emphasized the need for long-term reforms (Schultz, 2007).

The PCA and PPC were enacted to make more effective provisions for preventing bribery and corruption (Hamid, 2015). The PCA was extended to the Province of West Pakistan after promulgating the first Martial Law in 1958. It was followed by other laws that set up Anti-Corruption Establishments to enforce the Anti-Corruption Laws effectively. Many '*allegedly*' corrupt government servants

were dismissed, and '*allegedly*' corrupt politicians were disqualified and punished under different laws soon after the Martial Laws were imposed in 1958 and 1969. Simultaneously the concerned governments enacted Civil Servant Conduct Rules 1964, to be observed by their employees along with Efficiency and Discipline (E&D) Rules 1973, providing for departmental action to punish violations of the rules.

To further strengthen the accountability regime, right after the adoption of the 1973 Constitution, the Federal Government proceeded to enact the Federal Investigation Agency Act 1974. Military Courts disqualified and punished allegedly corrupt politicians during the third Martial Law in 1977 following the two amongst many, as mentioned in the literature, '*draconian*' orders. There was no significant effect of various legislative measures and prevention mechanisms in reducing corruption, even restoring democracy.

The Ehtesab Ordinance issued by the President of Pakistan in 1996 during the caretaker government was re-enacted with amendments such as the Ehtesab Act 1997 by the coming elected government. The law had one important though symbolic feature, i.e., to bring in the highest public functionaries under the ambit of anti-corruption regulations. The National Accountability Ordinance 1999, replacing the Ehtesab Act, has the main criticism that there is '*no across-the-board accountability*' that excludes the serving military and the judicial officers from its ambit and operations.

NAO 1999 attempted to remove the perceived lacunas in earlier laws to provide a comprehensive legal backing/ framework to the Bureau, ensuring its operational effectiveness and functional independence. These included:

i.   A retrospective effect from 1ˢᵗ January 1985;
ii.   Its statutory protection to the posts of the Chairman NAB and Prosecutor General Accountability;
iii.   Its enhanced scope of the law to both public and private sectors;
iv.   Setting up the maximum penalty for corruption, including a bar on joining public office or attaining finances;
v.   A change in the traditional law doctrine (excluding special laws) that presumed the innocence of the accused while creating an effective deterrence against corruption. This way the onus of proof of innocence was shifted to the accused;
vi.   The changes made in the remand law giving an enhanced scope of investigation powers to the Bureau;
vii.   The Chairman NAB to enjoy certain quasi-judicial powers (including freezing assets);
viii. The NAB empowered to engage in international anti-corruption cooperation;

ix. The law widening the definition of corruption by adding "persons who maintain a living standard not commensurate with their known sources of income" (Section 9);

x. The Ordinance providing indemnity to the NAB from proceedings, including prosecution, while performing their official functions (Section 36); and

xi. The offences under the Ordinance to be '*non-bailable*' though the superior courts have the constitutional jurisdiction to grant the concession of bail bail as enshrined in the Articles 4 and 10 of the Constitution of Pakistan (Raja, 2017).

Accountability courts have been set up, having jurisdiction to run a trial of offences under the Ordinance. In 2002, the then military government developed a National Anti-Corruption Strategy (NACS) that used a three-pronged approach based on monitoring, preventing, and combating corruption. The democratic governments, unfortunately, could not contribute to updating this strategy (Lughmani, 2022). In the following section, the legal framework for the anti-corruption regime has been described right from independence.

The Legal Anti-Corruption Framework

The accountability laws could be analyzed based on the formation of a dedicated executing agency, scope, oversight function, and many other provisions. In addition to three basic accountability laws, other related laws were mostly promulgated to initiate and offer support to accountability/ oversight bodies or, in certain cases, even provide legal cover to politically generated actions. Some of the examples include Extradition Act 1972; Benami Transactions Act 2017; Qanoon-e-Shahadat Order 1984, as read with Electronic Transaction Ordinance 2002, which provide the procedural framework for investigation and prosecution of anti-corruption cases (Sadiq, 2020). Following is a brief overview of these laws in chronological order:

Table 1: *Anti-Corruption Laws in Pakistan*

#	Title of Anti-Corruption Law	Acronym	Year of Promulgation	Status
1	The Pakistan Penal Code	PPC	1860 (before partition)	In Force
2	The Prevention of Corruption Act	PCA	1947 (before partition)	In Force
3	Pakistan Special Police Establishment Ordinance	PSPE	1948	Repealed
4	Public Representatives Offices Disqualification Act	PRODA	1949	Repealed
5	Sind Prevention of Bribery and Corruption Act	SPBCA	1950	Repealed

#	Title of Anti-Corruption Law	Acronym	Year of Promulgation	Status
6	Elected Bodies Disqualification Order	PODO	1959	Repealed
7	Elective Bodies Disqualification Order	EBDO	1959	Repealed
8	Special Police and Provincial Police (Amalgamation) Order	SPPPO	1962	Repealed
9	Holders of Representative Offices Act	HROA	1976	Repealed
10	Parliament and Provincial Assemblies Act	PPAA	1976	Repealed
11	Representation of the People Act	RPA	1976	In Force
12	Holders of Representative Offices (Punishment for Misconduct) Order	PPPO-16	1977	Repealed
13	Parliament and Provincial Assemblies (Disqualification for Membership) Order	PPPO-17	1977	Repealed
14	West Pakistan Anti-Corruption Establishment Ordinance	WPACEO	1958	In Force
15	The Federal Investigation Agency Act	FIAA	1975	In Force
16	Sindh Enquiries and Anti-Corruption Act	SEACA	1991	In Force
17	Parliament and Provincial Assemblies (Disqualification for Membership) (Amendment) Act, 1991	PPA	1991	In Force
18	The *Ehtesab* Ordinance	EO	1997	Repealed
19	The *Ehtesa*b Act	EA	1997	Repealed
21	National Accountability Ordinance	NAO	1999	In Force
21	The Balochistan Enquiries and Anti-Corruption Act	BEACA	2010	In Force
22	The Khyber Pakhtunkhwa *Ehtesab* Commission Act	KPECA	2014	Repealed

The Code of Criminal Procedure (CrPC) 1898 lays down detailed procedures for collection of information, investigation, arrest, search, seizure, confiscation, and trial of cases (Sadiq, 2020). The PCA extends to entire Pakistan, whereby the Anti-Corruption Laws (Application to Tribal Areas) Regulation 1966, has applied this Act along with the Pakistan Special Police Law Amendment Act 1958, and the Pakistan Criminal Law Amendment Act 1958, to the Tribal Areas of the Peshawar Division. Senior politicians were charged with corruption and declared ineligible for becoming a candidate in elections until 1966 without trial and conviction. Public officials were tried for misconduct by tribunals, and more than three

thousand officials were demoted and removed from their official positions (Sayeed, 2010; Shah, 2016). Article 42A of the HROA 1976 made it compulsory for the parliamentarians to submit annual wealth statements of his/her family before the Election Commission of Pakistan. The Chief Election Commissioner (CEC) was authorized to publish the same and de-notify the names of the non-complying members or punish them on false submissions (Ahmed, 2013). The Ehtesab Act 1997 was re-enacted with inclusion of the option of Voluntary Return (Lughmani, 2022). The Khyber Pakhtunkhwa Ehtesab Commission (KPEC) was abolished by the provincial Assembly in December 2018 (Ali, 2018). While discussing the promulgation intent, scope, coverage and retrospective effect, it is obvious that a major difference in the KPEC law at the provincial level and other laws was that it provided a 'legislative oversight' (TI, 2018). Following is the tabular description of the same:

Table 2: *Comparative Indicators for Anti-Corruption Laws*

#	Anti-Corruption Law	Promulgating Government	Scope	Coverage	Retros-pective Effect
1	PPC	Elected	Govt. servants; Private persons		No
2	PCA	Elected	Govt. Servants; Employees of state corporations		No
3	PSPE	Elected	Public Officials		No
4	PRODA	Elected	Politicians		Yes
5	SPBCA	Elected	Public Officials	Whole of Pakistan	No
6	PODO	Martial Law	Politicians		No
7	EBDO	Martial Law	Politicians and Public Officials		Yes
8	SPPPO	Martial Law	Public Officials		No
9	HROA	Elected	Politicians		No
10	PPAA	Elected	Politicians		No
11	RPA	Elected	Politicians		No
12	PPPO 16	Martial Law	Public Officials		No
13	PPPO 17	Martial Law	Public Officials		No
14	WPACEO	Martial Law	Public Officials	West Pakistan (Now KP and Punjab)	No
15	FIAA	Elected	Politicians, Public Officials and private persons	Whole of Pakistan	No
16	SEACA	Elected	Public Officials	Sindh	No
17	PPA	Elected	Politicians	Whole of Pakistan	No
18	EO	Care Taker	Politicians and Public Officials	Whole of Pakistan	No

#	Anti-Corruption Law	Promulgating Government	Scope	Coverage	Retrospective Effect
19	EA	Elected	Politicians and Public Officials		Yes
20	NAO	Martial Law	All persons in Pakistan		Yes
21	BEACA	Elected	Public Officials	Balochistan	No
22	KPECA	Elected	Politicians and Public Officials	Khyber Pakhtunkhwa	No

In addition to the laws mentioned above directly concerned with the anti-corruption issues, some related laws were also promulgated in KP to assist in better governance and implementation of accountability efforts at the provincial level. These have been described in Table 3 below:

Table 3: *Relevant Laws for Better Governance at Provincial Level*

#	Title of the Law	Year of Promulgation	Status
1	The Khyber Pakhtunkhwa Right to Information Ordinance	2013	Repealed
2	The Khyber Pakhtunkhwa 'Right to Information Act	2013	In Force
3	The Khyber Pakhtunkhwa 'Right to Public Services Act	2014	In Force
4	The Khyber Pakhtunkhwa Whistleblower Protection and Vigilance Commission Act	2016	In Force

The Freedom of Information Ordinance (FOIO) 2002 of Pakistan did not provide sufficient access to information practices with application only to the federal government sectors while rest were out of its jurisdiction (CRSS, 2009, p. 2). Access to information was not given prime importance before the promulgation of RTI Act 2013. Further, a Commission (KPWPVC) was set up to encourage and protect such citizens from harm. This law is consistent with the UNCAC, which requires member nations to incorporate safeguards for those reporting corruption within their legal frameworks (Shah, 2016).

Institutional Anti-Corruption Framework

During the pre-independence era of British rule, Police Establishment was formed to curb corruption and investigate crimes against the British Empire or the general public. Pakistan inherited the same crime control body in 1947 and renamed it as Pakistan Special Police Establishment (PSPE) in 1948. It can be safely concluded that it was the beginning of establishing new institutions to enforce new laws, which later sprung up at regular intervals. The PSPE was

followed by the West Pakistan Anti-Corruption Establishment of 1961, which created provincial-level Anti-Corruption Establishments (ACEs). The Federal Investigation Agency (FIA) replaced the Special Police Establishment in 1975, having a wider mandate covering immigration matters, economic crime, anti-terrorism, and corruption (Schultz, 2007).

These bodies have received support from '*legislative oversight*' mechanisms like Prime Minister and Chief Minister Inspection Teams and the Parliamentary (Public) Accounts Committees (PAC). The institutional mechanisms included the Auditor General of Pakistan, the PAC, the public procurement regulatory authorities, and the Ombudsmen's offices in the federation and the provinces. The NAB was established in 1999, while the inter-sectoral regulatory bodies like the Federal Tax Ombudsman and the Banking Ombudsman were established in 2000 and 2005, respectively. Following is a brief description of the prevailing Institutional Mechanisms.

Table 4: *Institutional Mechanisms for Implementation of Anti-Corruption Laws*

#	Anti-Corruption Law	Dedicated Bodies	Acronym	Year of Formation	Status
1	PPC	Police	-	-	In Force
2	PCA	Pakistan Special Police Establishment	PSPE	1947	Repealed
3	PSPE	Pakistan Special Police Establishment	PSPE	1947	Repealed
4	PRODA	*No dedicated agency*			
5	SPBCA	*No dedicated agency*			
6	PODO	*No dedicated agency*			
7	EBDO	*No dedicated agency*			
8	SPPPO	Police	-	-	In Force
9	HPOA	*No dedicated agency*			
10	PPAA	*No dedicated agency*			
11	RPA	*No dedicated agency*			
12	PPPO-16	*No dedicated agency*			
13	PPPO-17	*No dedicated agency*			
14	WPACEO	Anti-Corruption Establishment	ACE	1961	In Force
15	FIAA	Federal Investigation Agency	FIA	1975	In Force
16	SEACA	Anti-Corruption Establishment	ACE	1970	In Force
17	PPA	No dedicated agency			In Force
18	EO	*Ehtesab* Commission	EC	1996	Repealed
19	EA	*Ehtesab* Bureau	EB	1997	Repealed
20	NAO	National Accountability Bureau	NAB	1999	In Force

#	Anti-Corruption Law	Dedicated Bodies	Acronym	Year of Formation	Status
21	BEACA	Anti-Corruption Establishment	ACE	2010	In Force
22	KPECA	KP *Ehtesab* Commission	KPEC	2014	Repealed

PSPE was also empowered to investigate under the Official Secrets Act, 1923; Foreign Exchange Regulation Act, 1947; Passport (Offences) Act, 1952; and Customs Act, 1959 (Sadiq, 2020). West Pakistan Anti-Corruption Establishment splits into local ACEs after the dissolution of the One Unit in 1970. On the recommendations of 'The Police Reforms Committee', the FIA was replaced with the PSPE in 1975. The bodies mentioned in table 4 can be bifurcated or compared based on different indicators. These include the provision of special courts, appointment and tenure of the head of the body, availability of rules, overseeing authority etc.

Table 5: *Comparative Indicators for Anti-Corruption Bodies*

#	Dedicated Bodies	Courts	Head of the Agency	Tenure of Head	Rules of Business	Overseeing Authority	Independence of Actions
1	Police	Criminal Courts	*Provincial Police Officer*	Not fixed	In place	Home Department, Provincial Assembly	Not independent; Political and Administrative pressures
2	PSPE	Repealed					
3	ACE	Anti-Corruption Courts	*Director-General* in Punjab and Balochistan, a Director in KP and a Chairman in Sindh.	Not fixed	In place	Establishment Department	Not independent; reports back to Establishment Department
4	FIA	Special Judge Central	*Director-General* appointed by the Federal Government	Not fixed	In place	Ministry of Interior and Committees	Not Independent; Reports back to Ministry of Interior
5	EC	Repealed					
6	EB	Repealed					
7	NAB	Accountability Courts	*President appoints the Chairman.*	Fixed	Not Available	No overseeing authority	Independent/ Constitutional Body
8	KPEC	Repealed					

The Sindh Enquiries & Anti-Corruption Establishment was established in the 1970s. The Sindh Enquiries & Anti-Corruption Act was promulgated in 1992 where the rules were framed in 1993 (Lughmani, 2022). The NAB was established to eradicate corruption and corrupt behaviour across several institutions in Pakistan, having the authorization to implement strategies and take actions (NAB, 2013).

The quasi-public accountability Institutions

There are some quasi-legal institutions responsible for public sector accountability. These institutions play a decisive role in upholding governmental accountability (GOP, 2002: 45). Institutions like the Provincial Inspection Team (PIT), Governor Inspection Team (GIT) and Monitoring and Evaluation (M&E) Directorate are like attached bodies or departments to an existing mechanism and usually take action on given instructions. The quasi-legal public accountability bodies have been discussed in table 6.

Table 6: *The Quasi-Public Accountability Institutions*

#	Name of the Body	Head of the Body	Year of Formation	Appointing Authority	Jurisdic-tion
1	The Auditor General	The Auditor General	Constitutional Body	The President	Federal and Provincial
2	The Public Account Committees	Chairperson	Constitutional Body	Federal Government	Federal
3	The Public Account Committees	Chairperson	Constitutional Body	Provincial Government	Provincial
4	The Federal Ombudsman	The Federal Ombudsman	1983	The President	Federal
5	The Provincial Ombudsman	The Provincial Ombudsman	*Punjab*: 1997, *Sindh*:1991, *Balochistan*: 2001, *KP*: 2010	Provincial Government	Provincial
6	The KP Public Procurement Regulatory Authority	Managing Director	2012	Provincial Government	Provincial
7	The Right to Information Commission	Chief Information Commissioner	2013	Provincial Government	Provincial
8	The KP Right to Public Services Commission.	Chief Commissioner	2014	Provincial Government	Provincial
9	The KP Whistle-blowers Protection and Vigilance Commission	Chairman	2016	Provincial Government	Provincial

The North-West Frontier Province (NWFP) Procurement of Goods, Works, Services and Consultancy Services Ordinance 2002 was in force before the promulgation of KPPRA Act 2012 (Muhula, 2021). In view of the Westminster

model of democracy, the Public Accounts Committee (PAC) is one of the most important committees in the National and Provincial Legislatures. KP was the last in the provinces to promulgate the Khyber Pakhtunkhwa Provincial Ombudsman Act in 2010, establishing the Provincial Ombudsman office.

Political settlements as a deterrent to anti-corruption efforts

The National Reconciliation Ordinance (NRO) was considered a controversial ordinance as it constrained the authority of NAO and compromised the anti-corruption efforts in Pakistan (Ahmed, 2013). Ironically, the NRO was enacted just a couple of months after ratifying the UNCAC, reflecting the seriousness of commitments (Transparency International Pakistan (TIP), 2014, p. 161). The NRO opened new doors for legalizing corrupt practices, benefitting the politicians, bureaucrats, and armed services personnel suspected of corruption. In October 2007, the NRO was promulgated, by President Musharraf by exercising his powers under Article 89(1) of the Constitution (Agha, 2020), granting amnesty to politicians and bureaucrats allegedly accused of corruption etc., between the period of two martial law regimes in Pakistan, i.e., between January 1, 1986, and October 12, 1999. The anti-corruption efforts had to deal with the biggest legitimacy crisis in the history of Pakistan after the said promulgation, as it developed constraints to the anti-corruption strategy and its implementation. The Supreme Court of Pakistan (SCP) declared this act of the President unconstitutional and without lawful authority on December 16, 2009 (TIP, 2009), when it had already benefitted about eight thousand allegedly 'tainted' people. During the next elected government's term (2008-13), the NAB was told to wrap up its investigations against almost sixty leaders of the ruling coalition.

A few powerful bureaucrats and federal ministers arrested during this tenure were primarily due to the *suo moto* notices of the Chief Justice of Pakistan. The same situation was witnessed during the next regime (2013-18 and 2018-22) and the current coalition government (2022-present), as one can hardly find a conviction and a lack of will of the ruling parties to punish the corrupt. Hussain (2009) quoted the chairperson of TI Pakistan accusing the judiciary of validating martial law regimes from 1951 to 2007 while applauding the efforts of the then Chief of Army Staff for taking bold initiatives to uproot corruption from its ranks.

Efforts to amend the accountability systems

Different attempts were made by the democratic governments, especially in the last decade, to bring about amendments to accountability laws, repeal them, make new laws, wind up accountability institutions or establish new anti-graft bodies. However, insufficient political and parliamentary support did not make this a reality. The prevailing laws and the bodies continued working despite the huge criticism (Mehboob, 2020). In this regard, a majority of laws or bills presented in

the Senate, the National Assembly or the provincial assemblies are discussed below:

Table 1: *Amendments in Accountability Laws*

#	Law	Bill Title	Year	Description
1	NAO	The National Accountability (Amendment) Act	2016	Amendments in NAO
2	NAO	National Accountability (Amendment) Ordinance	2017	Amendments in NAO
3	NAO	The National Accountability (Amendment) Act	2019	Amendments in NAO
4	NAO	The National Accountability (Second Amendment) Ordinance	2019	Amendments in NAO
5	NAO	The National Accountability Act	2021	Amendments in NAO
6	NAO	National Accountability (Second Amendment) Bill	2022	Amendments in NAO
7	NAO	Holders of Public Office (Accountability) Bill	2009	Abolishing NAO and bringing in a new law
8	NAO	Holders of Public Exchequer (Accountability) Act	2015	To repeal the NAO, 1999, abolish all anti-corruption Establishments and enact new law of accountability
9	ACE	Repeal of the Anti-Corruption Establishment Ordinance 1961	2014	ACE in KP was absorbed into KPEC, but later the government took back the decision through an amendment in KPECA
10	KPEC	The KP *Ehtesab* Commission (Amendment) Bill	2016-17	Amendments in KPECA
11	KPEC	The Khyber Pakhtunkhwa *Ehtesab* Commission (Repeal) Act 2019	2018	To repeal KPECA and dissolve KPEC

The study of the relevant bills, Acts and Ordinances on amendments in Accountability Laws reveal the underlying motives which usually were controversial and considered politically justified in holding the powers in the garb of amendments. As per the institutional annual report 2017, the KPEC Act 2014 was amended at least seven times in four years (Lughmani, 2022). The most recent amendments in the NAO 1999 could better present the picture as discussed in the next section.

Recent amendments to National Accountability Ordinance 1999

The recent attempt to amendments appears to be fruitful though not applauded by the critics, and viewed as a political stunt to save the ruling coalition's skin and still faulty. It would be worthy to mention here that the change of government and subsequent amendments in NAO took place after the first submission of this paper which was taken into consideration during revision. In May 2022, the newly established coalition government under Pakistan Democratic Movement (PDM), for one parliamentary year, took its first major action by passing National Accountability (2nd Amendment) Bill 2021 in Parliament, trying to roll back

retrospective application. The amendments include alignment of the mode of arrest, production before the court, provision of bail and remand period with the common law; taking procedural lapses, developmental allocations and taxation as out of the jurisdiction of the NAB; restricting public statements by the officials of A-GB; acquittal in cases initiated with *mala fide* intentions; and, modifying the terms and procedures for the appointment and removal of Chairman and Deputy Chairman NAB. The long-disputed issue of '*across-the-board accountability*' has not yet been touched upon, leaving the military and judiciary out of the ambit of the NAO. The opposition criticized these amendments as a skin-saving effort by the coalition government to get an NRO to avoid accountability regulations.

The President of Pakistan, while returning the bill to the Parliament, vide letter No. (PS(Public)'s U.O. No. 5(117)/Senate/Dir(E)/2022, dated: 04.06.2022, came out with detailed reasoning, besides alleging that the government violated Article 46 of the Constitution by not informing him about the legislative proposals before bringing them to the Parliament. He observed that the amendments had been passed by the National Assembly and the Senate "in haste and without due diligence", adding the legislation having a far-reaching impact on society should have been discussed in detail in consultation with the legal fraternity and civil society. The President said the amendments made the NAB law similar to the CrPC 1898. He rendered it a burial of the accountability process while mentioning these amendments as against the spirit of Islamic jurisprudence and various accountability laws of the developed countries e.g., Swiss Foreign Illicit Assets Act 2010 and Unexplained Wealth Order 2018 of the UK in White-Collar Crimes. The President emphasized that these amendments would make tracing of 'money trail' for acquiring illegal assets almost impossible by investigators and not helpful to the ongoing mega corruption cases in courts. Therefore, the proposed amendments were rendered a 'toothless' entity (Wasim, 2022). It is pertinent to mention that despite being opposed by the President of Pakistan, the amendments made in 2022 by the coalition government stood enforced as amended law throughout Pakistan, benefitting the politicians, public officials and private persons who were previously accused or were charged under the NAO 1999.

Discussion

Certain preconditions discussed in the literature ensure the effective and impartial implementation of accountability regulations through proactive A-GBs. Out of different preconditions, the first and foremost is the political will of the government to eradicate corruption. Such political will is backed by the favourable policy context, which helps in the smooth implementation of such laws. Quah (1978) argued that anti-corruption laws must clearly define corruption and provide specified powers to the A-GBs. The perceived legitimacy to exercise power is

among the crucial dimensions of accountability relations in the public sector (Bovens *et al*., 2008).

In the case of Pakistan, even the thoroughly debated strong laws are made toothless or even repealed due to continuous tinkering with the existing legislation to mold it on one's behalf or save someone's skin. In the aftermath of the amendments in the Act, the KPEC annual report 2017 mentioned:

"The arrest of accused has been conditioned with the permission of court. This is unprecedented preposition inserted in this Act…such permission from a court in cognizable offences of white-collar crime is a hurdle".

The transfer of powers from the Chief *Eshtesab* Commissioner to a political appointee at the *Ehtesab* Cell, restricting the powers of Commissioner KPEC or the repeal of KPECA 2014, and the National Accountability (Second Amendment) Bill 2022 are some of the examples.

Quah (1978) advocated for promulgating new laws and periodic reviews of existing laws to remove loopholes. Instead of addressing the lacunas present in the laws or certain obvious flaws in the implementation, the whole course has been changed multiple times to benefit blue-eyed persons. A-GBs require a clear mandate to enforce laws (Heilbrunn, 2004) and substantial legal or institutional change (Vyas & Wu, 2020) to succeed. There has been a continuous disagreement between the government and opposition benches in Pakistan regarding promulgating a new anti-corruption law or bringing amendments to prevailing laws.

It is of utmost importance for an A-GB to be independent of political pressures and have operational autonomy. In the case of Pakistan, the heads of the ACEs and FIA are usually on deputation from the Police, which further deteriorates the situation regarding these bodies' long-term goals and institutional independence. The current Director General is from Police Service of Pakistan (PSP) as per the prevailing tradition (Lughmani, 2022). A list available in the official report reveals the names of the Director Generals of the agency where out of 39 DGs till date 32 were PSP (Federal Investigation Agency (FIA) Annual Report, 2020). Quah (2007), while discussing the operational autonomy and independence of A-GBs, renders that the police, the biggest obstacle in curbing corruption, should never be responsible for controlling it. It took decades for Singapore and Hong Kong to learn this important lesson as best practice to reject the British colonial government's ineffective method of relying on the police for anti-corruption. In contrast, Pakistan has unfortunately not followed this best practice as yet (Lughmani, 2022).

Further, the political leaders must not have any control or interference in A-GB's operations. Literature narrates the examples of the Corrupt Practices Investigation Bureau (CPIB) in Singapore (Quah, 2007; RIAP, 2001; Tan, 1999);

the Independent Commission Against Corruption (ICAC) in Hong Kong, and the National Counter Corruption Commission (NCCC) in Thailand (Borwornsak, 2001) for the compromises including usage against political rivals, the executives being reporting authority and having political oversight (Quah, 2007) respectively, despite their good reputation. On the other hand, the ACAs in India are considered under government control and influenced by party politics, which have to obtain sanctions before any action (Vyas & Wu, 2020). The use of ACA as an attack dog against political rivals undermines its effectiveness, e.g., the Central Commission for Discipline Inspection (CCDI) in China (Quah, 2017) and the NAB in Pakistan (Quah, 2021).

In the case of Pakistan, the ACEs and FIA are not autonomous and independent bodies as they report back to the Establishment & Administration Department and the Interior Division under Ministry, respectively. The undue bureaucratic (and political) checks like permissions required to take action against corrupt elements limit the operational autonomy, mandated role and effectiveness of the A-GBs (NACS, 2002; Sadiq, 2020). The Prosecution Division at the NAB is also not independent. An interference with due process and discriminatory acts violates the principles of natural justice, undermining the trustworthiness of A-GBs (Sadiq, 2020).

Conclusion

The accountability journey started in 1947 and now rests on the NAB Ordinance 1999. Over the period, an effective execution remains a key problem for the authorities. The intent of the promulgating government cannot be ruled out as almost all the laws except the PCA intend to crush and sideline political opponents. The PCA is the only law free from allegations of 'political victimisation'. This way, the intent of the government becomes significant in such promulgation. Authors believe that though the oversights and compulsory permissions are crucial to check the undue and unbridled powers of the A-GBs, it is unacceptable to make such bodies 'toothless tigers' as the incumbent government has done in the very recent move.

It has been discussed repeatedly that strict accountability implementation is the need of the hour. The point to be considered is that such implementation should strictly observe the constitutional rights, prevailing laws, and international conventions. The concept and sense of brutality imposed in various accountability laws in the past and KPEC and NAO recently do not propose any solution to such a 'chronic disease', i.e., corruption. A decent, respectable and systematic mechanism could have been followed up in the examples of ICAC, CPIB and NCCC having features like oversight and across-the-board accountability to replicate those systems in the Pakistani context. This way, the deterrence will be

there, and culprits will get captured while the innocent could save their dignity and respect from the clutches of the A-GBs.

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THE MEDIATING ROLE OF INNOVATIVE WORK BEHAVIOR BETWEEN PROACTIVE PERSONALITY AND EMPLOYEE'S CREATIVITY

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Abstract. *Studies suggest that employees need to be proactive and creative, since these behaviors are important for performing the job. Research studies of proactivity, creativity and their antecedents contrasted each other in developed and in developing countries. This study has explored the mediating role of innovative work behavior among proactive personality and creativity in public sector hospitals of Peshawar city. To test the hypotheses, grounded study was conducted with the sample of 190 doctors. The data confirmed a positive relationship between proactive personality and creativity and indicated a significant relationship with innovative work behavior. In addition, the results show that innovative work behavior does not mediate the relationship. The study has discussed suggestions based on findings for improving innovative work behavior for better performance and recommended that organizations should create working environment for innovative work behavior.*

Introduction

Organizations see constant growth and evolution through proactive employees. Whether introducing new technologies or making changes in system, advancement is always beneficial for long-term and it is due to creative employees. For continuous development, it is necessary to engage in activities that go beyond mental processes and to support creative environment and to capitalize on proactive employees (Xu, Loi, & Chow, 2022). A proactive person can cause things to happen. They don't wait for things to happen but act on the best information they have. Most people prefer to wait for something to happen before they do anything.

Van Van Dyne et al. (2000) argues that because of decentralization and volatile situation, managers cannot determine how hierarchical organizations behave with-

out prioritizing emergency situations. Therefore, it is important for the organization to represent workers' interests and solve problems (Crant, 2000). According to Spitzmuller and Van Dyne (2013) found that active behavior meets individual requirements like, personal development, wellbeing, and fulfillment. Proactive personality means develop predictions, stopping problems, and unlocking potential opportunities. It brings work to life, initiates efforts for change, and has an alternative vision of the future (Parker et al., 2010).

The active and imaginative capacity of workers is important for organizational performance, especially when professional samples are more adaptable than in the previously (Li et al, 2010). Microscopic, etc. (2012) details that proactive behavior is associated with skill development, job success, and other behaviors related to the work environment. Thus, Krant (2000) argues that having a positive personality means recognizing open doors, signaling change, and controlling situations that may be beneficial to open doors. Bateman and Krant (1993) understood it as a unique characteristic of an individual that influences events and is conspicuous enough to be known in writing. It creates advantages and ensures growth (George & Zhou, 2001). Innovation refers to focused thinking, innovations, methods, policies, governance, and cycle building (Woodman et al., 1993). Gon et al., (2012) stated that originality is found in creativity, it inherently creates basic jobs and organizational achievement.

Organizational environment could have different effects in different organization from individual qualities such as innovation (Zhou, 2003) and organizational characteristics such as the work situation (Shin & Zhou, 2003). Hypothetically, proactive representatives exhibit imagination, make changes, and rely on imagination. Insufficient research has examined the influence of a creatively active personality outside the U.S (Kim et al., 2010). In addition, by no means exploratory surveys are presented. Consequently, present study proposes to analyze the internal components of proactive character, imagination, and motivation in South Asian culture, with an emphasis on North-South Pakistan.

In today's rapidly changing world, Employee imagination is a fundamental consideration for hierarchical change, efficiency, perseverance, and success. Modern representatives can create new and useful ideas for hierarchical elements, administrations, cycles and strategies. Therefore, associations can use them to respond to the changing needs of business and customers, or to take advantage of market opportunities. Any employee who engages in creative behavior is considered important in determining organizational performance. Due to the growing importance and need for creativity in the workplace, many organizations are planning various measures to increase employee creativity. At the same time, researchers are trying to find effective factors and mechanisms that affect creativity, but there are still problems that need to be solved through further

research. One of these questions is the mechanism by which creativity can lead to personality (Kaukab, 2005).

Employee creativity, characterized by the generation of new and relevant ideas, including incremental and radical creativity, is widely recognized as a powerful driver of organizational innovation, survival, well-being, and long-term growth, and have taken pains to study the various stable, engaged factors that motivate employees to write something about OCB. The creation of new phenomena has received renewed academic attention. Empirical studies suggest that motivated employees look for approaches take more responsibility for change, or look for one internally Activated Emotions., this study focused only on examining the psychological mechanisms underlying the relationship between positive personality traits and employee creativity, ignoring the social perspective of these mechanisms (Rehman, 2012). Prior to this study another similar research was conducted by the author where motivation was investigated as mediator (Farooq et al., 2020). However, keeping the importance of innovative work behavior the same is incorporated as mediator between proactive personality and creativity.

Literature Review

Proactive Personality and Creativity

Liang and Gong (2013) argue that personality proactiveness is a social trait for observing and implementing progress. Proactiveness known as person attitude to participate in the dynamic direction of a project, for example, by initiating changes and controlling the status quo. Employees are willing to change, do business, and continue until there is a significant change in goal achievement (Crant, 2000). Bateman and Krant (1993) previously stated that proactive workers energetically try to find control and manipulate the climate in search of new data and practices for capital punishment deliberations. It has been suggested that the nature of a trademark affects creativity.

There is assent in writing that creativity of employees is a confounding oddity and that estimates of individual creativity are a source of ongoing evaluation (Runco, 2007). The idea of innovation always attracts people's attention (Ford & Harris, 1992). Innovation is a problem, and some found a mysterious path (Boden, 2005). Inspiration workers are involved in meaningful creative event planning, innovative products and management through agents working collaboratively in multi-layered social structures (Plucker et al., 2004).

Positive behavioral methods are strongly associated with representative intelligence (Kim et al., 2009). A single trademark affects inventiveness. Such drive and a disruptive formal job description are usually conveyed by proactive employees and influence the creativity.

Proactive representatives start changes in the organization to accomplish the ideal objectives. The work execution model found nine representative proactive actions (Griffin et al. 2007). The collective agreement to control work can improve work performance (Bateman & Crant 1993), it arouses curiosity (Major et al., 2006). Seibert et al. (1999) previously understood that agents proactively strive for to develop work practices to advance their profession. Choi and Thompson (2005) argue that the workers proactively seek potential open doors toward identify new strategies, communicate skills, and examine current ways of working. Therefore, innovation is at an extreme level that has refined various proactive ways to have it. The creator also claims that reps share work progress for a friendly and helpful workplace. Seiberto et al. (2001) also related these characters to workers, for example by developing innovative insights and showing development at work through imagination.

The decisions underlying these emotions remain no socially assured as well as require cross-cultural approval (Bindl, 2010). Li and Gardner (1993) place their imagination on Chinese culture, referring to the introduction of new technologies, the cultivation and management of new objects, and the responses to contemporary problems that have become entrenched in Western culture. Western philosophy also describes it as strange and appropriate (Amabile 1997; Oldham & Cummings 1996). Using Singapore as an example, Chan (2006) assumed that positive personality is strongly associated with creativity and a work style that produces results. In addition, Kim et al. (2009) also linked positivity to people's notions that they should be able to make assumptions about statements. Above findings indicted that, present study aims to analyze proactive employ play significant role in public hospital of Peshawar. The hypothesis developed below as.

Hypothesis 1: Proactive personality have significant effect on employee's creativity in public sector hospitals of Peshawar.

Innovative work behavior

Successful organizations must use the creativity of their employees to encourage new behavior in the workplace so that they can adapt to changes in the business environment (Allen, Smith, & Da Silva, 2013). Innovative work behavior means that employees generate and implement new ideas to improve productivity (Van Zyl et al., 2021), collaboration, or organizational performance while on the job. Despite the continued interest of researchers and business practitioners to drive innovation for the long-term success of organizations, research into business transformation behavior is still in its infancy. Collaboration is "a state of mind associated with positive and satisfying work characterized by energy, commitment, and engagement".

Several recent studies have reported that work participation has a significant effect on innovative work behavior. Using the lens of social exchange theory, it was hypothesized that employees who were more actively engaged, focused, and

focused were more likely to implement new ideas. When an organization's leaders create a positive work environment for their employees, employees are more engaged and employees can create more creative ideas for themselves, their teams, and the organization goes higher. As implied by this concept, creativity and invention are distinct but linked components. Innovation is usually an individual activity that involves generating entirely new ideas (Konno & Schillaci, 2021), whereas creativity is primarily an activity involving new conditional ideas, followed by general support, and finally the creation of new ideas or ideas for collective action.

In general, a leader's role is to provide the right tools and environments to support employees. However, Creativity and invention are essentially distinct and are influenced by a variety of predecessors. Indeed, contemporary theoretical frameworks indicate that employees require psychologically safe and secure environments. Appealing environments in which to engage in cognitively flexible thinking while unleashing their creativity. Conversely, employees need social control and legitimacy when innovating (Villani, Linder, Lechner & Muller 2021). This can be done with the assistance and agreement of the leader. Innovative ideas are rarely implemented until they are discussed with relevant and prominent group members. Certain leadership characteristics can be beneficial to creativity and innovation. However, we contrast the leadership styles studied by contemporary theorists with empirical claims that think on creativity and innovation independently relationship can be discovered.

First, the amount and direction of the purported effect sizes vary considerably, which are difficult to interpret, especially when obtaining medium-sized samples. For example, meta-analysis provides more reliable estimates of impact on the study population. Second, the improved power of meta-analysis research allows for more reliable estimation of moderate effects in individual studies. Third, many of the leadership variables described in the literature are problematic. When combined with other leadership qualities, (e.g., ethics, altruism) account for the distinct disparities between creative and innovative actions.

Moderators are inherently flexible. Traditionally used as a dispute resolution tool that allows parties to request deadlines and reach acceptable deadlines. However, the intervention process has many applications in epidemics or other situations (Rauschenberg et al., 2021). Different situations and situations will create some of the problems you may face, especially when working in groups or interacting with others in general. Arbitration rules or procedures can help the parties define a plan or procedure for advancing and resolving issues.

Organizational innovation depends on human behavior. Scott and Bruce (1994) define innovative behavior as a value creation process supported by new ideas, solutions and consumption. It begins by creating a new activity other than

consumption defines innovative behavior as a process that comprises three variables: a) generation, b) development and implementation, c) application and attempt to improve the process. Organization Creation of new ideas. Encouraging innovative behaviors means adopting new approaches and ideas.

Organizational success is influenced by sustainability. Innovative behavior is a political approach that differs from others in that it goes beyond the need to introduce new changes define innovative Most people expect behavior as a talent because of its impact on increasing organizational performance. The advantages of this new discipline were not only economic, but also spiritual. There are more of them because they contribute to social change. This leads to increased employee self-esteem and social change. Innovative behavior is a key success factor for an organization in many fields. Teachers need to influence teachers, so teachers need to include this in their teaching.

Proactive personality and innovative work behavior

Proactive personality perspective is a fruitful method to reduce or remove difficulties, forecast changes and evaluate the changes done. It involves self-initiated efforts to drive change in the workplace.

Parker et al. (2010) distinguish various proactive goals that workers want to achieve. It combines *'can',* 'motivates to' and *'empowers to'* linked to inspiring circumstances. The author finds that inspiration can come from a little knowledge of self-sufficiency and self-control. Inspirational motivation is related to why someone is being proactive and determines the reason. With increasing modern-day requirements, studies have found out the relationship between innovative work behavior with proactive personality. Proactive personality and innovative work behavior have been consistently increasing the productivity and growth of the organizations. Organizations which have adopted change management cycle and quickly transformed to modern day requirements are well ahead of those lacking or resisting innovations and proactive measures. Studies have shown that decision making as per current and modern trends and risk taking have brought fruitful results in the organizations where employees remain abreast of changes, act vibrantly and innovatively. Employees with innovative work behavior always work for better change in organization and transforming to latest trends rather becoming followers of change. Many innovations are strongly associated to creativity. These changes are adopted as challenge for firms as how to keep pace with competitors. Competitive advantage has also given rise to bring change in organizations.

Managers are encouraging innovative work behavior rather sticking to basics. Managers need more vibrant and proactive employees who can bring innovations in organizations for enhancing its productivity and growth (Afsar & Umrani, 2019). It has also been observed that personality-oriented changes which does not bring any prominent growth to the organizations have no long-lasting effect. Employees are also resistant to personality changes which temporarily may give

benefit to personality in terms of salaries increase, promotions and other privileges. But on the longer run, such abrupt and personality-oriented changes remain short of achieving targets thus employees become resistant to changes. Basing on the relationship between proactive personality and innovative behavior we can hypothesize that: -

Hypothesis 2: Proactivity has significant effect on innovative work behavior in public hospitals of Peshawar.

Sample and Data Collection

Sample is the right decision for researcher to get information from the population. It is an instrument of the entire population (Farooq et al., 2017). 190 doctors were selected as sample in the public sector hospitals of Peshawar city. There are 6 public hospitals in Peshawar city included Hayat Abad Hospital, Government Naseerullah Khan Memorial Hospital, Molvi Jee Hospital, Lady Reading Hospital, Khyber Teaching Hospital, and Siffat Ghayour Hospital. According to Health department KPK, 35 medical specialists work in hospitals. The sample framework for this study includes 735 doctors in scale BPS 17 or above.

In the basis of different locations, namely Peshawar, a targeted survey strategy of number of organizations (6 hospitals) and scale (BPS 17 and above) selected through simple random sampling technique. Total 330 survey forms were distributed among sample doctors, of which 190 were returned with a 57.57% response rate. 75% of the respondents were men with an average age of 38 and 25 % were women with an average age of 34 who participated in this study. The typical tenure is 9.5 years for male professionals and 7 years for female professionals.

Instrumentation

Respondents' proactivity creativity and innovative work behavior was measured through 7-point Likert scale (1 = completely disagree and 7 = completely agree) and employee inspiration on a 5-point Likert scale (1 = completely disagree and 5 = totally agree).

Proactive personality

For present study, 10 items from Seibert et al., (1999) and scale of Bateman and Crant (1993) was used to evaluate proactive personality. For instance, "*I am constantly on the lookout for new waysto improve my life,*" and "*If I see something I don't like, I fix it.*"

Innovative work behavior

The adopted scale from Gagne et al (2010) was used. Total 6 items were selected to measure innovative work behavior of employees.

Employee's creativity

George and Zhou (2001) scale were adopted to evaluate employee's creativity. Total 13 items were used from adopted scale. For example, the statement was about "the various combination of new approaches which will help to achieve the objectives and organizational goals and to foster performance"

Data Analysis and Interpretation

Table 1 *Descriptive Statistics*

Variables	M	SD	1	2	3
Proactive personality	5.63	0.66	(0.76)		
Creativity	5.31	0.84	0.54**	(0.68)	
innovative work behavior	4.58	0.71	0.52**	0.55**	(0.71)

n=190; Cronbach alpha. **significant correlation at 0.01 level (2-tailed)

Table 1 shows the implicit relationship, standard deviation, Cronbach's alpha, and factors of variables. This shows that the proactive person significantly related with creativity of employee (r=0.54, P<0.01) and the value of creativity and innovative work behavior (r=0.55, P<0.01). Similarly, the correlation between proactive personality and innovative work behavior is (r=0.52, P<0.01). Present qualities provide initial assistance for predictable assumptions. This table also includes Cronbach Alpha varieties. Cronbach Alpha benefits for Proactive, Creative, and innovative work behavior are 0.76, 0.68, and 0.71 separately. All items exceeded 0.7, showing that the data were not surprising (Hair et al., 1998).

Mediation and regression analysis

The mediate correlation appears after the basic assessment of the independent factor (A) in the predictor variable (C) followed by the average person (B). It makes sense that the C-Impact variables since A impacts B and B should impact C. The investigation of Aristocrat and Kenny (1986) places importance on examining intervention in the OB field. However, in this study, the Preacher and Hayes (2004) bootstrap test was performed due to dominance.

For analysis regression method was used as aims to investigate relationship between variables. Table 2 below shows that positive effect of creativity (β=0.55, P<0.05). Appearing in this case, determination and proactivity affected motivation levels (β=0.43, P<0.05), and motivation also affected creativity (β=0.15, P<0.05). All common numbers represent properties that cover a significant range, confirming the hypothesis is supported.

Table 2 *Regression Analysis*

	B	**t**	**Sig.**
Proactivity →Creativity	0.55	16.54	0.000
Proactivity→ Motivation	0.43	3.22	0.003
Motivation →Creativity	0.15	4.09	0.002

Mediating regression analysis

On the way to understand the effects of meditation, the procedure of Preacher and Hayes (2004) was applied, using a bootstrap component between the proactive character and the worker's imagination. This is a better test than Barron and Kenny (1986) and Sobel (Preacher & Hayes, 2004). Since a 95% confidence interval was obtained by setting up a bias correction technique using the bootstrap 4000 samples. According to Preacher and Hayes (2004), with a 95% CI, if there are no zeros anywhere on the image, the prediction indirect effect. roundabout, confirms that it is not completely controlled.

Table 3 *Mediation Impact of Motivation Among Proactivity and Creativity*

Path	Total effect	Direct effect[a]	Indirect effect[b]	95% CI	
				Low level	Upper Level
Pro→Mot→Crt	0.05	0.25	-0.2	-0.35	0.58

Table 3 shows that the direct impact of proactivity on creativity there (0.27, P<0.01) and the biased impact of innovative work behavior there (-0.20, P<0.01, 95% CI=0, 35, 0.58) is considered irrelevant. The normalized impact of proactivity and absolute innovative work behavior (direct and indirect) on innovation was 0.05, which should be a direct (unmediated) and a circular (interventional) impact of proactivity on creativity. This shows that while innovative work behavior diminishes by 1 standard deviation, creativity diminishes by 0.05 standard deviation. The results of this review indicate that the H3 hypothesis is unestablished and ignored to confirm that innovative work behavior intervenes in the relationship between proactivity and creativity.

Discussion and Conclusion

As a result, it remained found that there was a large positive relationship between positive personality and creativity. Kimetto Al. (2009) examined an equally broad relationship between creativity and proactivity. Bason (2018) recently focused on the public sphere and found a positive correlation between proactive personality and creativity. Additionally, the review found a positive correlation between being proactive personality and innovative work behavior. Major et al., (2006) found a similar positive relationship between being positive and being stimulated. Recent studies have confirmed a similar relationship (Grant & Berry, 2011; Parabhu et al., 2008). This review does not identify the task of

mediating role between innovative work behavior and proactive personality and creativity. A proactive person can cause things to happen. They don't wait for things to happen but act on the best information they have. Most people prefer to wait for something to happen before they do anything (Rehman, 2012).

Being proactive means making or controlling a circumstance instead of just responding to it after it has happened. That is you plan ahead of every situation correctly and in the most beneficial way to you or to your work organization. Being proactive in life is like playing a chess game just like you think twice before you do your move, think twice before taking any kind of decision (Ng & Feldman, 2013).

1. Make of list of all the things you can do
2. Consider the pros and cons
3. Once you have considered pros and cons see whether it's benefits you or not
4. Make a backup plan for every decision you take in case you have done some miscalculation.
5. Repeat step 2 and 3 in case of back up
6. Now you can be proactive (Ng & Feldman, 2013).

The theoretical contribution of this study is twofold. At first, we support in sharing information from multiple sources about the active nature and creativity of our employees. Other studies ignore the social perspective of creativity and only examine the direct impact of a positive personality on employee creativity or the psychological mechanisms underlying this association (Jiang & Gu, 2015; Kim, 2019; Li et al., 2019). Therefore, in order to fully understand the above context, it is important to understand the mediating effect of sharing information from multiple sources, since "*creativity is in some ways a social process*" (Perry-Smith, 2006).

Secondly, there is no structure of work and only limited open doors for progress. Inadequate resources in addition to management of exploration in government hospitals are one of the reasons for the demotion.

Paid opportunities to maintain medical journals to update opinions are not available to those serving in the rural areas of the country, they also did not get benefits from telemedicine.

With drugs are fake along with false details and reports from research laboratories, it is difficult to get the right treatment for patients. In the long term, you can trust specialists when the patient is destroying. In addition, conditions that do not exist in government hospitals also increase the well-being of specialists. There is no disinfectant toilet nor suitable place to have meals and life savers are demotivated.

A future direction is also outlined to overview by contrasting two different congregations of a similar region of Pakistani experts, for example Pakistani engineers' specialists and doctors or specialists with Bangladeshi specialists' relation to check if the interests of the two groups are those of the two doctors' groups which are from similar countries. Furthermore, the interests of the experts in the two nations are practically identical or not exceptional and differ. This will be an original effort in current literature.

Managerial Implications of Study

Proactivity, creativity, and innovative work behavior facilitate the changing conditions of the future. Defining and managing the creative nature of hospitals structures mediates positive changes in events that can then change and ultimately affect the state of hospitals in the public domain.

Because proactivity and creativity come with bundled benefits, this study aims to support the organization to support the doctor of public hospitals and emergency clinics to intricate development through empowering professionals toward support complex repairs through continued hospital development and improved patient outcomes.

This study uncovers the innovative work behavior mediators of proactive personality responses to individual creative thoughts and maps key government agencies to appropriate skills. Through this robust system, we propose to limit the prefrontal channels experienced by conflict zones. Doctors are target killing and disappearing aimed for the assassination rather than drawing their emotions from the government's environmental compensation. They are followed in the media and other social developments and forums.

The government authorities must ensure safety and respect for doctors. Taking an opportunity to protest, many doctors in Pakistan claim that Pakistan is trying to survive for the next 5 years, and that Pakistan may not have enough specialists' doctors. The Pakistan Medical Association (PMA) has raised these concerns. Therefore, authorities should improve salaries and work structure, include paid journals, and strive for clean conditions and regulations to avoid misrepresentation of research institutions. So, we can stop the doctors brain tract and increase the specialist's imagination and inspiration level by using the main inspirational structures. The proactive importance, inspiration, and imagination that this will bring will highlight the importance of specialists as a whole and draw government attention to understanding their concern.

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THE EFFECT OF SERVICE QUALITY THROUGH SATISFACTION ON LOYALTY IN HIGHER EDUCATION INSTITUTIONS

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Abstract. *One of the best ways for businesses to have good share in the market are required to be more quality oriented as compared to the*

competitors. This situation is similar at certain points when we relate it to higher education institutions, which plays a pivotal role in a country development. To compete in the international arena, higher education institutions should give importance to the services of units that contribute significantly to the development of R&D infrastructure. Keeping this understanding in mind, the purpose of the current research is to look into the relationship of service quality and loyalty in higher education institutions. The study will also look into the meditating role of satisfaction between this relationship. The study is a survey research and the tool for data collection is an adopted questionnaire. A total of 281 responses received are being analysed. Results show that there exists a weak and insignificant relationship between service quality and loyalty. However, the relationship between service quality and satisfaction is strong as well as significant. Similarly, the relationship between satisfaction and loyalty is also significantly strong. This supports the mediating role of the satisfaction. The results have implications for the higher education institutions. Managers are suggested to have more attention to the issue of development of quality of education in higher education institutions.

Introduction

Today, in parallel with the increasing competition conditions, there are many developments in every industry branch in terms of technology and organizational structures. Rapid changes and developments in the world affect service-based applications as well as product-based application Global intense competition conditions push organizations towards great diversification in the goods and services market. There is a need of having a collective approach to diversification in services and also of increase in the number of such competitors which may promote competition in the provision of quality of services. The best approach for

in the market is to focus on quality products that are of higher quality and differentiated from competitors. The association of this point of view with educational institutions has certain similarities. In this direction, it is possible to see higher education institutions (HEIs) as service businesses, carrying out activities to improve service quality to provide better service (Bayrak, 2007). In this way, trained human resource is the backbone and is vital in the development of countries, HEIs have a different service privilege compared to other enterprises.

HEIs are those institutions that not only provide individuals with professions but also significantly shape the way of life of society (Yüksel et al., 2018). Belash et al. (2015) discussed higher education institutions within the scope of the stakeholder theory approach. The authors argue that HEIs constitute a critical component of the education quality assurance system, able to respond to the needs and aspirations of its stakeholders. Alvarez and Rodriguez (1997) suggested that higher education institutions should have a structure that focuses not only on the needs of current students but also on the needs of administrative, academic, community, employers, and graduate students (Ulewicz, 2017). On the other hand, today's universities not only produce knowledge but also ensure the functioning and continuity of the market (Devebakan et al., 2019). The main motive behind the establishment of these institutions need not be restricted to impart such education by also shoulder the responsibility of training the necessary qualified, experienced and high-performance human resources, and those services that benefit the society, and services that will enable the development of scientific research projects (Bayrak, 2007).

In higher education institutions, Scientific Research Projects (SRP) coordination units are the leading units that provide infrastructure services in the realization of scientific studies for R&D. SRP coordination units have an important role in the scientific development of countries. Therefore, higher education institutions increasingly need SRP coordination units and their activities. When we look at the previous studies on quality in higher education institutions in Turkey, it is seen that studies on students' satisfaction generally come to the fore. Yüksel et al. (2018) stated that the expectations and satisfaction of all stakeholders, as well as students, should be taken into account in here.

The role of the quality assurance system has to be recognized as a pivotal in promoting competition among higher education institutions and ensuring continuous improvement in business processes. The Higher Education Quality Boards' recent audits and studies on quality and accreditation reveal the centrality of the quality assurance system in higher education institutions (Uludağ et al., 2021). The BAP coordination units in higher education institutions constitute an important pillar of the quality assurance system. Erol and Alpaydın (2017) emphasized in their study that it is of great importance to examine whether BAP units have sufficient infrastructure for the execution and evaluation of the scientific

projects they support. Before this study, no study has examined satisfaction with service quality understanding in BAP coordination units of universities in Turkey and investigated the effect of these variables on loyalty. With this study, it is expected that the SRP coordination units, which constitute an important pillar of the development of R&D services, will make an important contribution to the development of a sustainable quality understanding. Furthermore, it is required to make a well observed contribution towards the adaptation of the HEQB quality and accreditation requirements.

In this milieu of global competition, studies are needed to determine the effect of service quality perceptions of academic staff on satisfaction and loyalty in higher education institutions in Turkey. Despite the existing international literature, studies on this relationship in higher education institutions in Turkey seem very limited. This limitation motivated the author to produce this study. Academic staff (researchers) receiving services from the BAP coordination unit in a public higher education institution participated in this study. Therefore, this study is expected to address the existence gap and to contribute to the literature by proposing a conceptual model that is based on the existing literature with the aim to address the following questions:

1) What is the level of service quality of BAP coordination units within higher education institutions?
2) Does service quality in BAP coordination units within higher education institutions affect satisfaction?
3) Does service quality through satisfaction in BAP coordination units affect researchers' loyalty?

Literature Review

Service Quality

Different researchers have explained the concept of service quality in different words. As a whole, it refers to that aspect of the quality which is successful in meeting customer needs, requests, and expectations (İslamoğlu et al., 2006). For Parasuraman et al. (1988) service quality is the conceptual difference between consumers' perceptions and expectations regarding the services provided by a particular business. This means that quality of service will be termed high if it exceeds the expectations. As is an abstract concept, so to quantify it, many scales have been developed. The most widely used scale in the literature is the SERVQUAL. This was developed by Parasuraman et al. (1985) over ten service quality dimensions (Tzeng and Chang, 2011). Parasuraman et al. (1988) then re-evaluated this scale consisting of ten dimensions and reduced it to five dimensions to be used in different service groups. The new SERVQUAL scale has the

dimensions of tangibility, responsiveness, reliability, assurance, and empathy (Supriyanto et al., 2021).

Keeping the centrality of the concept, it has been studied in the context of several different industries, organizations and countries (Adikaram et al., 2015). Higher education institutions provide a unique environment for the review of service quality. While most of the studies on service quality in higher education focus on the student's perspective on quality, little attention is paid to the perspective of academic and administrative staff (Khodayari & Khodayari, 2011). Sultan and Wong (2011) asserted that knowledge and past experiences are important determinants in the creation and evaluation of service quality in the context of higher education. The authors categorized service quality as academic, administrative and facility service quality. It is possible to say that the examination of service quality in higher education institutions in Turkey is a subject that is needed in the literature. To respond to this need in the literature, it is necessary to examine the quality of academic and administrative services as well as the quality of campus facilities offered to students from a holistic perspective (Akyürek, 2021). From this point of view, one of the academic and administrative services in higher education is the project units that provide support for scientific research. Project units need to make adjustments to scope, timing and budget to meet the needs and expectations of the project team. Therefore, project units need to develop a good working relationship with all stakeholders and understand their stated needs to ensure stakeholder satisfaction (Muddasar, 2016).

Loyalty

Loyalty, by definition, is the willingness or commitment of customers to repurchase products or services from the same brand despite various obstacles (Ismanova, 2019; Ali et al., 2016). Many researchers (e.g., Zeithaml et al., 2018) have defined customer loyalty. These authors argue that customer loyalty is an action or strategy that provides a long-term competitive advantage, as well as a way of gaining and retaining customers. Customer loyalty is a measure of continuously increasing the profitability of companies (Bakrie et al., 2019). It has also been defined as consumer behaviour toward repurchasing an organization's products and services. Customer loyalty helps consumers to purchase products or services by recommending the organization to others and increasing their sales profitability in the future (Chandra et al., 2018). If we look into this concept from higher education institutions perspective, it is that state of affairs when the students of a university recommend their respective university to others or speak positively about the environment, and if they have the chance to get enrolment again, they would prefer their old university to continue their education (Shahsavar & Sudzina, 2017). Bakrie et al. (2019) term loyalty as a key factor for success in higher education institutions.

Besides, loyalty is considered as a prerequisite for economic success in companies, has been the subject of academic discussions and many empirical studies (Ganić et al., 2018). In the past years, the concept of loyalty has been the subject of intense attention in higher education institutions (Borishade et al., 2021; Bui et al., 2022; Justin et al., 2019; Subandi & Hamid, 2021; Supriyanto et al., 2021). The extant literature is replete with empirical studies wherein the researchers have found that evaluating the concepts of service quality, stakeholder satisfaction and loyalty together is of great importance for higher education institutions.

Satisfaction

Customer satisfaction is a concept expressed as meeting customers' needs, wishes and expectations. Customer satisfaction in service arises as a result of meeting the expectations of the customer from the service during the delivery of the service (Özgüven, 2008). Customer satisfaction is one of the most fundamental principles of quality management. For this reason, if one wants to meet customer expectations, one must have customer-oriented approach not only in the official documents but observed and experienced at the application level. However, the management should recognize and understand customer expectations and then has to mobilize all the organizational resource to meet these expectations (Şahin & Şen, 2017). It should not be forgotten that the satisfaction of the academic and administrative staff plays a key role in the sustainable success of higher education institutions, as well as the satisfaction of the students from the university (Yüksel et al., 2018). It will not be out of place to conclude that the future of educational institutions must determine stakeholders' expectations and needs and provide a management service that can meet these.

Service Quality and Satisfaction

Organizations have been facing tough competitions in the quality of service to the extent of customer satisfaction. And the toughness in this race is a sufficient proof to highlight its importance. The increasing importance of service quality in organizations has inspired many researchers to develop scientific studies (Zhu & Sharp, 2022). The extant literature has many empirical evidences regarding the relationship between satisfaction and service quality. For example, Tayyar and Dilşeker (2013) through their empirical research observed that there is a positive relationship between service quality and satisfaction. Similarly, Topsakal and İplik (2013) revealed the existence of a positive relationship between quality and satisfaction. Ali et al. (2016) researched international students at Malaysian public universities and found that service quality dimensions affect student satisfaction and institutional image. Kılıçlı et al. (2019) found that there is a positive and significant relationship between the quality perceptions and satisfaction levels of

patients who benefit from dental health services in a higher education institution. This result supports the results of many studies published in the literature (Alam, 2021; Borishade et al., 2021; Razak et al., 2021). It can easily be concluded from the extant literature that high perception of service quality leads to a high level of satisfaction. This empirical study will put this hypothesis to text. The hypothesis is as under:

H1: There is a positive relationship between the service quality perception and satisfaction among the academic staff in higher education institutions.

Service Quality, Satisfaction and Loyalty

According to Zeithaml et al. (1996), businesses prefer to retain existing customers instead of acquiring new customers due to new costs that may be incurred. This situation is also valid for higher education institutions under increasing competition conditions. In terms of corporate memory, the retention of existing staff is much less costly than the acquisition of new staff. Thus, the loyalty of administrative or academic staff is one of the main goals of most educational institutions. Therefore, loyalty in higher education institutions is only possible with satisfaction (Bui et al., 2022). In addition, Supriyanto et al. (2021) argued that customer satisfaction can lead to high commitment and loyalty. Borishade et al. (2021) also stated that service quality is the most important determinant of satisfaction and as a result, loyalty emerges. Bui et al. (2022) strengthened this statement by revealing that there is a significant relationship between satisfaction and loyalty and that satisfaction has a mediating role between service quality and loyalty. Ganic et al. conducted a study at a private university in Sarajevo and found that satisfaction has a significant direct and indirect effect on loyalty (Ganic et al., 2018). It is has generally been agreed that commitment, trust and customer satisfaction directly or indirectly affect customer loyalty in Germany. Subandi and Hamid (2021) found that service quality has a significant effect on loyalty and motivation through satisfaction. Furthermore, the authors argue that academic services significantly influence success and loyalty. Justin et al. (2019) found a significant and positive relationship between satisfaction and loyalty in a higher education institution in China. Annamdevula and Bellamkonda (2016) conducted a study on seven public universities in India and found that satisfaction has a significant effect on loyalty and also satisfaction has a mediating role between service quality and loyalty. Mansori et al., (2014), in their study of different higher education institutions in Malaysia, found that physical characteristics provided the highest impact on satisfaction from dimensions of service quality. In addition, it has been understood that satisfaction has a mediating role between service quality and loyalty. The significant relationship or positive effect (direct or indirect) between service quality, satisfaction and loyalty is consistent with the results of numerous studies in the relevant literature (Ali et al., 2016; Arrivabene et al., 2019; Borishade et al., 2021; Fernandes et al., 2013; Gould-Williams, 1999; Munizu & Hamid, 2015). Based on the results of previous studies, it is possible to say that

service quality and satisfaction are important determinants of loyalty (Supriyanto et al., 2021). As a result of the literature review, the following hypotheses were developed;

H2: There is a positive relationship between satisfaction and loyalty among the academic staff in higher education institutions.

H3: There is a positive relationship between the service quality perception and loyalty among the academic staff in higher education institutions.

H4: Satisfaction of academic staff in higher education institutions has a mediating role between service quality and loyalty.

In the light of the extant literature on the subject issue and its importance in higher education institutions, the current research would put to test the following model empirically.
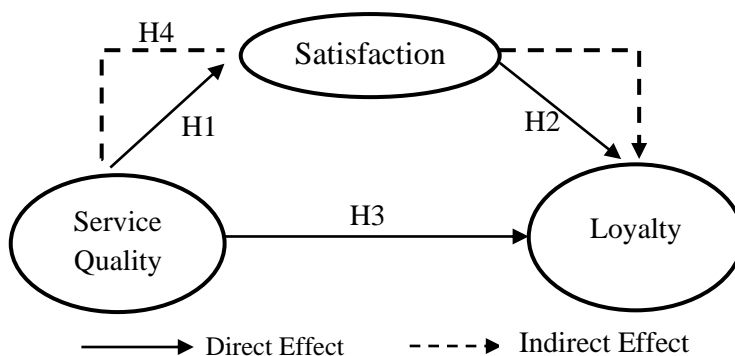
Figure 1: Research Model

Materials and Methods

The survey method was used to obtain the necessary data for the research. As a result of a comprehensive literature review, a survey form suitable for the purpose of this study was prepared. The survey consists of two parts. The first section includes statements regarding the demographic structure of the participants. The second section contains statements related to service quality, satisfaction and loyalty. While service quality consists of five dimensions (physical characteristics/tangibles, reliability, responsiveness, assurance, empathy), satisfaction and loyalty variables consist of a single dimension. The SERVQUAL method, which is widely used in the literature, was used to measure service quality (Ersöz et al., 2009; Tzeng and Chang, 2011). To measure loyalty and satisfaction variables, the scales used by Chandra (2018), Annamdevula and Bellamkonda (2016) and Kılıçlı et al. (2019) were used. The level of participation of the

statements in the survey (*1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree*) was formed as a 5-point Likert type. The survey was uploaded to the project automation system of the SRP coordination unit. Academic staff participated in the survey online through this system. Data analysis was performed using "SPSS 26" and "AMOS 24" statistical programs. The demographic characteristics, correlation analysis between variables, reliability and validity analyses were conducted through SPSS software. Confirmatory factor analysis (CFA) and structural model analysis were performed using AMOS software.

Population and Sampling

The study population consists of academic staff who received services from the SRP coordination unit in 2021–2022. Throughout the mentioned dates, a total of 971 researchers received services from the SRP coordination unit. The sample size was calculated as 275 within the 95% confidence interval and 0.05 sampling error (Retrieved 27th October, 2022 from www.surveysystem.com). In the study, feedback was obtained from 281 participants.

Analysis and Findings

Detailed information about the demographic characteristics of the participants is presented in Table 1 below.

Table 1: *Information on Demographic Characteristics (N= 281)*

Variables		**N**	**%**
Gender	Female	68	24.2
	Male	213	75.8
Age	20 – 29	4	1.4
	30 - 39	78	27.8
	40 - 49	117	41.6
	Above 50	82	29.2
Working Area	Sciences and Engineering Sciences	143	50.9
	Health Sciences	70	24.9
	Social Sciences and Humanities	68	24.2
Working Time	1 – 5	27	9.6
	6 – 10	83	29.5
	نومبر-15	48	17.1
	16 – 20	32	11.4
	Above 20	91	32.4

When Table 1 is analysed, it is seen that 24.2% of the participants are female and 75.8% are male. When the age range of the participants is analysed, it is seen that the participants between the ages of 40-49 constitute the highest rate with a high rate of 41.6%, while the participants in the 20-29 age range have the lowest rate with a rate of 1.4%. While the rate of science and engineering sciences in the study area is high (50.9%), the rate of researchers in the fields of health sciences

and social and human sciences is close to each other. Moreover, the proportions of researchers in the fields of health sciences and social sciences and humanities are close to each other. When the working time of the researchers is analysed, it is understood that the highest rate of working time is 21 and over (32.4%), while the participants with 1-5 working time (9.6%) have the lowest rate.

Descriptive Statistics

Table 2: *Descriptive Statistics of Variables*

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Tangibility	3.72	0.05	-0.86	1127.
Reliability	3.68	0.05	-0.88	0.91
Responsiveness	3.69	0.05	-0.82	1068.
Assurance	3.80	0.05	-0.86	1073.
Empathy	3.60	0.05	-0.50	0.26
Service Quality	3.70	0.05	-0.79	1042.
Loyalty	3.76	0.05	-858.	0.95
Satisfaction	3.80	0.05	-0.85	0.86

Table 2 shows that among the variables evaluated within the scope of the research, the variables of satisfaction (3.80) and assurance (3.81) have the highest mean, while the variable with the lowest mean is the empathy variable (3.60). In addition, among these variables, service quality has the lowest standard deviation (0.045), while the reliability dimension has the highest standard deviation (0.051).

One of the analyses that should be tested before proceeding to the analyses related to the data set is normality analysis. The indicators that must be considered in normality analysis are skewness and kurtosis values. According to Kalaycı (2008), skewness and kurtosis values between -2 and +2 indicate that the data are normally distributed (Karadeniz et al., 2019). Therefore, it is possible to say that the data are normally distributed according to the skewness and kurtosis values in Table 2.

Correlation Analysis

Another important issue that must be considered before proceeding to hypothesis testing is the correlation analysis among variables. Correlation analysis helps to determine whether there is multicollinearity between variables. It is said that multicollinearity exists when the correlation coefficient between the variables has a coefficient of 0.90 and above (Kılıçlı, 2022). The results of the correlation analysis between variables are presented in Table 3 below.

Table 3: Correlation Analysis Results between Variables

Variables	1	2	3	4	5	6	7	8

Tangibility	1.00						
Reliability	0.74**	1.00					
Responsiveness	0.76**	0.88**	1.00				
Assurance	0.70**	0.84**	0.89**	1.00			
Empathy	0.70**	0.81**	0.87**	0.85**	1.00		
Service Quality	0.85**	0.83**	0.86**	0.82**	0.82**	1.00	
Loyalty	0.61**	0.70**	0.66**	0.64**	0.64**	0.71**	1.00
Satisfaction	0.76**	0.81**	0.85**	0.84**	0.86**	0.89**	0.87**	1.00

*N:240; **p<0.01.*

Results in Table 3 show that there in issue of multicollinearity among the variables as none of the values exceeds the limit of 0.9. The results also exhibit the existence of a statistically significant and strong relationship between service quality, loyalty, and satisfaction [($r = 0,890;0,706$), $p<0,01$]. In addition, the results also show the existence of a positive and statistically significant correlation among all service quality dimensions loyalty and satisfaction ($p<0,01$).

Reliability and Validity Analysis

The reliability of the variables used in this study was tested by internal consistency analysis. In the internal consistency analysis, in addition to Cronbach's Alpha value, the Composite Reliability analysis method, which has been commonly used by researchers in recent years, was used. Cronbach Alpha (CA) and Composite Reliability (CR) values of 0.70 and above (CA≥0.70, CR≥0.70) indicate that the statements in the scale are at a reliable level (Yaşlıoğlu, 2017). Additionally, construct and convergent validity were used to test the scales. Confirmatory Factor Analysis (CFA) was used to measure the construct validity of the dependent and independent variables, and the AVE (Average Variance Extracted) value was used to measure convergent validity. In this study, the lower limit value of factor load was taken as 0.40 (Annamdevula and Bellamkonda 2016). To ensure construct validity, the AVE value is expected to be greater than 0.50 and also the CR values are expected to be greater than the AVE value (*CR>AVE; AVE>0.50*) (Borishade et al., 2021; Yaşlıoğlu, 2017). The findings regarding the CFA results and reliability-validity values of the scales used in the study are shown in Table 4.

Table 4: *Reliability and Validity Analysis Results*

Scale/	Statements	Factor load	CR	CA	AVE
Tangibility (TAN)	The unit has a modern equipment	0.72***			
	The internal environment and offices of the Unit are pleasing to the eye	0.54***			
	The employees are skilled. clean and neat in appearance	0.87***	0.74	0.85	0.53
	The tools and equipment used are attractive to the eye.	0.74***			

Reliability (REL)	The timely fulfillment of promised services	0.78***			
	Sincere interest in the requested services	0.84***	0.76	0.88	0.64
	Providing the right service. the first time	0.83***			
	Keeping records regularly and accurately	0.75***			
Responsiveness	Declaring when the service will be provided	0.73***			
	Trying to provide service as soon as possible	0.85***	0.77	0.89	0.66
	Always willing to help	0.86***			
	Never reported busyness	0.83***			
Assurance (ASS)	Employees create a sense of trust in researchers	0.92***			
	Feeling safe in relations with the unit	0.92***	0.79	0.93	0.67
	Employees are always courteous	0.85***			
	Employees have the level of knowledge to respond	0.82***			
Empathy	Employees are taking care of the needs of the researchers	0.81***			
	Having appropriate working hours	0.73***			
	Putting the interests of researchers above all else	0.72***	0.75	0.86	0.57
	Employees understand the specific requirements	0.77***			
Loyalty	The positive impression created by the unit	0.87***			
	The unit meets the needs and expectations	0.74***			
	Willingness to share the positive impression created by the unit through social media etc.	0.79***	0.8	0.91	0.7
	Being proud to be associated with the activities offered by the unit	0.93***			
	Desire to benefit from the services offered again	0.88***			
Satisfaction (SAT)	Satisfaction with administrative and support services	0.83***			
	Easy and accessible facilities offered by the unit	0.75***	0.78	0.93	0.65
	Recommending the unit to the environment	0.90***			
	Overall satisfaction with the services	0.95***			

*N:240; ***p<0.001.*

Table 4 illustrates that the service quality scale consists of five dimensions (tangibility, reliability, reliability, enthusiasm, assurance, empathy), while the loyalty and satisfaction scale consists of one dimension. As a result of CFA, the factor loads of the expressions related to the variables varied between 0.544 and 0.950. When the factor loads of the statements are analysed, it is seen that all factor loads are above 0.40 and statistically significant ($p<0.001$). Moreover, AVE values of the dimensions are above 0.50 (*AVE>0.50*) and CR values are greater than AVE values (*CR>AVE*). From this point of view, according to Yaşlıoğlu (2017:78), it is possible to say that the variables used in the research provide structural and convergent validity. According to Yaşlıoğlu (2017), it is possible to say that the variables used in the research provide structural and convergent validity. In this case, there is no need to remove any statement in the scale. In addition, it is possible to say that the statements in the scale are suitable for the purpose and scope of the study. When the results regarding the reliability of the variables in Table 4 are analyzed, it is understood that the CA and CR values are above 0.70 (*CA≥0.70, CR≥0.70*). This result indicates that 29 expressions of the variables have a reliable and valid structure.

Structural Model Analysis and Testing Hypotheses

Path analysis was used to determine the direct and indirect effects of the variables used in this study. Path analysis is a multi-directional structural model used to examine the direct and indirect effects between multiple independent and dependent variables, which leads to more reliable and consistent results. Path analysis can calculate measurement errors between variables. This feature makes path analysis more advantageous than traditional regression analysis. (Gürbüz & Şahin, 2018).

In the literature on the mediation effect between variables, there is more than one traditional approach, such as the causality approach of Baron and Kenny (1986), the Sobel and Goodman test (Yılmaz & Dalbudak, 2018). When we look at the research conducted in recent years, the contemporary approach is preferred in mediating effect models due to the criticisms made of the traditional approaches. Contemporary approaches can produce more reliable and valid results than traditional approaches (Gürbüz, 2019). In this study, Bootstrapping method, one of the contemporary approach methods, was used to mention the mediation effect and the number of 5,000 was preferred. In the analyses made with the bootstrapping method, 95% confidence interval (CI) values were taken into account in the validity and significance of the research hypotheses. Confidence interval values should not include zero (0) values. Otherwise, it is not possible to mention any mediation effect (Kılıçlı, 2021). The structural model used in testing the hypotheses developed in the research is presented in Figure 2 below.
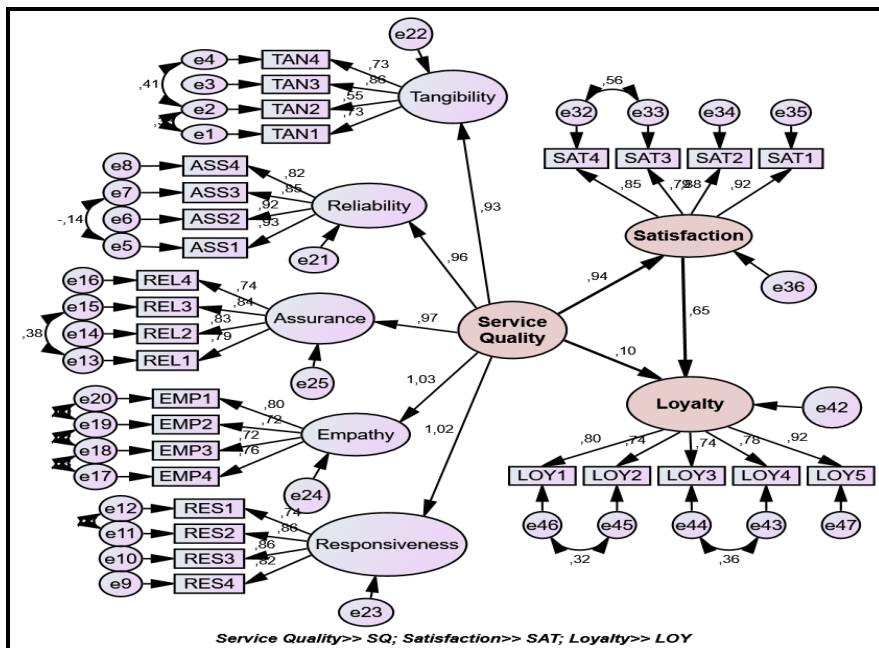
Figure 2: Structural Equation Model (SEM)

The goodness of fit values should be examined to determine the reliability and validity of the structural model presented in Figure 2. In the literature, it is possible to find a large number of the goodness of fit values. In this study, the goodness of fit values, which are frequently used by researchers, are included (Wantara, 2015; Annamdevula and Bellamkonda 2016; Alkhamis, 2018; Munizu and Hamid, 2015). At first, while testing the structural model, it was understood that the goodness-of-fit values were not within the accepted limits. For the goodness-of-fit values to be within the values accepted in the literature, modifications between some error terms in the structural model were made (Figure 2). After the corrections made between the error terms, the analysis continued. As a result of the analysis, it was understood that the structural model provided the desired goodness of fit values. The goodness of fit values for the structural equation model are presented in Table 5 below.

Table 5: *SEM Goodness of Fit Values*

Index	Excellent fit values	Acceptable values	Model value	Result
χ^2/df	≤ 3	$3 \leq \chi^2/df \leq 5$	2.77	Excellent
RMSEA	≤ 0.05	≤ 0.08	0.079	Acceptable
SRMR	≤ 0.05	≤ 0.08	0.046	Excellent
CFI	≥ 0.95	≥ 0.90	0.92	Acceptable
GFI	≥ 0.95	≥ 0.85	0.8	Bad
IFI	≥ 0.95	≥ 0.90	0.93	Acceptable
CMIN($\chi 2$) =991.50 (p<0.001). df=358				

In Table 5, it is shown that χ^2/df and SRMR goodness of fit values are at an excellent level. Furthermore, other goodness of fit values (RMSEA, CFI, IFI) is within the accepted limits (except GFI). Based on the goodness of fit values shown in Table 5, it is possible to conclude that the developed structural model is generally reliable and appropriate. This result is an indication that the data used in the study are compatible with the structural model.

The direct and indirect effects between the dependent and independent variables within the scope of the structural equation model and the results of the hypotheses developed in the study are shown in Table 6.

Table 6: *Results of SEM and Research Hypotheses*

Variables	Total Effect						
	B					**β**	
SQ→LOY	0.66					0.72	
	Direct Effect						
	B	β	S.E.	C.R.	p	Hypothesis	Result
SQ→ SAT	1.2	0.94	0.09	12.8	0.000***	H1	**Accept**
SAT→ LOY	0.5	0.65	0.15	3.29	0.00**	H2	**Accept**
SQ→ LOY	0.1	0.1	0.18	0.52	0.6	H3	**Reject**
	Indirect Effect						
	B	*B*	Bootstrapping (Lower Bound/ Upper Bounds) %95 CI			Hypothesis	Result
SQ→ SAT→LOY	0.568	0.614	0.209/1.193			H4	**Accept**

In Table 6, the path coefficient shows the direct effect of service quality on satisfaction, is a high coefficient of approximately 0.94 ($\beta=0.941$). A one-unit increase in service quality will lead to a high increase of 0.94 units in satisfaction. Moreover, this effect is statistically significant. This result shows that service quality has a positive and statistically significant effect on satisfaction ($\beta=0.941$; $p<0.001$). This relationship is a one-way, positive and significant structural

relationship. Accordingly, it is possible to say that the H1 hypothesis, which is one of the research hypotheses, has been confirmed.

Regression coefficient in table 6 reflects the direct effect of satisfaction on loyalty is approximately 0.65 (β=0.*653*). A one-unit increase in satisfaction will lead to a 0.65-unit increase in loyalty. Moreover, this effect is statistically significant. This shows that satisfaction affects loyalty positively and statistically significantly (*β=0.653; p<0.01*). This relationship is a one-way, positive and significant structural relationship. Accordingly, it is possible to say that the H2 hypothesis, which is one of the research hypotheses, has been confirmed.

Table 6 shows that the total effect (direct and indirect) coefficient of service quality on loyalty is approximately 0.72 (*β=0.715*). This total effect shows that by including all variables in the model, service quality affects loyalty with a high coefficient of 0.72. However, the direct impact of service quality on loyalty is as low as 0.10 (*β=0.101*). It is possible to say that the direct effect of service quality on loyalty is weaker than the total effect. According to the direct effect, a one-unit increase in service quality will lead to a low increase of 0.10 in loyalty. This effect of service quality on loyalty is statistically insignificant. Thus, as a result of SEM, although the effect of service quality on loyalty is positive, it is statistically insignificant (*β=0.101; p>0.05*). This relationship is a one-way, positive and insignificant structural relationship. Accordingly, it is possible to say which one of the research hypotheses, H3, is not confirmed.

Table 6 includes information related to indirect impacts as well as direct impacts. This mediating effect is the mediating role of satisfaction, which is the fourth hypothesis of this study. The effect of service quality on loyalty through satisfaction is approximately 0.61 (*β= 0.614*). Bootstrapping test was applied to calculate whether the mediation effect of satisfaction is significant and valid. In order to talk to mention any mediating effect, we have stated above that the lower and upper confidence intervals should not contain the value of zero (0) as a result of the Bootstrapping test. According to the 95%CI results in Table 6, is understood the lower and upper confidence interval values do not include the value 0 [*%95CI (0,209/1,193)*]. This result indicates that satisfaction has a mediating role between service quality and loyalty. As a result of the analyses, it is possible to say that the H4 hypothesis, which is one of the research hypotheses, has been confirmed.

Discussion and Result

Service quality and satisfaction

As a result of SEM analysis, service quality has a positive and statistically significant effect on satisfaction (Table 6). Therefore, it is possible to say that the high effect coefficient of service quality on satisfaction *(β=0.941; p<0.001)*

supports the results of previous studies (Alam, 2021; Ali et al., 2016; Annamdevula & Bellamkonda 2016; Borishade et al., 2021; Brown & Mazzarol, 2009; Kılıçlı et al., 2019; Razak et al., 2021; Singh and Jasial, 2021). This study reveals that service quality may be the most important factor affecting the satisfaction of researchers (Giovanis et al., 2014). This result also confirms Wantara's (2015) statement that "service quality is the premise of satisfaction". Inadequate services provided by researchers, managers, employees, or other supporting elements can lead to reduced performance of researchers. According to the results of this study, it is possible to say that service quality has a vital role in the satisfaction and motivation of researchers.

Satisfaction and loyalty

It is understood from the analysis of this survey reveals that the effect of satisfaction on loyalty is positive and statistically significant (Table 6). This result confirms the hypothesis that satisfaction affects loyalty. Also, supports the idea of Subandi and Hamid (2015) that "the higher the satisfaction, the higher the loyalty". In this study, it can be said that the positive effect of satisfaction on loyalty in higher education institutions is in line with this idea. In addition, this result is consistent with the results of many studies in the literature (Annamdevula & Bellamkonda, 2016; Chandra et al., 2018; Justin et al., 2019; Munizu & Hamid, 2015).

One of the hypotheses developed in this study is the hypothesis regarding the mediating effect of satisfaction. The result shows that when researchers are satisfied with the services provided in higher education institutions, researchers' loyalty is ensured. Based on this result, it is possible to say that satisfaction mediates between service quality and researchers' loyalty. Kotler (2005) argues that the satisfaction created by quality will also bring consumer loyalty. The author states that the high satisfaction provided by the quality affects not only the rational preferences of the consumers but also the emotional attachment to a particular brand (Bakrie et al., 2019). Therefore, this mediating role of satisfaction between service quality and loyalty supports the idea of Kotler (2005). Moreover, this finding is consistent with studies in the field of marketing, which reveal that satisfaction is the most important antecedent of loyalty (Borishade et al., 2021). The result regarding the mediating role of satisfaction confirms the results of previous researches (Borishade et al., 2021; Bui et al. 2022; Subandi & Hamid, 2021). However, these results are not in line with some other researches (Bakrie et al., 2019; Ismanova, 2019).

Service quality and loyalty

Based on the results of the study, researchers' perceptions of service quality have an insignificant effect on loyalty. Gould-Williams (1999: 113) emphasizes that service quality is an important strategy to retain existing customers. Because, according to the author, superior service quality also brings loyalty. Thus, the

author emphasizes that service quality plays an important role in ensuring customer loyalty. In this study, the weak and insignificant effect of service quality on loyalty contradicts the theoretical theory emphasized by Gould-Williams (1999). Although the insignificant relationship between service quality and loyalty in this study contradicts the results of many studies in the literature (Annamdevula & Bellamkonda, 2016; Borishade et al., 2021; Bui et al., 2022; Chandra et al., 2018; Justin et al., 2019; Munizu and Hamid, 2015; Subandi and Hamid, 2021;), it also supports the results of most studies (Bakrie et al., 2019; Chandra et al., 2018; Ganic et al., 2018; Li, 2013; Supriyanto et al., 2021). This situation indicates that studies that examine the relationship between the quality of services and loyalty in the literature do not match common ground. Therefore, it is possible to say that more studies are needed for studying the relationship between these variables to produce clear and consistent results.

Managerial implications, future work and limitations

A service business needs to measure the quality of the services it provides to have a sustainable quality understanding. Only in this way can it improve its services and ensure customer satisfaction or loyalty (Yılmaz et al., 2007). Performance measures may vary according to the standards of organizations and the services they provide. Customer loyalty, especially in public service organizations, can be affected by various internal or external factors. It is understood from previous studies that the best performance measure from outside the organization comes from the satisfaction perception of stakeholders.

Based on the results of the analyses, the weak and insignificant effect of service quality on loyalty is an important issue that managers should focus on. Academic staff who conduct research have an important share in the development of the quality of education in higher education institutions. Therefore, improving the opportunities for researchers will provide higher education institutions with a significant competitive advantage. The high service quality of SRP coordination units, which have an important place in supporting R&D activities, will bring satisfaction and loyalty. This will make a significant contribution to the publication of more quality articles by researchers in journals with high impact or to the realization of more high-value-added projects. Therefore, managers should give more importance to a maximum service quality understanding to gain the loyalty of researchers. Therefore, higher education institutions should strive to increase service quality to enhance students' satisfaction, institutional reputation, and ultimately researcher loyalty (Bakrie et al., 2019).

It is possible to mention the scarcity of studies on service quality perceptions, satisfaction and loyalty of academic staff in higher education institutions in Turkey. The idea that it will make an important contribution to the literature by

taking advantage of this gap has been a source of motivation for the formation of this study. Because, considering the service quality, satisfaction and customer loyalty of SRP units, which have an important place in the development of R&D activities in higher education institutions, as a whole, searching the relationship between them and evaluating the results will make an important contribution to the field. SRP units have as important a role in the international competitiveness of higher education institutions as other national supporting institutions. Researchers make important contributions to science with the support they receive from these units. In addition, their support for master's degrees, Ph.D. and postdoctoral projects enables the development and training of many researchers. It is possible to say that this study will be a guiding source in terms of shedding light on the researchers who will work in this field in the future, the BAP units in other universities and the aspects of these units that are missing or need to be developed. In addition, by using these variables, a comparative analysis between private or public institutions and organizations can be made to contribute to the related literature. Adding different variables such as institutional image, research costs, and competitive advantage to the variables used in the research will provide more scientifically different results.

The limitation of this study is that it was applied in a unit that provides support to R&D activities in a public university. Therefore, the findings of the study cannot be generalized to the SRP units of all universities in Turkey.

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ASSESSING THE EFFECT OF WORKPLACE SPIRITUALITY AND SPIRITUAL INTELLIGENCE ON PSYCHOLOGICAL WELLBEING OF HEALTHCARE EMPLOYEES IN THE PERIOD OF COVID-19: A CASE FROM KARACHI, PAKISTAN

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Abstract. *This study examines the impact of workplace spirituality, and spiritual intelligence on the psycholo-*

gical well-being of employees in Karachi, Pakistan. In this study, the explanatory research type was executed by adopting the deductive approach to test the framed hypothesis of the study. Moreover, 350 respondents were taken as a sample particularly employees employed in the hospital were selected for data collection and gave responses based on their availability. For the investigation of the data, SPSS was used. The study outcomes specified that there was a noteworthy association among workplace spirituality, spiritual intelligence, and the psychological well-being of employees. Furthermore, there was a statistically substantial effect of workplace spirituality and spiritual intelligence on the psychological well-being of employees. Organizations should focus on improving spiritual intelligence and spirituality at work to manage the psychological well-being of their employees because it ultimately affects the organization's performance. Therefore, to enhance the psychological well-being of healthcare professionals' managers must focus on providing training to improve the workplace spirituality and spiritual intelligence to deal with the current confronted challenge that is COVID-19 and to prepare them for the forthcoming challenges.

Introduction

The well-being of employees is equally valuable for workers and organizations. Employees spent a noteworthy part of their life putting their efforts for the betterment or enhancement of the organization. Henceforth, the organization must encourage the well-being of employees in the workplace (Harter, Schmidt & Keyes, 2002). Therefore, referring to one aspect of well-being is workplace spirituality. Staude (2005) indicated that spirituality is viewed as a process of transformation that plays a consolidative part to integrate the different shreds of

life including the physical side as well as emotional facets along with occupational, intellectual, and rational sides as well. As a result, spirituality includes the facet of connectedness that is aligned with not only oneself but also others and a superior meaning or presence towards the work or environment. Thus, well-being among employees in organizations is a significant problem that should inhabit a much more projecting place in the mainstream for some reasons in the organizational study, not in normal circumstances but also conditions like COVID-19 (Danna & Griffin, 1999; Durmuş & Durar, 2022). In a stressful environment especially during and after Covid 19 spirituality can help employees to manage their stress effectually to perform better (Chand & Koul, 2012; Rogers et al., 2022).

As per Killinger (2006), spiritual workers are seen as more optimistic as well as having work meaningfulness which eventually helps them to perform efficiently. On the other side, stress induced by workaholism due to the presence of the Covid 19 situation can lead to affect emotional and spiritual well-being (Rogers et al., 2022). Furthermore, affected well-being in the presence of stress at the workplace can lead to higher absenteeism and low-performance level which in turn increase the organizational expenditure as well in the form of claims related to health compensation by employees (Bhui, Dinos, Galant-Miecznikowska, de Jongh & Stansfeld, 2016). Deal with the challenges posed above during and after the Covid 19 situation, spiritual well-being is the major factor to deal with challenges (Kelley, Dollahite, James, & Marks, 2022).

Referring to the other side of the spiritual aspect is spiritual intelligence. As per Zohar and Marshall (2000) explanation it is a kind of intelligence that can supplementary progress the life of people and related activities to help them to understand their meaningful responsibilities is delineated as spiritual intelligence. Therefore, the higher the spiritual intelligence an individual has perhaps the fallouts in better relations with others and better quality of life (Young, 2012). Accordingly, spiritual intelligence is measured as the capability to do actions with intelligence by giving meaning to every behavior and understanding other feelings while conserving their inner as well as outer peace through developing spiritual intelligence level regardless of the confronted conditions such as Covid-19 (Kessi, Suwardi, Mukhtar, Asmawiyah, & Pratiwi, 2022; Syahidah & Farida, 2022; Wigglesworth, 2011). According to Spreitzer and Porath (2012), employees' well-being is a critical facet nowadays of organizational existence and growth globally. Spirituality has been primarily focused on existence as well as having control to maintain person's inner being and peace level.

Therefore, the presence of the spirituality facet can vary from person to person. Employees nowadays in organizations are suffering from problems linked to a low sense of community along with having self-esteem and spiritual presence, absence of meaningfulness towards the work as well as immorality which in turn result in producing anxiety and organizational politics among employees (Ibrahim et al.,

2020; Khodayarifard, Mansouri, Besharat, & Lavasani, 2019; Nasina et al., 2011; Neal, 2000). Organizations are now facing a new challenge regarding the management of human resource well-being. Today, working is an important part of an individual's life which in turn, employs an undue impact on an individual's well-being on performance level. What drives success both inside and outside the workplace is employee well-being (Tina & Wendy, 2017). It becomes significant to study the relationship between psychological well-being as well as spirituality at the workplace, and spiritual intelligence.

Our study makes several offerings to the extant literature: firstly, the workplace spiritual impact has been assessed with psychological well-being. Secondly, through this study, an effort has been made to find out the extent spiritual intelligence contributes to psychological well-being. Thirdly, this study has been conducted among hospital employees in Karachi, Pakistan at finding out the impact of workplace spirituality and spiritual intelligence on psychological well-being.

2.   Review of Literature

2.1   Workplace Spirituality and Psychological Wellbeing

According to Emmons (2000), spirituality can be seen as a quality that is needed to be intricate as well as present in every worker to a slightly dissimilar degree, and individuals go beyond the physical as well as the material world in order to experience a greater level of self-realization through spirituality. Moreover, Krishnakumar and Neck (2002) spirituality is accentuated as a perpetual exploration aimed at giving meaning and fulfillment to life. In addition, spirituality present in the workplace might perhaps be considered to be at all levels including individual, group, and organization as well that as explained by researchers like Milliman et al. (2003) and Pawar (2008). Conferring to Krishnakumar and Neck (2002) and Muavia, Hussain, Sahibzada and Ismail (2022) at the level of the individual workplace spirituality is demarcated as a phenomenon in the workplace that reflects worker experiences concerning having a sense of meaning and purpose in life, community, along with belonging to the organization and transcendence at work. On the other side, workplace spirituality at the level of group spiritual climate is displayed through significance along with having a meditative level of experience at work, a sense of social work, community, as well as environment together with authenticity.

Furthermore, from the level of organization, spirituality is demarcated through the culture that encourages workers to experience transcendence via processes intricate in the workplace to facilitate the environment of connectedness which in turn fallouts to giving inclusiveness as well happiness feelings (Giacalone & Jurkiewicz, 2003). Moreover, there are three constituents of workplace spirituality

that have been recognized by researchers like Ashmos and Duchon (2000) which contain the inner life, meaningful association with work, and a sense of belonging in the direction of the betterment of the community. Whereas interconnection is the presence among the factors like higher power, human beings, and environment, as well as including living belongings (Liu & Robertson, 2011), and social responsibility fulfillment by the corporate and in-house (internal) marketing (Vasconcelos, 2011).

Zou and Dahling (2017) noticed that workers with a higher level of spirituality were protected from harmful influences on subjective well-being. According to Keyes (2002), subjective well-being is a way to denote psychological well-being and proposes that emotional well-being encompasses emotional vitality whereas psychological and social well-being comprises positive functioning. Positive psychological or subjective well-being is a collection of three kinds of well-being specifically: emotional together with psychological, as well as social side. According to Friedli (2009), psychological well-being is considered a state whereby persons distinguish their abilities to manage their life and work stresses effectively and productively and contribute positively to their society.

The well-being term is closely related to the contentment of life. Psychological well-being is the blend of feeling good and working efficiently (Winefield, Gill, Taylor & Pilkington, 2012). Connection of well-being to the environment of the workplace over and done with exciting work and with the presence of a pleasing environment can lead to guaranteeing the well-being of employees. Spirituality in the workplace has been seen as an important aspect to improve the well-being of employees (Bakke, 2005). Therefore, the encouragement of spirituality at work for employee well-being is of the greatest importance not only to workers but also to communities as well as organizations (Krishnakumar & Neck, 2002). Workplace spirituality has been seen as a factor that has a substantial effect on different facets such as augmented level of pleasure, satisfaction, engagement, psychological well-being, and commitment as explicated by Fry (2005); Paloutzian et al. (2003); Reave (2005); and Sharma and Kumra (2020).

Karakas (2010) explicated that spirituality increases the overall well-being related to employees. McKee, Driscoll, Kelloway and Kelley (2011) found a positive relationship between spirituality and employees' psychological, physical as well as spiritual well-being. Subsequently, a similar view is shared by the researcher that spirituality in the workplace plays a role in improving the emotional, social, psychological, and mystical well-being of workers (Pawar, 2016). Henceforth, spiritual practices can be defending against threats a person confronted at the psychological level such as burnout and psychological health (stress and anxiety) (Ho et al., 2016). Currie (2001) accentuates the physical and psychological health of employees. The investigator recommended an environment free from stress as well as physically safe for personnel to safeguard their well-being.

H₁: Workplace spirituality has an impact on psychological well-being.

2.2   Spiritual Intelligence and Psychological Wellbeing

Considering the spiritual intelligence (SI) side, it is the capability to act, be compassionate as well intelligent to sustain both sides such as internal & external independence without bearing in mind any conditions (Nachiappan et al., 2014). Furthermore, SI is considered the ability to ask regarding a meaningful life. It will enhance psychological well-being and help acquire the goals (Sahebalzamani et al., 2013). Researchers like Miller-Perrin & Mancuso (2014) have recognized that spirituality has a huge link with an optimum presence on one side and the well-being of humans on the other side, which is supposed to deliver a suitable purpose for a meaningful life. Zsolnai (2011) has shared that internationally spiritual wisdom has always prearranged prodigious worth towards cleaning the heart which in turn improves the quality of decision-making where understanding or aim could not be a sufficient basis for realization.

As per Nandram (2010), spirituality can respond to numerous dilemmas which are experienced in actual life and business life for entrepreneurs, managers, and leaders. As per Taghizadeh (2015) spirituality has been well-thought-out as a central component of intelligence because it forecasts functioning and adaptation and competencies that allow individuals to solve problems and reach objectives. In addition, spiritual intelligence is recognized as a feasible intelligence and this salutation is being dynamically displayed in the world of business as explained by Sisk (2015).

Accordingly, as per Ronel and Gan (2008), intelligence in the form of a spiritual side supports integrative insight of humans related to completeness and rational out there acquisitiveness, which pushes individuals near a spiritual pathway and consequently aids them to handle unbearable situations. The outcomes presented that there was an important association that exists between spiritual intelligence and psychological well-being with having a drive (purpose) in life (Sahebalzamani et al., 2013). Another study conducted by Khadijeh, Mahbobeh and Ramezan (2017) found a significant association between spiritual intelligence and well-being at the psychological level. Desai (2016) found a positive association among adults between spiritual intelligence and well-being at the psychological level.

H₂: Spiritual intelligence has an impact on psychological well-being.

2.3   Research Framework

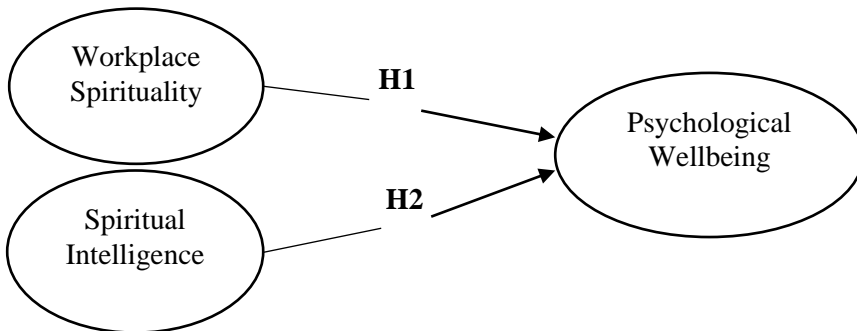A research framework has been developed based on the above literature as shown in Figure 1.

Figure 1: Research Framework

3.   Methodology of the Research

This study was explanatory. While a approach was adopted to see the impact of workplace spirituality & spiritual intelligence on the psychological well-being of employees. The scope of the study was limited to the data collected from the employees working in hospital-based on their availability via using purposive sampling with a sample of 350 employees. To analyze the congregated data SPSS was employed for analysis. The Warwick–Edinburgh Mental Well-being Scale was adopted to measure psychological well-being (Tennant et al., 2007). Petchsawang and Duchon (2009) scale were adopted to measure three dimensions of workplace spirituality: transcendence, mindfulness, and meaningful work. King (2008) Spiritual Intelligence Self–Report Inventory scale was adopted to measure Spiritual intelligence. In our study, there were 238 males and 112 females participated as a representative sample.

4.   Results

4.1   Descriptive and Reliability Statistics

The descriptive statistics of the study variables are presented in Table 1. Workplace spirituality has the lowest mean value of 3.85, Std. Dev =.65, spiritual intelligence has a mean value of 3.96, Std. Dev=.68 whereas psychological well-being has the highest mean value of 4.04, Std. Dev =.73. The value of Cronbach's Alpha for psychological well-being was .972 containing 14 items. For workplace spirituality value of Cronbach's Alpha is .952 comprised of 18 items. The value of Cronbach's Alpha for spiritual intelligence is .984 for 24 items. The acceptable values of alpha, range from 0.70 to 0.95 (DeVellis, 2003).

Table 1 *Descriptive and Reliability Statistics*

Variables	Mean	Std. Deviation	Alpha Value
Workplace Spirituality	3.85	.65	.952
Spiritual Intelligence	3.96	.68	.984
Psychological Wellbeing	4.04	.73	.972

4.2 Correlation Analysis

Moreover, workplace spirituality and psychological well-being have a significant relationship (r=.799, p=.000), whereas a strong correlation exists between spiritual intelligence and psychological well-being (r =.827, p=.000). The correlation values propose that the adopted constructs are unique and discrete (Cohen et al., 2013).

Table 2 *Correlation Analysis*

Variables		1	2	3
Workplace	r value	1.00		
Spirituality (1)	P-Value			
Spiritual	r value	.827**	1.00	
Intelligence (2)	P-Value	.000		
Psychological	r value	.799**	.920**	1.00
Well-being (3)	P-Value	.000		

4.3 Regression Results

The effect of workplace spirituality and spiritual intelligence on psychological well-being was tested through regression analysis. The outcomes of the analysis are presented in Table 3. The outcomes of the analysis show that the value of R is .923 which signifies a high degree of association between variables. The R square value is 85.1% which signifies total variation in psychological; well-being has been explained by workplace spirituality and spiritual intelligence. In addition, workplace spirituality has a positive and statistically significant effect on the psychological well-being of employees (ß =.136, p<.05) whereas, spiritual intelligence has a positive and statistically significant effect on the psychological well-being of employees (ß =.875, p<.05).

Table 3 *Regression Model Summary, Anova, and Coefficient*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923[a]	0.85	0.85	0.28
ANOVA	Sum of Squares	df	F	Sig.
Regression	158.676	2	994.54	.000
Residual	27.681	347		
Total	186.357	349		

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.052	0.094		0.559	0.577
Workplace Spirituality	0.136	0.041	0.121	3.296	0.001
Spiritual Intelligence	0.875	0.039	0.82	22.277	0

a. Dependent Variable: Psychological Wellbeing

Consequently, the regression equation for our study is as follows:
Psychological Wellbeing = 0.052 + 0.136 (Workplace Spirituality) + 0.875 (Spiritual Intelligence)
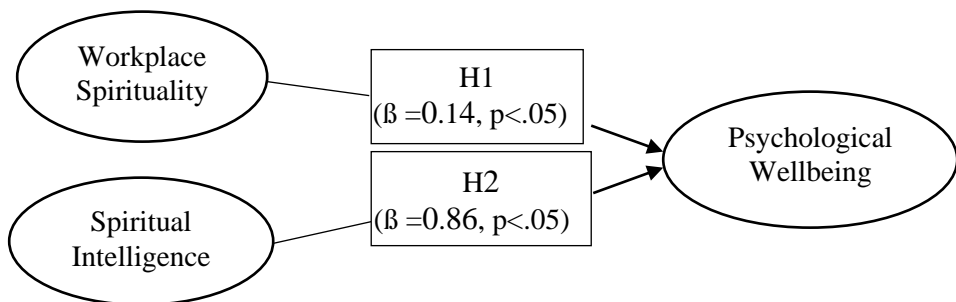
Figure 2   Results of the Regression Analysis

5.   Discussion

The first hypothesis regarding workplace spirituality having an impact on psychological well-being was accepted as the p-value is less than 0.05. The outcomes of the study are per the study undertaken by Mckee et al., (2011) found a positive association of some workplace spirituality dimensions with employees' psychological well-being whereas the same view is shared by Pawar (2016). Therefore, spiritual practices can help defend against psychological threats such as burnout and psychological health (Ho et al., 2016).

The second hypothesis regarding the impact of spiritual intelligence on psychological well-being was accepted as a p-value less than 0.05. The result is in line with Sahebalzamani et al., (2013) study which showed a significant association between spiritual intelligence with psychological well-being and having a purpose in life. Khadijeh et al., (2017) also found a significant association between spiritual intelligence and psychological well-being. Desai (2016) found a positive association among adults concerning spiritual intelligence and its link with psychological well-being.

6. Conclusion, Limitations, and Implications

This study has examined the impact of workplace spirituality, and spiritual intelligence on the psychological well-being of employees working in a hospital. The results indicate a positive significant influence of workplace spirituality and spiritual intelligence on psychological well-being. In addition, organizations should focus on improving spiritual intelligence and spirituality at work to manage the psychological well-being of their employees because it ultimately affects the organization's performance. Therefore, to enhance the psychological well-being of healthcare professionals' managers must focus on providing training to improve the workplace spirituality and spiritual intelligence to deal with the current confronted challenge that is COVID-19 and to prepare them for the forthcoming challenges. Future studies may examine the moderating influence of spiritual intelligence on workplace spirituality and the psychological well-being of employee's link. Future researchers may examine other dimensions of well-being with workplace spirituality and spiritual intelligence.

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GREEN BOND VOLATILITY AND SPILLOVER TO THE EQUITY MARKET OF SOUTH ASIA

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Abstract. *This study aims at finding out the volatility and spillover of green bonds over equity markets of South Asia*

including three counties; China, India and Pakistan. For this purpose, sample dataset of daily closing price of stock returns of equity markets was collected from the stock exchange institutes of these three countries from time period of 2011 to 2019. Dataset of green bond market was obtained from official site of S&P global green bond index. Unit root test, LM test, Durbin Watson test, ARCH test and GJR-GARCH test was used as techniques for proving the hypothesis of this study. Findings show that green bond market is positively linked with the equity markets of these three countries. Moreover, no volatility exists in the green bond returns but there is an existence of volatility in green bond markets. ARCH effect exists in green bond market return series so spillover does not exist. As conclusion, both green bond market and equity market are not completely independent and there is an existence of informational spillover between these markets which can be helpful for investors against risk diversification. This study is also fruitful for policy makers, researchers and portfolio managers.

Introduction

Environment change plays a significant role in the company's sustainability and it's a biggest challenge for the world. In the last decades, the new of financial derivate has been created, and known as "Green Finance", where the proceeds are provides benefits to climate and stop the changing in the environmental stated by Nylen (2021). Green bond is originated in developed countries and plays a significant role in developing bond market. The purpose of the green bond proceed is to making the financing environmentally friendly projects. Green bond is the

type of bonds that uplift sustainability and to help climate-related or different kinds of climate projects. Companies are progressively deposed towards to structuring a "a green image" which gives the real value to the firm. Green bonds proceed will be used to finance a green project which are lined up with the four segments of the green bond principal (GBP). It includes the utilize of proceeds, project evaluation and selection process, the proceed of management and last one is reporting. Green bond principal plays an important role in the growing of green bond market.

Green bond is used for the allocation of fund and it's a positive impact on environment. In 2007, European investment bank issued the first green bond and then first green bond market is created. The next year World Bank adopted it. So the following 12 years, the green bond market developed fastly. In 2019, the total amount of green bond insurance is 257.7 billion US dollar and 51% is the market yearly growth. The market is dominated by the US and China but the expansion in 2019 was mainly driven by the European markets elaborated by Karesjoki (2020). In 2013, the first corporate bond was issued by electricite de France, and then the developing of corporate green bond market started. These are similar to conventional bonds, but the green bonds proceeds is uses for putting resources into projects that fulfil certain environmentally targets, that is beneficial for environment such as renewable energy, environmental friendly building or feasible transports. According to the climate bond initiative database, 95% proceeds of green bond devoted to assets or project or undertaking lined up with the climate bonds taxonomy showed by Nylen (2021). The overall features of bonds and research interest associated with bond market is its link with the stock markets are often analyzed by green bonds. The system by which volatility is moved between the equity and bond market plays a crucial role in risk management and portfolio composition. After examine the relationship between the bond and stock markets, it helps investors to sort out their portfolio tested by Park et al. (2020). It is well-understood thing that every investor comes into the business world to earn profit and it is the primary source of business as well.

Over the past few years, investors are more concerned about the environmental impacts of business. In the past few years, some studies are conducted on green finance to measure the volatility modeling of green bonds with the purpose to find out the volatility spillover between the green bond market and conventional bond market. The volatility modeling of green bond with overall conventional bond market provides the information that how conventional bond market will take part to the volatility of green bond market. Moreover, the results of study provide information that how much information spillover exists between the green bond market and the conventional bond market. The information spillover leads towards the cause-and-effect relationship between financial markets. The cause-and-effect relationship between the financial markets indicate that how efficiently one market responds to the information spillover. If one financial market responds to the knowledge spillover of the other financial market, then it indicates the presence of

co-movement within the data. So, co-movement between the financial markets that how these financial moves together, and investors will use these co-movement results to predict future returns based on the past prices to diversify their portfolio and maximize their returns (Ejaz, 2021).

The volatility of returns is an essential risk metric used in the financial decision making. Volatility and its dynamics are important in various finance applications such as asset allocation, risk management and derivation pricing. Karesjoki (2020) showed that the volatility behavior and dynamics of the green bond market is essential for participants in new market. In this research we first examine the market for green bond, then we analyze the volatility dynamics and spillover between the stock market and green bond markets in South Asian countries. Most the studies have conducted with the intention of the effect of interest rates on the stock prices of South Asian countries that it has a positive or negative effect on the equity market, however evidences were also mixed. Some studies identify the channels of transmission and some have tried to link them to financial and commercial channels. Further, in many studies the evidence of the impact of global interest rates on equity market was also mixed. Some researchers confirmed the positive impact as well as negative impact on the equity market.

Moreover, the green bond is a new financial instrument, due to the importance of climate it is the need of finance literature to explore the volatility dynamics of green bond because green bond is the significant innovation in the field of finance. Pham (2016) conducts the first study in order to understand the risk and return behavior of green bond market volatility and in this study volatility of green bond has been analyzed with the overall conventional bond market. A few studies have been conducted to find out the volatility modeling of the green bond that creates a gap in the body of knowledge. Studies specific to the South Asian countries are quite less researched, which are the big gap and a great motivation of the study that we are trying to examine the through advanced methodology. In this study we examine the price spillover between green bond market and equity market, and also find out the dynamics of green bond market with equity market in South Asian countries. Therefore, to fill the gap of finance literature the purpose of this research is to find out the volatility modeling and dependence structure of global green bond with equity market.

The green bond market with regards of volatility is neither separate from the equity markets and not from the other bond markets. So that's why the green bond is utilized by the financers to make extra money in terms of profit on their assets beside with the growth of the weather volatile economy explored by Huynh et al. (2020). Though this emerging market is an opportunity for the financiers for their investments that are valuable for ecologically and also for economy. According to the World Bank that green bond is an economical tool which is used for increase

wealth in terms of environmental related ventures insisted by Pham (2016). The answer to the other market like bond market, equity market is different as related to the green bond market because it's a complex in many aspects of macroeconomics factors like alteration in the returns, volatility and uncertainty in the financial strategy and actions in the daily routine pointed by Broadstock and Cheng (2019). Among the green bond and equity markets it points out the learning of volatility modeling, risk assessment and co-movement. Green bond is not as much different from the other conventional bonds but the major purpose of the green bond is to give advantages to the environmental project.

This research aims to analyze the effect of green bond market on the equity markets of South Asia. This study identifies that if there is any spillover, volatility or price fluctuation in one market (Green bond market), can either affect the other market (Equity market). This study will also examine that either there is positive or negative correlation. Green bond market is the new and flourished market, this current study will also check whether it is good to invest in green bond market or not. The current research is conducted on day-to-day closing values of the S&P green bond index and the stock market data. The dealing size in the fixed income market is smaller than the stock market that's why the daily data have to be enough. This study observes spillover and volatility for the long period of time. In this study we will study the co-movement among the green bond market and equity market. Between green bond market and the equity market there is a feebly co-movement. In regards of green bond market, the advantageous modification for the financers in the equity market. If there is high price spillover in equity market than it has an insignificant impact on the green bond prices analyzed by Reboredo & Ugolini (2020). If there is volatility in one market because of the volatility in another markets than the abnormality of volatility spillover occurs which studied by Gulfraz (2021). The main purpose of this study is to analyze the volatility in the green bond and spillovers to the equity markets of the South Asia.

Research Questions

- − Does spillover exist from green bond market to the Pakistani equity market?
- − Does spillover exist from green bond market to the Chinese equity market?
- − Does spillover exist from green bond market to the India equity market?

Significance of the Study

This study examined the green bond usefulness to fund climate change costs and green bond market volatility. Global annual issuance of green bonds has risen each year since 2017-2019 record of $266.1 bn. Various multi-national institutions and record of sixty-seven nations have originated green bonds (Climate Bond Initiative, 2020). There are positive effects of issuing green corporate bond on environmental and financial performance. It increases long-term green investment as well as green innovations. Different studies showed that prices of green bonds moved independently with stock market and changed

in energy prices. MSCI green bond index of global Barclays states that treasury bond market is integrated with green bond market. But further information that owing to price changes in treasury market, sizeable spillover impacts are received by green bond market. So, it transmit negligible reverse effects exhibited by Reboredo and Ugolini (2019). It is also represented by MSCI world index that stock market is weakly connected with green bond market and green bond market is independent of any price change in energy market and transmits minor price spillover effects.

Green bonds act like a specific asset class which is connected with currency exchange rates and treasury bonds but in case of other kind of assets, green bonds also offers some diversification opportunities. So, through this investors interest could also rise in green bonds. It will give the opportunity to issuers to extend their long term green investors base. It also favors more flows to projects of low-carbon. The ability of green bonds to finance low-carbon investments as an alternative source has been attracting the interest of investors across Asia and all over the world stated by Azhgaliyeva et al. (2020). Green bonds explosively global growth has also attracted the attention scholars. Several scholars have started studying the standards and definitions, pricing & issuance of green bonds. They have also begun to study risks & returns associated with green bonds. However green bond as an innovational finance tool is gaining popularity among many countries. Another reason of their popularity is that they are issued only for green energy projects and projects of environmental energy to reduce the effects of climate change & pollution control coined by Zhou & Cui (2019). Green bond is fixed income product. It offers opportunity to investors to take part in financing green projects. Green bonds help countries to adapt the plans of climate change. Therefore example of an innovative fixed income product is green bond that could raise specific amount of capital. This specific amount of capital is used in financing the fight against change in climate. Due to standard financial characteristics of green bonds, they have become very effective. Green bonds dedications to environmental issues make them desirable for various investors which have specific environmental strategies and institutional investors which are basically interested for climate oriented investments.

Green Bonds as an emerging concern over environmental protection catches the eyes of various institutions and investors. Joint dependent dynamics of green bonds and explored volatility help to understand the risk nature of green bonds and their effect on the financial environment. It fulfills the environmental concern along with wealth maximization objective of individuals. Therefore, the conclusion of the study enhances the investor's knowledge regarding how green bonds integrate with other major asset classes. Green bonds hedging properties along with aforementioned financial instruments will assist and motivate investors for their portfolio diversification and restructuring with aiming of

returns maximization on the given required risk of a portfolio. This is because green bond index perform outstandingly to hedge the market volatility even in the crisis period and is the most effective hedge for carbon futures showed by Ejaz (2021). If we understand the interdependence of green bond market performance and investor attention, it is found useful for policy in promoting environment friendly finance proved by Pham and Huynh (2020). Green bonds are considered to be sustainable and stable because they are used to fund those social projects which are long term. Example of long term projects is wind and solar energy facilities and they requires large amount of funding. So raising funds through large bond market for long period of time might be an appropriate choice. Stable investment for investor is considered to be green bonds that give long term income. Now green bonds are issuing for social purposes that is why political and social demand for green bonds is increasing. Thus, without burdening the portfolio of investors Green bond allows them to execute their green initiatives. Green bonds are easy to incorporate in to the portfolios because method of issuing green bonds is similar to the method of issuing traditional green bonds. On the other hand due to variable interest payments of traditional eco-friendly bonds, they are difficult to incorporate in to the portfolio (Park et al., 2020).

Green bond price is alike conventional bond when issuer and duration of the bond is same. Investors do not take lower returns of green bonds. Nowadays even investors get low return by integrating green bonds into the portfolio; they are willing to diversify their investments by having green bonds in portfolios. Environmental risk is decreased by issuing and investing in green bond which is quite beneficial. The cost of obtaining attention and resources for environmental degradation is expected to be reduced by green bonds. It is stated by U.S municipal bond market that Green bonds are traded at higher yield but at low price. They found that conventional bonds are given preference over green bonds summed up by Nylen (2021). Apart from investment and investors, this study opens a new direction for policymakers to devising strategies to develop the climate-resilient economy with mutual benefits (Ejaz, 2021).

2. Literature Review

With the passage of time the financers are initiating to diversify their portfolios. The financers begin to start the diversification of global investments in 1960s and 1970s. According to Gilmore and McManus (2002), initially the US financers earned profit through diversification. Phylaktis and Ravazzolo (2005) also explored the relationship of capital markets in growing economies through inference of the global diversification and foreign portfolio diversification. Liu (2016) identified that increase in the portfolio diversification of corporate bond market, and he also explored that this part of financial portfolio diversification was unnoticed. This study also revealed that the resulted portfolio reduced the straggle variance and increased the risk in the portfolio for

US financers. Additional this study added that regardless of GFC 2008 bond market enhanced the enough returns and work well than the financial market. Guesmi et al. (2019) identified hedging strategies depends on the commodities prices, upcoming financial markets, crypto currencies with less portfolio risk. In this study they used the GARCH models and recommends that DCC-GJR-GARCH model is best model for studying volatility. This study also emphasized that the role crypto currency in the risk profile of portfolio is too less. Result of the study that the use of upcoming financial markets, crypto currencies and prices of commodities build diversified portfolio which decrease the whole portfolio risk than the portfolio of only commodities and equities.

Jin et al. (2020) researched on the linkage among the carbon market with green bond, VIX, commodity and energy index. In this used various hedging ratio methods like DCC-APGARCH, DCC-TGARCH and DCC-GJR GARCH. The outcomes of the study are that throughout the volatile phase the dynamic hedging ratios worked well as compared to the OLS and these procedures is record the volatility spillover and also the dynamic correlation among the markets. The empirical results of the study are that the results of the green bond are more refined from hedging ratio with the carbon market as compared to other markets. Also declared that the green bond have a good hedging choice with carbon in futures. Saeed et al. (2020) claimed that the absence of indication related to the hedging skills of green bonds. But the linkage between the clean energy and black energy are time consuming. In this study they used the GARCH model to discover the dynamic conditional correlation and they used hedging ratio. The outcomes show that for the portfolio diversification they have to use the dynamic hedging ratios. The study also shows that the clean energy tools work well as compared to the green bond in portfolio optimization.

Market Efficiency Theory

Fama (1970) suggested that the basic function of the capital market is the allocation of possession to the whole economy capital stock market. The best market is those markets where the charges are shown all the info existing in the market. In the efficient market the firms have ranges of demands in the manufacturing investments and the financers must be sure that the charges must show the all data regarding to the product and which is not the overrated or underrated stocks in the market so that's why this market is known as the efficient market. Fama (1970) defined the purpose of the efficiency of this market. In this market there are three conditions. First one is the weak condition in which there is only reach to those materials which are related to the old values and earnings. The second one is the semi strong, in which the data is regarding to the community information and the final one is the strong in which the data is related to the community and secretive. All of the three conditions define that

the how the data obtainable to financers. The strong condition covers the data regarding to the weak and also semi strong condition just like the old and ancient information, community data and the secretive data. At that time only the strong type have the authority to right of the personal secretive data related to the business and might be this information is related to the valuing of shares.

Empirical Review

According to Pham and Huynh (2020) studied that the connection among investors and their response towards the green bond market and also the performance of the green bond market. They used a daily data of the green bond index and realize that the investors should have to invest in the green market and found that this link is being fluctuating with the passage of time. The outcomes of the study are that the investors have to invest money in this new advanced and rapidly developing green bond market. The results also highlight that the proper and suitable info leads to the maintainable investments. This study is carried on by the changed indices of the green bond market like the S&P green bond market and the S&P green bond select index. In this the S&P is shows the most common and the comprehensive green bond market while the second one shows the special and selected green bond market. In this the stock market indexes of the China are exemplified by the conventional bonds of the China and the stock market indexes of the US are exemplified by the conventional bonds of the US. In this the time is taken of the 10 years from 2010 to 2019. The outcomes of this study shows that the there is a high volatility seen in the green bond market as related to the conventional bond markets. In the first years there is also some leverage effects seen in the green bond market. The volatility spillover also exists between the both green market of the China and the US and there is also the co movement occurs among these two markets. Volatility is much tenacious in the comprehensive as compared to the selected green bond market. The outcome of the study emphasizes that due to the volatility the green bond market is much self-determining market as compared to the conventional bond markets.

A study by Diebold and Yilmaz (2008) investigated the relationship among asset return volatility and the macro-economics. They work on the largest data of the 40 countries from 1960 to onwards. The results are that there is a solid relationship in the volatility in the stock market and the macro-economic essentials. Hyun et al. (2020) are firstly not discovered any major indication of the revenue of the green bonds. When these bonds are licensed by another party then they discover the revenue premium of the green bonds. They signify that if we produce the worldwide the same and general green bonds then it will increase the value of the green bonds and also enhance the growth of these green bond markets. The outcomes of the study are that we found the much greater returns of the stock market for the issuance of general green bond market. Banga (2019) studied the adjustment of green bond market for decrease the risk in the

developing countries. The outcomes are that the increase in the green bond market in the developing and the developed countries are because of the investors because they invest money in this. Moreover, the green bond market is growing and emerging market in the developing nations and the obstacles in the advancement in the green bond market are absence of the suitable management for green bond market in the developing nations are problem of least size and the great contract prices. For the solution of this problem the study recommends effectual usage of domestic banks as works for management of native green bond market. For this purpose the local government also plays major play in the issuance of green bond.

Reboredo and Ugolini (2020) investigated in study that there is a price relationship among the green bond market and financial market. They use a VAR model in their study and show the straight and unplanned transfer of financial transmissions through the market. The result of the research tells that the green bond market is strictly linked with the fixed market. Due to the price spillovers from the fixed income markets and then they transfer the opposite effects. On the other hand it also suggests that the green bond market have feebly relationship with the stock and corporate bond markets. Tang and Zhang (2020) also studied about the green bond market from the year 2008 to 2017 and suggest that the stock market reacts positively towards the green bond market. This study also express that the liquidity in the stock market get developed after the green bond market and it also enhance the organizational ownership. But this study does not discover any indication of a constantly significant premium that means that the revenues from the stock market are not operate by the less value of the stock. Zerbib (2017) studied an identical ways relating the green bond market with the alike conventional bond market with the same bond features. On this the reduction rate of 0.08% on the green bond market. He discovers the lesser markup cost on the Europe at only the 0.02%. The characteristics of the study are the negative premium to the extra response and the payments of these green bonds in the market. He also discovers that in the response of the equity markets to the green bond market the geographical dissimilarities also matters. In the market of Europe there is a fewer positive average return in the stock market as compared to the worldwide average. According to Nylen (2021) suggestion that how the green bond market affects the prices of business's stock prices. The main purpose of the study that in the European market the stock market prices responds positively to the green bond market.

Alonso-Conde and Rojo-Suárez (2020) studied that due to the volatility spillover in the equity and green bond market it approves that there is uneven or unbalance volatility in the green bond market. As compared to the equity market the volatility of the green bond market is liable to the affirmative yield. Hou et al. (2019) investigated the study of volatility spillover of Chinese fuel, oil and

stock market. They apply the time variation DCC GARCH model. The research observed that different pattern exits in volatility spillover due to some structural breaks and this will be more useful for risk management. Christiansen (2010) analyzed the volatility spillover by used bivariate GARCH model. This spillover effect checks in the England and United States. This showed that each market's unpredictability is more affected by its own instability than by that of the other market. These past investigations showed that the questionable outcomes relying upon the area, sample periods and financial items stated by Park et al. (2020). According to Nguyen (2020) since the dispatch of green bond its market has developed with tremendous yearly rate which implies that it is significantly more imperative to comprehend the instruments of the market. Since that few earlier studies have focused on the volatility and liquidity risk of the green bond markets. For instance, Pham (2016) was one of the principal studies to analyze the volatility behavior happened on the green bond market. This examination is utilizing information from 2010 to 2015 from S&P green bond file between and tracked down some fascinating outcomes. Utilizing the multivariate GARCH model, study finds that the green bond market has huge volatility clustering as contrasted with ordinary bonds. In simple word, green bonds are not more volatile than ordinary bonds but if market sees high volatility of the green bond cost in the past, it is probably going to proceed soon. This finding gives some data of the green bond advertises and is essential to consider while examining the green security markets and their conduct whether members are investors or issuers.

Yang and Zhou (2017) examined the volatility spillover between international markets and they used the VAR model in different international markets instead of imposing a previous limitations. Flammer (2020) investigated the issuance of green corporate bond effect on financial markets. It results shows that the issuance of green corporate bond has positive effect on environmental and financial performance. It also rises the green long term investments and innovation. Past research also reflects that volatility dynamics affect the current conditional variance and covariance. Results showed that previous volatility effect the current variance. Empirical results proposed that those occasions that influence the volatility structure of financial instruments had significant impact on investors' portfolios. Reboredo and Ugolini (2020) added new evidence in the green bond market. They find the receives sizeable spillover impacts from value changes in the treasury market and sends negligible opposite effects. So find that the green bond market is interconnected to the money market of USD. At the point when changes in the USD transmitting impressive spillover to the green bond market, and changes in the green bond market passing on negligible spillover to the USD exchange rate. We additionally affirm that there is two-path spillover between the corporate debt market and the green bond market. According to the MSCI World Index the green bond market is weakly associated with the equity market. Overall, outcomes shows that the green bond market

essential for the growth of the treasury market. It is affected by the development of the USD exchange rate and shows low mix with the high return corporate bond and energy markets.

Nazlioglu et al. (2015) studied the volatility transmission between the Islamic and conventional equity markets. It is based on fact that Islamic equity market reached the market capitalization of 1.6 trillion dollars in 2013. Study explored the pre and post GFC 2008 volatility spill over dynamic between the, Asian, European and US conventional and Islamic equity markets along with the US Monetary policy, oil prices, VIX and US economic uncertainty index by using GARCH. Empirical results of study showed a transformation of risk between different markets. Volatility structure found short-run in first phase and long run in second phase and similar transmission pattern of volatility has been observed. Further study found Islamic equity market was more affected from risk factor (VIX) then the oil prices and US economic policy uncertainty index. According to Zhou and Cui (2019), the Green bonds are a financial instrument that has been promoted in the worldwide green finance field. The issuance of green bonds has seen explosive growth in the worldwide in the year 2013. China's green bond market has gained incredible development in the worldwide. They used Chinese listed companies as a research object and check the impact of green bond issuance on companies, including the effect of the declaration of green bond issuance on organizations, stock prices, financial performance and corporate social responsibility (CSR).These results indicate that declarations of green bonds issuance have a positive effect not just on organization's stock costs, organization's profitability, and operational performance, but also on innovation capacity, and can improve organization CSR's. Overall, outcomes show that the issuance of green bonds positive effects on organizations, promotes CSR and value creation, and helps to attract investors.

Park et al. (2020) examined the green bond market properties to check the existence of asymmetric volatility in bond green bonds. They used S&P 500 equity market index and S&P green bond index to explore the asymmetric volatility and find out the relationship of green bond and equity market. Results shows that the volatility exists in green bonds and react like conventional equity market but in less intensity. Both markets have some conditional variance spillover effect with greater impact of positive news on returns. Green bond market growing fastly, financial analyses conducted on green market in previous researches. Green bond volatility analyzed by Pham (2016), in which with the help of using GARCH model and S&P used by traditional bond markets. GARCH model shows that in the traditional bond market investors, green bonds don't gave the diversification effects and Reboredo and Ugolini (2020) also uses this model. The relation between green bonds markets and other financial instruments is crucial. It is depend on green bonds relationship with the stock and

energy commodity markets. The relation between Stock and bond markets has been considered. Yet, no relationship happens to depict the association between the two business sectors. The relationship between British short and long-term bonds and stocks shows that the profits in the two business sectors are adversely corresponded and it is analyzed by Steeley (2006). In descending order of countries issuing green bonds is USA, China, France, Germany, Spain, Canada, India, and Brazil. If we talk about development banks EIB, World Bank, and K&W are on the top three positions of green bond issuer. To meet the targets of financing the climate plans, the green bond issuance is increasing in banks and corporate sectors. It is the objective of climate bonds to increase green financing upto $ 1trillion.

Jebran et al. 2017 also investigated the volatility and co-movement between Islamic and conventional equity market. GARCH and EGARCH model were applied to investigate the volatility spillover between Islamic and conventional equity market. Study found the volatility spillover which was bidirectional between Islamic equity market and conventional equity market. Furthermore study found that there is little opportunity for domestic investors to diversify their portfolio by adding Islamic equity. Naifar (2018) explored the impact of volatility on sukuk bond. DCC GARCH model was applied in study to explore correlation between change in commodity prices and sukuk bond. Negative correlation was shown between sukuk bond returns and commodity prices in result. The study also investigated that for ideal allocation of portfolio the understanding of volatility dynamics correlation is very important. Akkoc and Civcir (2019) investigated the relation between prices of oil, gold and Turkish stock index. They explored impact of change in prices of commodities on stock market return of turkey of developing economies. To investigate the dynamic spillover, SVAR DCC GARCH model was applied utilizing oil and gold international prices and equity index of Turkey (BIST). To describe SVAR model boot strap causality test was applied which is used to report nonstandard error distribution. The results described time varying co relation spillover from oil and gold to stock index of Turkey (BIST). Results showed that due to high volatility gold cannot be used as save heaven in portfolio and it has great impact on Turkish stock index than oil. Nylen (2021) investigated that green bond market is the small portion of bond market. It was also explored that stock index has both positive and negative impact on green bonds. The basic purpose of study was to examine the effect of green bond announcement toward stock prices of companies. OLS regression model was applied to measure the variables. Green bond which are issued by nonfinancial firms from 2013 to 2020 in Europe were collected for research purpose. The results of the study showed that there is negative announcement impact of green bonds. The result obtained from OLS regression showed positive results for S&P credit rating of company, callable green bonds and green bond issued in Europe.

Hypothesis Statements

H$_1$: There is a spillover between green bond market and Chinese financial market.

H$_2$: There is a spillover between green bond market and Pakistan financial market.

H$_3$: There is a spillover between green bond market and Indian financial market.

Methodology

Research Design

Research design basically explains about the structure of the study. Research design examines the study purpose and also explains about the sources of data. The research design entails the procedure used for the purpose of collecting, measuring and the analysis of the data. This research study is quantitative in nature and has used secondary data (Time series) for the purpose of analyzing the research question proposed in it. E views 8 software is used for the analysis of data.

Type of investigation

This research study attempted to investigate the spillover among cross markets that includes green bond market and financial markets. The study is uni-directional that is, it shall attempt to find out the spillover from the green bond market to financial market. The nature of the study is explanatory.

Data

The underlying study has used time series data and daily average closing price of three financial markets (Pakistan, India and China). The data for these three financial markets was obtained from PSX for Pakistan, BSX for India, and Shanghai Stock Exchange for China. Also, the daily average closing prices of green bond markets have been used for the study. Data of green bond market was obtained from www.spglobal.com. The duration of the data has been December 30, 2011 to December 30th 2019.

Variables of Study

Stock returns

Daily closing prices were obtained for all the four markets including green bond market and three financial markets of Pakistan, India and China. Further, the returns were calculated from these closing prices. The formula for the return calculation is as follow:

$$= Return \ c \ Return(-1) \tag{1}$$

Model Specification & Estimation

The study aims to investigate the spillover from the green bond market to the financial markets selected for the purpose of the study. For this purpose, GJR Garch methodology was used.

Measurement Of Daily Market Returns (Mean Equation)

The mean equation used for the purpose of the study is as follows:

$$R_t = \mu + \lambda_i R_t - 1 + \varepsilon t \tag{2}$$

Modelling GJR Garch (Variance Equation)

GJR GARCH model has been proposed by Glosten-Jagannathan-Runkle is often by numerous studies to investigate the spillover among the markets. The model assumes to measure the conditional heteroscedasticity through the following equation by considering a return time series:

$$r_t = \mu + \varepsilon_t \tag{3}$$

Where μ is the expected return and ε_t is a zero-mean white noise. Despite of being serially uncorrelated, the series ε_t does not need to be serially independent. For instance, it can present conditional heteroskedasticity. The Glosten-Jagannathan-Runkle GARCH (GJR-GARCH) model assumes a specific parametric form for this conditional heteroskedasticity. More specifically, we say that $\varepsilon_t = \sigma_t Z_t$, where Z_t is standard gaussian and:

$$\sigma_t^2 = \omega + (\alpha + \gamma_{t-1}) \varepsilon_{t-1}^2 + \beta \sigma_{t-1}^2 \tag{4}$$

Data Analysis

For the purpose of data analysis EViews 8 has been used. The following procedure has been adopted to test the above-described model on the data collected for the purpose of this study.

Unit Root Test

In a time, series data, the component root experiment is being used to examine the stationarity. Unless the data is horizontal the mean as well as discrepancy are continuous.

LM Test

In such a regression model, the Breusch–Godfrey habitual regression LM exam is a measure of autocorrelation throughout the mistakes. It renders use of residuals from either the system becoming regarded in a logistic regression, but from those was deduced an exam stat. There's no serial connection of every attempt up in p.

ARCH (1,0)

Return equation was estimated through OLS. The next step was to check the ARCH Effect within the series selected for the purpose of the study. Each series was tested for ARCH test. The ARCH Test was executed through heteroscedasticity test. In order to check the volatility spillover, volatility spillover series shall be created.

GJR-GARCH (1,1)

Finally, GJR-GARCH method was applied to find out the spillover from the green bond market to the financial markets.

Results & Discussion

Unit Root Test

Table 1: *Unit Root Test (China)*

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-36.738	0.000

Table 2: *Unit Root Test (Green Bonds)*

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-40.809	0.000

Table 3: *Unit Root Test (India)*

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-34.884	0.000

Table 4: *Unit Root Test (Pakistan)*

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-35.744	0.000

First of all, we have to see null hypothesis of unit root test which is there is a unit rule it means that the time series is non-stationarity, so if the p-value is less than 0.05, we will reject this null hypothesis, so this is the result of unit root test and we know that the rule of thumb is that if the p-value is less than 0.05, we reject null hypothesis and null hypothesis says that the time series is non-stationarity. It means that there is a trend after seeing the p-values, we can conclude that the data series of green bond markets and financial markets is stationary at level.

Autocorrelation

Table 5: *Autocorrelation*

Serial Name	Durbin Watson Stats
Green Bonds	1.9984
Pakistan	1.9974
India	1.9996
China	2.0016

Heteroscedasticity Test (ARCH Test)

Table 6: *ARCH Test for Green Bonds Market*

F-statistic	6.6163	Prob. F (1,1489)	0.0102
Obs*R-squared	6.5958	Prob. Chi-Square (1)	0.0102

As the p-value is less than 0.05, it suggests that the ARCH effect exists in the green bond market return series. Further, it shows that further analysis can be executed in order to check spillover.

GARCH Test (GJR Test)

Table 7: *Spillover green bonds to Pakistan*

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-4.69E-05	0.0003	-0.1391	0.8894
GREEN_BONDS(-1)	-0.0553	0.0803	-0.6897	0.4904
Variance Equation				
C	1.89E-05	1.21E-05	1.5658	0.1174
RESID(-1)^2	0.1500	0.0941	1.5948	0.1107
GARCH(-1)	0.6000	0.2337	2.5673	0.0103
VSOP	0.0000	6.33E-06	0.0000	1.0000

The mean equation of table 7 shows that no volatility exists in the green bond returns whereas the variance equation that explains the error term shows that volatility exist as p-value is less than 0.05, the beta coefficient of GARCH (-1) shows that 60% volatility exists in the green bond market. However, spillover does not exist because the p-value is greater than 0.05.

Table 8: Spillover green bonds to India

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-4.69E-05	0.0003	-0.1391	0.8894
GREEN_BONDS(-1)	-0.0553	0.0802	-0.6897	0.4904
Variance Equation				
C	1.89E-05	1.21E-05	1.5677	0.1170
RESID(-1)^2	0.1500	0.0942	1.5931	0.1111
GARCH(-1)	0.6000	0.2336	2.5681	0.0102
VSOI	0.0000	6.70E-06	0.0000	1.0000

The mean equation of table 8 shows that no volatility exists in the green bond returns whereas the variance equation that explains the error term shows that volatility exist as p-value is less than 0.05, the beta coefficient of GARCH (-1) shows that 60% volatility exists in the green bond market. However, spillover does not exist because the p-value is greater than 0.05.

Table 9: *Spillover Green Bonds to China*

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-4.69E-05	0.0003	-0.1391	0.8894
GREEN_BONDS(-1)	-0.0553	0.0802	-0.6897	0.4904
Variance Equation				
C	1.89E-05	1.21E-05	1.5677	0.1170
RESID(-1)^2	0.1500	0.0942	1.5931	0.1111
GARCH(-1)	0.6000	0.2336	2.5681	0.0102
VSOC	0.0000	6.70E-06	0.0000	1.0000

The mean equation of table 9 shows that no volatility exists in the green bond returns whereas the variance equation that explains the error term shows that volatility exist as p-value is less than 0.05, the beta coefficient of GARCH (-1) shows that 60% volatility exists in the green bond market. However, spillover does not exist because the p-value is greater than 0.05.

Conclusions & Limitations

The main purpose of this research is to find the impact of green bond market on the stock market of South Asian countries especially Pakistan, India, and China. This research also provides insight into the volatility of green bond market prices on the stock market of these countries. The relation among green bond market and stock markets of these countries are also examined during this research. We also investigate the spillover among cross markets that include green bond market and financial markets in this research. This research study is quantitative in nature and has used secondary data (time-series) and the daily average closing price of three financial markets (Pakistan, India, and China). The data for these three financial markets were obtained from PSX for Pakistan, BSX for India, and Shanghai Stock Exchange for China) For the purpose of data analysis, EViews 8 has been used. In this research, we used methodologies such as Unit Root Test, LM Test, ARCH (1, 0), GARCH (1, 1), and GJR-GARCH (1, 1) to find out the spillover in stock markets of Pakistan, India, and China. We concluded that the ARCH effect exists in the green market return series.

For green bond market of Pakistan, no volatility exists in the green bond returns whereas the variance equation that explains the error term shows that volatility exists as p-value is less than 0.05, the beta coefficient of GARCH (-1) shows that 60% volatility exists in the green bond market. However, spillover does not exist

because the p-value is greater than 0.05. In China, no volatility exists in the green bond returns whereas the variance equation that explains the error term shows that volatility exists as p-value is less than 0.05, the beta coefficient of GARCH (-1) shows that 60% volatility exists in the green bond market. However, spillover does not exist because the p-value is greater than 0.05. In India spillover does not exist because the p-value is greater than 0.05.

After concluding all these findings, study recommends to all the market players including policymakers, investors, and portfolio managers to keep a sharp eye on the arising information in different stock markets. Some most important recommendations of this study are as given below. The overall results of this research strongly recommend to the markets players including traders, investors, portfolio managers as well as research analysts to have the strongest hold on the fluctuation of green bond market as it is positively linked with Pakistan Stock Exchange, BSX for India, and Shanghai Stock Exchange for China.

Green bond and equity markets are not completely independent and information spillover exists between markets that have implications for risk diversification. Researcher and investor can use this research study as a pre-work study before working on the spillover volatility of any country. Investors of stock markets can use our findings as a role model in the process of investments as well as risk management as the volatilities are found more influenced than returns. For policymakers and investors, it is very necessary to keep cunning eyes on market performance to avoid risk. There are time-varying conditional correlations in the stock market which indicates decision-makers should consider the dynamic nature of correlation for portfolio restructuring and optimal hedging. This research study is limited only to the Pakistan, India, and China stock exchange markets.

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