

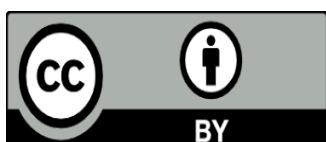
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**Sarhad Journal of Management Sciences**  
**Vol. 10 Issue 2, December 2024**

Sarhad Journal of Management Sciences (SJMS) is the oldest academic and research journal of Sarhad University of Science & 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.

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The Journal has the following objectives:

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- ▶ 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.

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## ADOPTING SMART QUALITY PRACTICES WITHIN THE FRAMEWORK OF DIGITAL BUSINESS TRANSFORMATION: A CASE STUDY OF AL-RASHEED BANK IN MOSUL

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**Abstract.** *The research is centered on illuminating intelligent quality through the application of artificial intelligence tools. These encompass intelligent automation, smart sensing, comprehensive data analysis, intelligent quality monitoring, information security, and continuous employee training. The aim is to transition towards digital banking operations at Al-Rasheed Bank. The descriptive-analytical approach was adopted by examining numerous sources related to the research topic to provide a theoretical perspective. As for the practical aspect, it relied on analyzing the survey results using statistical software (SPSS, Version 28) to obtain the findings and present recommendations. The research yielded several key findings, most notably confirming the existence of a correlation with a percentage reaching 83.9%. Additionally, it demonstrated an impact with a percentage of 78.9% between smart quality practices and the transition towards digital business. This research employed a questionnaire survey to delineate and diagnose the main variables, aiming to ascertain the extent of the impact of the independent variable on the dependent variable. This research stands out in its comprehensive and data-driven exploration of a set of artificial intelligence tools (smart quality), taking into consideration a wide array of factors and their practical effects to enhance banking operations for digital transformation in the Iraqi environment.*

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**Keywords:** Smart Quality, Artificial Intelligence Tools, Digital Business, Al-Rasheed Bank

## 1. Introduction

Digital transformation faces multiple challenges, including cybersecurity concerns, budget constraints, and cultural resistance within the organization. Addressing these challenges requires clear strategies such as appointing specialized teams, utilizing digital adoption platforms, and providing continuous training for employees to fully leverage new digital technologies (Whatfix, 2024). The success of digital transformation relies on integrating smart quality management systems, empowering leaders and employees, and overcoming organizational and cultural challenges to ensure effective and sustainable implementation (Siemens Blog Network; McKinsey & Company).

Quality is considered the starting point for achieving excellence and sustainable performance in any organization. This is accomplished by establishing a strong foundation to ensure the quality of the products or services the organization provides. The use of smart technology in quality management represents a significant step towards the future. It constitutes a new and fundamental approach that draws its strength from using intelligent analytics and artificial intelligence techniques to improve quality and make informed decisions. Within this approach, organizations view the quality function as a partner and a value provider, rather than just a business cost. This perspective helps them integrate quality and compliance into everyday operations while enabling speed and efficiency (Practice, 2021).

This research aims to conduct a comprehensive analysis and evaluation of the impact of implementing smart quality practices within the framework of the transition to digital business at Rasheed Bank in Mosul, Iraq. By investigating the benefits and challenges associated with adopting smart quality techniques, this research aims to provide valuable insights into the effectiveness and potential of these technologies in improving digital operations at Rasheed Bank.

By scrutinizing the relevant literature, and evaluating case studies and data, the study is expected to address various parameters, and describe, and measure the relevance of such methods about digital business quality in Iraqi banks. Moreover, this investigation will reveal how the adoption of these technologies affects the phase of moving into digital banking at Rasheed Bank located in Mosul. It is worth mentioning that the results of this study will undoubtedly contribute to updating information about the most appropriate smart quality techniques that will be used at banks. Moreover, there will also come up important aspects connected with smart quality practices and their effect on performance enhancement and improving customer satisfaction levels in the banking industry. To summarize, the digitization of banking

practices is an essential aspect of today's banking and will be even more critical. Those banks that adopt it will likely have a competitive edge in the digital era. Consequently, smart quality techniques can be considered as an indispensable element when looking at the effect of digital business on customer satisfaction levels. When examining the potential advantages and difficulties associated with these tools, it is crucial to develop a roadmap that can help companies in Iraq to successfully move into a digital business sphere, with greater ease. Policymakers and stakeholders would benefit from this research as it would provide them with crucial details on the right decision-making approaches that would facilitate the successful incorporation of the digital economy within banking operations at the national level.

## **2. Literature Review**

### **2.1. Smart Quality**

Smart quality is all about using technology, data, and smart manufacturing methods to streamline operations, make informed decisions, and aim for the highest possible quality level, which could be 100% perfect. In regard to 'Smart Quality,' this is considered to be the measure of the quality of services and products formed in a given process (Yang et al., 2023). According to Xu et al. (2018), Smart Quality is defined as a system that uses recurring pattern entities to identify both present and past quality problems so that appropriate measures are implemented promptly after tracing the causes. The idea here is to start work now in preparation for the future foundation of knowledge in the quality area. It is a statistical control process, which is employed by using and analyzing historical data with the help of artificial intelligence methods as per Kim & Ryu (2020). The method serves to preclude outputting faulty products in the future and enables innovation across value chains through the use of comprehensive information that ensures the best availability of information resources. Smart Quality has become more of a quality control tool rather than the measurement of production processes in quality management in recent years. Also, it covers the whole processes within the organization's production life cycle, including quality aspects on procurement, design, planning, production, distribution, and marketing. Three major categories that Smart Quality applications can be classified into are pre-manufacturing, during manufacturing, and post-manufacturing (Oztemel 2021). In the same way, a Smart Quality Control System has been launched that applies automated ways of overseeing production processes to identify anomalies with the help of devices like thermal imaging cameras, laser projectors, and mobile computers (Yudin et al., 2020). Additionally, it's regular for Smart Quality Management societies to take computer vision-based inspection technology and machine learning as handy. A deep learning-based vision system has been implemented

to identify and classify defective products while ensuring accuracy (Wang et al., 2019).

Leader and Corporation (2020) emphasizes that "Smart Quality" techniques such as 3D scanning and BIM have been used in construction processes. It has been highlighted that quality inspection using these smart technologies was not only more time-efficient than previous quality inspections but could also be achieved with a reduced workforce.

Sundaram and Zeid (2023) pointed out that "Smart Quality" involves intelligent inspection as an artificial intelligence-based system that enhances model performance and addresses many factors that affect the optical inspection process. It partially automates the inspection process and allows control over the effects of various significant and other environmental factors. Chesalin et al. (2020) provided an overview of the "Smart Quality" tools that can be employed to address quality-related issues within an organization.

On the other hand, the European Commission has emphasized that humans remain the most valuable assets of any company. They are skilled, intelligent, adaptable, creative, and outperform most intelligent machines, technologies, or smart robots (Müller, 2020). In response to this shift in focus, the concept of "Smart Quality Management" in Industry 5.0 has been introduced, emphasizing the pivotal role of the research and innovation sector in supporting the industry's long-term service to humanity (Bajic et al., 2023).

Therefore, it is important to emphasize that establishing Smart Quality Management in Industry 5.0 and business is not an alternative to the current Industry 4.0 concept but is the result of a forward-looking perspective on the need for engineers and workers' skills, knowledge, and the ability to collaborate with machines and robots on one hand, and flexibility in manufacturing processes, business performance, and environmental impacts on the other hand (Zizic et al., 2022).

Reviewing relevant literature highlights numerous areas in which intelligent systems are used to enhance the quality of processes, products, and services. Some of these areas can be listed as follows: (Oztemel, 2021; Xu et al., 2018).

- Ensuring the quality of processes, products, and services, guaranteeing reliability, and detecting potential deviations.
- Generating alerts for abnormal operations and error detection.
- Predicting the behavior of machines, devices, and related equipment in terms of expected returns.
- Monitoring machinery and condition to ensure machines are in good health.

- Ensuring end-to-end supply chain efficiency, including resource management, from suppliers to customers.
- Handling inventory and improving materials management.
- Implementing computer vision-based inspection using machine learning techniques to detect defective products.
- Deploying intelligent systems to enhance quality standards in the process (design experimentation).
- Benchmarking to allow for system comparisons with their counterparts.

In the same context, Somasundaram et al. (2020) emphasized that the "Smart Quality" system facilitates data storage, processing, and transformation into knowledge for quality issue resolution. This system enables users to retrieve knowledge through an interactive interface between workers and computers. Organized knowledge and enhanced processing can be directly accessed to resolve issues and used as a reference for addressing new problems.

Companies that have adopted the "Smart Quality" system have demonstrated significant enhancements in quality compared to traditional approaches. For instance, "Smart Quality" has empowered organizations to reduce the total cost of quality by up to 50% and has made a measurable impact through five core pillars: Basic Quality Control, Smart Quality Assurance, Process and Product Mastery, High-Quality Smart Work Methods, and Smart Compliance Enterprise (Practice, 2021).

Thus, by improving big data and advanced computing as more efficient and sustainable technologies compared to cloud computing, it is possible to prepare small datasets for use in Smart Quality Management. These small datasets provide valuable insights promptly for the system's operations and are organized in an easy-to-understand manner for everyone (Bajic et al., 2023; Jabrane & Bousmah, 2021).

The impact of Smart Quality in the transformation towards digital banking and financial institutions can be measured through the utilization of intelligent techniques, such as Artificial Intelligence (AI). AI is one of the digital technologies that enables companies to progress and thrive in the digital age, influencing how businesses innovate and transition to digital operations, while also adapting to the evolving needs of customers (Mariani et al., 2023; Verganti et al., 2020).

Research results identified institutions with high performance that use artificial intelligence techniques and related tools and technologies to reestablish their operational functions and methods (Wamba-Taguimdje et al.,

2020). As stated in Yazici et al. (2023)'s words, Machine Learning (ML) is a field within Artificial Intelligence that has been subject to considerable study and research in recent years.

Though machine learning has been defined differently in various literature works, two eminent figures in the field, Arthur Samuel and Tom Mitchell, have given succinct definitions of this term. According to Samuel, machine learning is where computers learn to perform specific tasks without being explicitly programmed to do so. Tom Mitchell defined it as the construction of computer programs that automatically improve with experience. The common feature in these two definitions is computer learning.

Upon a thorough examination of the aforementioned literature, one can discern the paramount prerequisites associated with the notion of "smart quality" as it pertains to the transition toward digital enterprises within organizations. These prerequisites encompass the utilization of intelligent technologies, namely smart automation, smart sensing, extensive data analysis, smart quality control, information security, and the ongoing training of personnel to scrutinize data about quality. They, therefore, facilitate the identification of problems and errors at their initial stage, leading to immediate actions that avert them before they can materialize. An extensive range of sources is targeted to gather the data, including sensors, digital systems, operational procedures, and client interactions. The process involves careful analysis of the gathered information in order to reveal distinctive patterns, novel trends, as well as a thorough understanding of which variables have an impact on product or service quality within an organizational structure. The techniques predominantly used in this operation include:

**Smart Automation:** The use of smart automation in manufacturing and service processes is an effective way to reduce human errors and improve accuracy. Robots and artificial intelligence systems are capable of performing routine tasks with a high level of precision (Rajeshkumar et al., 2023).

- **Intelligent Sensing:** Smart sensors and electronic systems are used to collect the required data at the same moment when production or service is provided with its every particular. They come in handy as they give detailed information that is not prone to mistakes, convert it into digital data, and thus help the company in decision-making (Wilson et al., 2023).
- **Big Data Analytics:** AI-based methods along with data analytics approaches to assess how far the identified information has potential threats or room for improvement. These analytics could be helpful in process improvements, waste reduction, and cost savings (Hsu et al., 2023).

- Smart Quality Control: Implementation of smart quality control tools which involve ongoing supervision of all processes and immediate identification of deviations from predetermined norms. It greatly contributes to lowering the level of defective products and enhancing the quality (Yudin et al., 2020).
- Information Security: The safeguarding of the collected and used sensitive data and information from leaks as well as cyber breaches (Ding et al., 2023).
- Continuous Employee Training: Offering consistent training to employees who are engaged with smart systems so that they can be knowledgeable enough about the technologies they use and can make full use of them in their work (Demerouti, 2023).

## **2.2. Digital Business**

The complexity and uncertainty of the COVID-19 pandemic had its beginning in the early 21<sup>st</sup> century. This crisis impacted all parts of society, emerged on a worldwide level, and played a part in major consequences on the economic, political, and social aspects of life (Reuschl et al., 2020). By the same token, the pandemic crisis has driven changes and enhancements in business processes and enterprise landscapes with customer-centric philosophies, infrastructure technologies, competitive orientations, and technology-driven organizational practices as major levers (Samper et al., 2022).

The shift towards digital work is a significant challenge facing leaders in modern enterprises. Managing the interaction between emerging technologies, existing organizational setups, organizational design, business processes, and overall organizational goals requires a reevaluation and adaptation of existing strategies and practices within the organization (Jonathan et al., 2023). It can be said that customer experience and operational efficiency are two key areas significantly impacted by the process of digitization and technology adoption in the banking and financial services industry, technological innovations are tracked to ensure enhanced customer satisfaction and operational effectiveness (Ortaköy & Özsürünç, 2019). According to Yu et al. (2022), the term "digital transformation of business models" encompasses activities that businesses engage in to improve efficiency and gain value by altering their business model. Verhoef et al. (2021) underline that this process is never-ending; it consists of a range of changes, where information, computation, communication, and connectivity technologies are the main means of organizational restructuring. It should be highlighted that digital

transformation stands as one of the most significant contributors toward multiple advantages and benefits for organizations and economies.

. It promotes competition, innovation, organizational performance, operational efficiency, economic growth, and sustainable development (George & Schillebeeckx, 2022). Furthermore, digital business processes and automation offer significant opportunities to greatly enhance customer experience. By utilizing digital technologies, artificial intelligence, and automation, companies can improve the quality of the services they provide to customers, leading to increased satisfaction and loyalty (Samper et al., 2022).

When it comes to digital transformation in banking and finance, the banking industry is undergoing a significant shift due to smart digital technologies. Traditional banks face increasing competition from emerging fintech companies that offer new and innovative products and services. To maintain their competitive edge, banks need to embrace digital transformation and adopt new technologies to ensure continuous improvement in their services, which can help attract more customers (Al-Hosani & Tariq, 2020).

Singh (2020) highlighted that information technology has not only affected the human aspect of life but has also had a significant impact on businesses. Today, every financial institution, whether public or private, is rapidly transforming itself into digital platforms to make its services more user-friendly, thus shifting its identity from traditional banking services to relationship-based banking services. This banking approach is known as "digital banking services."

Hang et al., (2021) mentioned that digital transformation has become imperative for banks worldwide, including in Vietnam, to adapt to the evolving digital economy and meet customer expectations for digital interaction and innovative services. Banks can greatly benefit from digital transformation by embracing technology and improving business processes through automation and artificial intelligence. Consequently, banks can engage in product and service delivery activities on digital platforms, effectively leverage data, and thereby enhance business problem-solving capabilities and customer engagement.

Digital transformation in banking services refers to the use of digital technologies to enhance customer experience, streamline processes, and reduce costs. This includes the use of mobile applications, online banking services, big data analytics, and artificial intelligence (Mondal, 2023). The emergence and proliferation of these digital technologies have led to a massive increase in available data, making data analytics and machine learning capabilities important competitive advantages for companies (Trischler & Li-Ying, 2023).

Service quality in the banking sector is crucial for competition and profitability, especially with the industry's shift towards providing banking services through mobile apps and online channels. Therefore, most banking institutions are restructuring their roles and policies to meet these evolving needs and deliver high-quality banking services (De Leon et al., 2017; Ameen et al., 2019). Many banks and financial institutions are earnestly working to implement intelligent quality control in online banking services. By delivering smart banking services, banks can achieve success and gain customer satisfaction and loyalty (Al-Hosani & Tariq, 2020).

There are numerous benefits to digital transformation in delivering banking services. For customers, it can mean faster access and better, more convenient quality financial services. For banks, it can mean accessing vast amounts of data and information, improving efficiency, and reducing costs. The primary goal of digitization is to reduce human transactions, human error, and "getting it right the first time" (Saeed, 2023). As noted by Kraus et al. (2022), the main objective of digital transformation is to address challenges related to efficiency and effectiveness.

Based on the aforementioned literature reviews regarding the shift towards digital operations in banks and the scarcity of literature explicitly specifying the dimensions embraced by the digital business variable, as well as the nature of each bank's operations, we will identify several dimensions through interviews conducted by researchers to assess the level of impact through smart quality in the transition towards digital operations, which affects all aspects of the banking business (Ding et al., 2023; Hang et al., 2021; Mondal, 2023).

- **Digital Banking Services:** This dimension encompasses the deployment and development of mobile phone applications and websites that enable customers to conduct their banking transactions and interact with the bank with ease and security.
- **E-commerce and Digital Payments:** Modern technology enables banks and customers to carry out e-commerce and digital payment operations securely and conveniently. Customers can make online purchases and payments using credit cards and other banking services.
- **Cultural and Digital Transformation:** This aspect is one of the key components in achieving successful digital transformation in banking. Cultural transformation necessitates a shift in mindset and approach within the organization to embrace technology and the changes it brings.
- **Cybersecurity and Biometric Technology:** Banks are concerned with providing a high level of cybersecurity to protect customer data and

banking transactions. Biometric technologies such as fingerprint and facial recognition are utilized to enhance the security of verification processes. Data and sensitive information collected and used by smart systems must be safeguarded against leaks and electronic breaches.

- Automation and Digital Self-Operation: These dimensions aim to enhance operational efficiency and reduce manual processes through automation. Modern techniques like artificial intelligence, machine learning, and software robots are employed to execute repetitive and standardized tasks more quickly and accurately.

### **3. Methodology**

#### **3.1. Research Problem**

The digital transformation is not merely confined to the shift from traditional banks to digital ones; rather, it represents a vital shift in how banks and other financial institutions engage with their customers. Understanding their digital behavior and meeting their needs, leads to fundamental changes within these institutions through the adoption of intelligent quality practices that cater to customer needs and aspirations. The research problem centers around the primary question: "Do smart quality practices play a role in the transition toward digital operations in Al-Rashid Bank?" This primary question leads to several subsidiary questions, such as:

- What is the level of interest of the responding sample in the variables of the research (Smart Quality Practices, Digital Business) at Al-Rasheed Bank?
- What is the nature of the correlation between Smart Quality Practices and Digital Business at both the partial and overall levels?
- Is there an impact of Smart Quality Practices on the transition towards Digital Business at both the partial and overall levels?

#### **3.2. Research Importance**

Digital transformation represents a significant shift in the banking and financial sector, requiring a deep understanding of customer behavior and better meeting their needs. Adopting Smart Quality Practices plays a crucial role in achieving this goal. Therefore, this research demonstrates the importance of understanding the relationship between Smart Quality Practices and the transition to digital business at Al-Rasheed Bank. By addressing the research questions, the study can provide strong evidence contributing to the development of more effective strategies for a successful digital transformation.

### **3.3. Research objectives**

- Measure the level of interest of the responding sample in the research variables (Smart Quality Practices and Digital Business) at Al-Rasheed Bank.
- Analyze the statistical relationship between Smart Quality Practices and Digital Business at both the partial and overall levels to determine the extent of the impact of these practices on digital transformation in the bank.
- Provide practical recommendations for the management of Al-Rasheed Bank on how to improve Smart Quality Practices and enhance the transition to digital business.

### **3.4. Research Hypotheses: Two hypotheses have been formulated to determine the strength of the relationship and the impact between the variables:**

- H1: There is a significant correlation between Smart Quality Practices (both overall and partial) and Digital Business.
- H2: There is a significant impact of Smart Quality Practices (both overall and partial) on Digital Business.

### **3.5. Research Methodology**

The research adopted a Case Study methodology, characterized by an in-depth and comprehensive analysis of an individual or specific case(s) within a defined context. This approach is used to understand a wide range of topics, phenomena, and issues and typically involves collecting data from multiple sources such as observations, interviews, documents, and archives.

### **3.6. Research Sample**

A survey sample consisting of (42) employees at Al-Rasheed Bank, Abu Tamam Branch in Mosul, Iraq, was selected.

### **3.7. Research Instruments**

A five-point Likert scale questionnaire was used for data collection, with weightings (1, 2, 3, 4, 5) representing responses ranging from "Strongly Agree," "Agree," "Somewhat Agree," "Disagree," to "Strongly Disagree." The questionnaire included two variables: the first variable encompassed Smart Quality Practices (independent variable) represented by (Smart Automation, Intelligent Sensing, Big Data Analytics, Smart Quality Monitoring, Information Security, and Continuous Employee Training), with each practice consisting of 3 questions, totaling 18 questions. The second variable

(dependent variable) represented the transition to digital business with 10 questions. To illustrate the significance of these variables and demonstrate the strength of the relationship and impact between them, statistical programming using SPSS-V:28 was employed, utilizing various statistical methods such as Cronbach's Alpha, correlation coefficient, simple regression analysis, F-test, T-test, means, and standard deviations.

### 3.8. Face Validity of the Questionnaire

The face validity of the questionnaire was assessed by presenting it to a panel of expert reviewers in the field of management sciences to ensure the accuracy and suitability of the questionnaire items for the research hypotheses.

### 3.9. Measurement of Questionnaire Reliability

To ensure the reliability of the questionnaire, the Cronbach's Alpha coefficient was used. Table 1 presents the results of this test for the research variables.

Table 1: *Results of the (Cronbach-Alpha) scale test for all research variables*

The main variables	Sub variants	Scales	Value (Cronbach -Alpha)
"Smart Quality Practices"	"Smart Automation"	(X1-X3)	0.920
	"Intelligent Sensing"	(X4-X6)	0.925
	"Big Data Analytics"	(X7-X9)	0.921
	"Smart Quality Monitoring"	(X10-X12)	0.925
	"Information Security"	(X13-X15)	0.925
	"Continuous Employee Training"	(X16-X18)	0.927
"Digital Business"		(X19-X28)	0.921
Aggregate index		(X1-X28)	0.950

Source: Prepared by the Researchers based on the statistical analysis program

## 4. The Practical Aspect Of The Research

This aspect presents the results, description, and analysis of the responses from the research participants, followed by a discussion. It then proceeds to present the results of hypothesis testing using the statistical software (SPSS-V:28).

**Description and Diagnosis of Smart Quality Practices:** Table 2 indicates that Smart Quality achieved an overall agreement rate for all practices

(79.94%), with a somewhat overall agreement rate of (14.5%), while the overall disagreement rate was 5.56%. The total mean was 4.18, which is higher than the assumed mean for the research (3), with a total standard deviation of 0.872. This suggests that the responding sample has a good level of awareness and interest in all Smart Quality Practices described by the variable of Smart Quality. This provides preliminary evidence that the bank values Smart Quality Practices as its approach and philosophy in managing its operations. One of the practices that contributed the most to the overall response rate was the Information Security practice, as it achieved the highest mean of (4.35) with a standard deviation of (0.851). This suggests that the bank's management places the highest priority on information security for the beneficiaries of its banking services. On the other hand, the practice with the lowest response rate was Big Data Analytics within the Smart Quality Practices, with the lowest mean (3.99) and a standard deviation of (0.893). This indicates that the bank's management is striving to implement intelligent tools for analyzing big data to ensure the bank's success and enhance its reputation.

**Description and Diagnosis of the Digital Business Variable:** Table 2 shows that this variable achieved an overall agreement rate for all its items (78.53%), with a somewhat overall agreement rate of (13.96%), while the overall disagreement rate was 7.51%. The total mean was 4.10, which is higher than the assumed mean for the research (3), with a total standard deviation of 0.881. This indicates that the surveyed individuals are well aware of the importance of the transition to digital business at Al-Rasheed Bank.

Table 2: Describes and Diagnoses the Research Variables (N = 42)

<b>(The Independent Variable</b>	<b>Response Rates %</b>			<b>Mean</b>	<b>S. D</b>	<b>Ranking</b>
	<b>SA,A</b>	<b>SA</b>	<b>SD,D</b>			
Smart Automation (X1-X3)	81.55	12.05	6.4	4.21	0.870	Third
Intelligent Sensing (X4-X6)	77.06	18.2	4.74	4.11	0.873	Fifth
Big Data Analytics (X7-X9)	75.7	17.5	6.8	3.99	0.893	Sixth
Smart Quality Monitoring (X10- X12)	78.90	14.80	6.3	4.17	0.884	Fourth
Information Security (X13- X15)	84.1	10.6	5.3	4.35	0.851	First
Continuous Employee (X16- X18) Training	82.35	13.85	3.8	4.25	0.861	Second

Overall Index (X1- X18)	79.94	14.5	5.56	4.18	0.872	—
(DV Digital Business)						
(X19- X28) Overall Index	78.53	13.96	7.51	4.10	0.881	

**Results of the correlation hypothesis test H1:** The results presented in Table 3 indicate a significant positive correlation at an overall level between the variables of smart quality practices and digital business in the bank, with a correlation coefficient value of (0.839\*\*), and a significance level of (0.000). Based on these results, it is evident that there are strong statistically significant levels of positive synergy between the studied variables. The findings suggest that an increased emphasis on these practices positively reflects on achieving high-quality digital service. At a partial level, the results reveal a significant correlation between each smart quality practice and digital business. The correlation coefficient value between the practice of "smart automation" and digital business is (0.716\*\*), between "smart sensing" and digital business is (0.701\*\*), and for "big data analytics," it is (0.725\*\*). The practice of "smart quality monitoring" achieved a correlation value of (0.733\*\*), while the correlation for "information security" was (0.773\*\*), and finally, the practice of "continuous employee training" achieved a correlation value of (0.820\*\*). All these correlations were statistically significant at a level of (0.000). This underscores the active role these practices play in the transition towards digital business at Al-Rasheed Bank.

Table 3: Total and Partial Correlation Coefficients Statistic.

Individual Smart Quality "Practices	"Aggregated Digital Business	
	Correlation ".Coefficient	".Significance Level
Smart Automation	0.716**	0.000
Smart Sensing	0.701**	0.000
Big Data Analytics	0.725**	0.000
Smart Quality Monitoring	0.733**	0.000
Information Security	0.773**	0.000
Continuous Employee Training	0.820**	0.000
Aggregated Smart Quality ".Practices	0.839**	0.000

Source: Compiled by the researchers based on the results of statistical analysis (N=42, P ≤ 0.05).

Based on the results of testing the correlation hypothesis H1 at both the overall and partial levels of the research variables, the hypothesis asserting the

existence of a significant positive correlation between smart quality practices and the transition toward digital business at Al-Rasheed Bank is accepted.

**Results of Hypothesis Testing H2:** The results in Table 4 indicate a positive and significant impact (at an overall level) of the smart quality variable on the transition towards digital business at Al-Rasheed Bank. This is evident from the calculated F-value of 250.868, surpassing the critical value of 4.073 with degrees of freedom (40,1). The impact is further affirmed by the calculated T-value of 15.839, exceeding its critical counterpart of 2.021. Additionally, the significance level (Sig) is 0.000, which is lower than the assumed significance level of 0.05. The coefficient value ( $\beta_1$ ) is 1.581, and the determination coefficient (R<sup>2</sup>) is 0.789, indicating that 78.9% of the variation in digital business can be attributed to smart quality practices, emphasizing their significant and effective influence. In the same context, the results in Table (4) show a positive and significant impact of each smart quality practice on digital business at Al-Rasheed Bank. The calculated F-value for "Smart Automation" is 74.608, with a corresponding T-value of 8.638, both exceeding their critical values. The significance level is 0.000, and the coefficient value ( $\beta_1$ ) is 2.674. The determination coefficient (R<sup>2</sup>) is 0.527, indicating that 52.7% of the impact on digital business is attributed to smart automation. Similarly, the calculated F-value for "Smart Sensing" is 64.667, with a T-value of 8.042, both surpassing their critical values. The significance level is 0.000, and the coefficient value ( $\beta_1$ ) is 2.802. The determination coefficient (R<sup>2</sup>) is 0.527, indicating that 52.7% of the impact on digital business is attributed to smart sensing. For "Big Data Analytics," the calculated F-value is 74.085, with a T-value of 8.607, both exceeding their critical values. The significance level is 0.000, and the coefficient value ( $\beta_1$ ) is 2.673. The determination coefficient (R<sup>2</sup>) is 0.525, indicating that 52.5% of the impact on digital business is attributed to big data analytics. The calculated F-value for "Smart Quality Monitoring" is 82.630, with a T-value of 9.090, both exceeding their critical values. The significance level is 0.000, and the coefficient value ( $\beta_1$ ) is 2.602. The determination coefficient (R<sup>2</sup>) is 0.552, indicating that 55.2% of the impact on digital business is attributed to smart quality monitoring. For "Information Security," the calculated F-value is 99.685, with a T-value of 9.984, both surpassing their critical values. The significance level is 0.000, and the coefficient value ( $\beta_1$ ) is 2.093. The determination coefficient (R<sup>2</sup>) is 0.598, indicating that 59.8% of the impact on digital business is attributed to information security. Finally, the calculated F-value for "Continuous Employee Training" is 137.853, with a T-value of 11.741, both exceeding their critical values. The significance level is 0.000, and the coefficient value ( $\beta_1$ ) is 2.345. The determination coefficient (R<sup>2</sup>) is

0.673, indicating that 67.3% of the impact on digital business is attributed to continuous employee training.

Table 4: *Overall and Partial Test Results for the Impact of Smart Quality Practices on Digital Business*

"Individual Smart Quality Practices"	"Aggregated Digital Business"						
	$\beta$ 1	Sig	F Statistics		T Statistics		$(R^2)$
			Calculated Value	Tabular Value	Calculated Value	Tabular Value	
Smart Autn.	2.674	(0.000)	74.608	4.073	8.638	2.021	0.527
Smart Sensing	2.802	(0.000)	64.667	4.073	8.042	2.021	0.491
Big Data Analytics	2.673	(0.000)	74.085	4.073	8.607	2.021	0.525
Smart Quality Monitoring	2.602	(0.000)	82.630	4.073	9.090	2.021	0.552
Information Security	2.093	(0.000)	99.685	4.073	9.984	2.021	0.598
Continuous Employee Training	2.345	(0.000)	137.853	4.073	11.741	2.021	0.673
Aggregated Smart Quality Practices".	1.581	(0.000)	250.868	4.073	15.839	2.021	0.789

Based on the results of the hypothesis test H2, both at the overall and partial levels for the research variables, is accepted.

## 5. Conclusions

The variable of smart quality practices achieved a high level of endorsement from respondents, receiving strong support at 79.94%, with the practice of "Information Security" outperforming at 84.1%. There is a need for improvement in the bank's interaction with the "Big Data Analysis" practice, which received 75.7% support. The digital business variable achieved a support rate of 78.53%, indicating the importance of transitioning to digital business. Opportunities exist to enhance support and interaction in certain areas, especially regarding "Big Data Analysis." Hypothesis H1: There is a positive and significant correlation between "Smart Quality Practices" and "Digital Business" at both overall and partial levels. This suggests that an increased focus on smart quality practices will enhance the delivery of high-quality digital services in the bank. Hypothesis H2: There are positive and significant effects overall for smart quality in the bank's transition to digital business. The determination coefficient values ( $R^2$ ) indicate that 78.9% of the impact on digital business is attributed to smart quality practices. The impact

ranges from 52.5% to 67.3% on a partial level, depending on the type of practice. These results affirm a strong and positive impact of smart quality practices in promoting the bank's digital transformation and enhancing the delivery of high-quality services to customers and beneficiaries. Based on these conclusions, we recommend that the bank reinforces its digital transformation by adopting smart quality practices (artificial intelligence tools) based on the development of a comprehensive strategy. Additionally, the bank should enhance employee capabilities through continuous training, and monitoring technologies, foster innovation, improve interaction with big data analysis, and strengthen information security. Increasing employee awareness of digital business, measuring progress using performance indicators, encouraging research and innovation, collaborating with governmental entities and private sectors, and establishing partnerships for knowledge exchange in the digital transformation field are also essential aspects to focus on.

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## HOW SERVANT AND HUMOROUS LEADERSHIP LINK TO INNOVATIVE BEHAVIOR: EXPLORING THE MODERATING ROLE OF WORKPLACE FUN ENVIRONMENT

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**Abstract.** *This study aims to assess the link between servant leadership and humorous leadership with innovative behavior and a workplace fun environment as a moderator between the two paths. Survey design was used and data was collected from those who work in the service industry of Pakistan. Sample size was 350. The data was analyzed using Smart PLS. As per results, servant leadership and humorous leadership are linked significantly to innovative behavior. Moreover, a workplace fun environment moderates the link between the servant and humorous leadership and innovative behavior. Our study adds to the direction of leadership styles and innovative behavior in the service industry along with identifying the new aspect of the workplace's fun environment. Under the canopy of social exchange theory, servant leadership presence provides a platform for the growth and development of employees in the presence of a workplace fun environment which leads to improved innovative behavior. Thus, employees repay positively the exchanges received from their leader and environment. Finally, using the social information processing theory, the presence of humor and fun at the leadership level and workplace environment is a meaningful way to affect innovative behavior. This study contributes by providing managers an insight into the use of workplace fun environments and leadership styles as a strategy to improve innovative behavior.*

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**Keywords:** Humorous leadership, Innovative behavior, Workplace fun environment, Servant leadership.

## 1. Introduction

In the era of innovativeness, organizations are required to innovate their products and services. Thus, a greater level of pressure is being faced by organizations to remain competitive via the inclusion of innovativeness (Fatemi et al., 2021) achieve this, knowledge workers play a key role by sharing innovative ideas to gain an edge over others. So, organizational leadership can shape this process by appreciating innovativeness (Elidemir et al., 2020; Mutonyi et al., 2022). As a result, knowledge workers feel motivated to display innovative behavior (Mehmood et al., 2022). Therefore, among all the myriad factors, one factor that perhaps affects innovative behavior (hereafter, IB) among knowledge workers is the leadership role (Elsetouhi et al., 2023; Ha, 2022).

The notion of leadership has changed its stance to manage the strategic and operational aspects to servant and humorous leadership aspects to manage employees' behavior (Stone & Patterson, 2023; Tan et al., 2021). Referring to leadership style, humorous leadership (hereafter, HL) is an interpersonal communication process used by the leader to share information or things consciously to entertain subordinates (Robert et al., 2016), resulting in influencing IB and creativity (Zhang & Su, 2020; Zhang et al., 2022). On the other side, servant leadership (hereafter, SL) focuses on developing subordinates not just to please them but to amplify IB (Wang et al., 2019), by satisfying their needs (Xiu et al., 2023). Therefore, both leadership styles might affect IB.

However, there is a plethora of research and evidence related to leadership styles and IB from the lens of different moderators and mediators (Hoang et al., 2022; Jin et al., 2022; Rongbin et al., 2022); yet the explanation does not suffice related to fun in a work environment. Further investigation is needed related to IB, workplace fun environment (hereafter, WFE), and leadership styles like SL and HL as the already undertaken studies did not deliberate on the mentioned factors.

To be more innovative employees need the unrelenting evolution in the environment like the presence of fun to neutralize the work pressure (Lee et al., 2022; Lin et al., 2022). Fun in the environment can have a positive impression on employees' minds (Jyoti & Dimple, 2021). In this regard, Leaders are responsible for creating WFEs; it leads to forming a sense of positive psychological feeling among employees to adapt to changes (Jing et al., 2021; Tsaur et al., 2019), henceforth helps in amplifying IB. Nevertheless, Jalilianhasanpour et al. (2021) elaborated that SL focuses on giving credit; this latter is best attained by creating an environment full of humor, fun, and gratitude can lead to generating positive employee behavior (Boekhorst et al., 2021; Eva et al., 2019). As per social exchange theory (SET), employees

usually repay the exchanges positively or negatively depending on the response received from their supervisor and environment (Settoon *et al.*, 1996). For instance, positive exchange signifies positive behavior. Therefore, the coworker, supervisor, and environment exchange also require more attention to extend the scope. On the adjacent side, another side that has not yet been explored by the researchers in the extant literature is the moderating role of a WFE between SL and IB.

In addition, as per the social information processing theory (SIPT), humor is a form of using appropriate and meaningful social information for knowledge workers to understand the social context of the workplace environment and adjust their behavior and attitude accordingly (Khassawneh & Mohammad, 2022; Salancik & Pfeffer, 1978; Zalesny & Ford, 1990). However, the investigation regarding the above-mentioned link is missing in the literature. Therefore, to fill this gap, this study assesses by using SIPT to view how the link between HL and IB might be affected in the presence of a WFE as a moderator.

Our study meets the subsequent objectives. Firstly, to examine the SL role in stimulating IB at work. Secondly, to unveil that IB can be affected by HL. Thirdly, to assess the moderating role of a WFE between SL, HL, and IB. Fourth, to broaden the SET and SIPT scope by evaluating WFE as a moderator between SL, HL, and IB. Lastly, this study provides empirical evidence that adds to the servant and humorous leadership, IB, and WFE literature in the context of a developing country like Pakistan.

## **Review of Literature**

### **Servant Leadership and Innovative Behavior**

For the development of innovative products and services, creativity acts as a foundational aspect (Woodman *et al.*, 1993); as a result, innovation grows when it is handled with care (Tierney & Farmer, 2002). Thus, creativity and innovation can be distinguished. For instance, creativity pinpoints the idea's radicalness and novelty on the other side IB incorporates socio-psychological processes at the individual level for idea realization and implementation (Anderson *et al.*, 2014; Lee *et al.*, 2020; Rank *et al.*, 2004). Apart from this, IB is delineated as the intentional proposal and implementation of that idea to bring improvement in processes, policies, and practices which help to augment the organizational strategic position by managing the environmental changes (Anderson *et al.*, 2014; Kwon & Kim, 2020). Seeing IB from the view of intentional and practical sides requires initiative, planning, and direction to manage the changes by implementing ideas (Iqbal *et al.*, 2020). Frequent changes and implementation of new ideas make IB a risky adventure because of the failure associated with it (Yang *et al.*, 2017; Yuan & Woodman, 2010)

whereas change often faces resistance among peers and top management due to risk and time involvement in the implementation of new ideas.

For instance, IB is divided into two gears: firstly, idea creation and secondly idea implementation. Likewise, different skills are needed for both such as cognitive skills for idea creation and sociopolitical skills for the idea's implementation. Here comes the role of supportive and encouraging leadership; as it plays a facilitating role to help and direct employees to embark upon IB - a risky escapade. The above-mentioned argument will suffice the need for SL which plays a facilitating role.

The SL notion was introduced by Greenleaf (2002). SL tend to be more empathetic and accept the person by focusing on how to develop them by critically evaluating their performance and focusing on their growth and development (Page & Wong, 2000), which might help them to become what they want (Eva *et al.*, 2019). The cracks of SL focus on motivating employees for their growth and development. From the employee-centered perspective, SL makes sure that the employee's growth is at the center of attention by executing practices (Rabiul *et al.*, 2022). Therefore, the supporting role of SL augments employee's emotional side positively (Yoshida *et al.*, 2014), and enhance cognitive abilities to generate more creative ideas.

From the implementation of ideas, employees need support from stakeholders. Success chances may increase when the sociopolitical stage is expedited. So, SL tries to implant a mutual thought to encourage knowledge workers to work for others (Greenleaf, 2002; Manz & Sims, 1987; Page & Wong, 2000). Here comes the point, SL can play a facilitation role in entrenching workers' sociopolitical skills by expediting the process further to focus on community development at its core (Laub, 2018, 1999; Liden *et al.*, 2008). Henceforth, this could bring change in employees' behavior to get support from others for the implementation of innovative ideas. In the extant literature, few studies found the usefulness of SL in influencing IB (Ekmekcioglu & Öner, 2023; Nguyen *et al.*, 2023). Based on the above-mentioned reasoning, the subsequent hypothesis was framed.

*H1: Servant leadership links to innovative behavior in the workplace.*

### **Humorous leadership and Innovative Behavior**

Humor is seen as an individual personality trait (Martin, 2001), a form of social communication (Cooper *et al.*, 2018), verbal and non-verbal forms of communication (Pundt & Venz, 2017), engaging employees in a friendly manner by telling jokes (Karakowsky *et al.*, 2020), to foster positive transactions (communication) between leaders and employees (Kuiper *et al.*, 2010). In the face of financial and economic instability, leaders are responsible for motivating employees through information sharing that pleases them to

perform well (Xu, 2020). Humor is seen as an effective tool for leadership in such cases where so many variations are happening in the external and internal environment. The humor word comes from the Latin word “homorem” which means “liquid or fluid” (Li *et al.*, 2019). The notion of humor has now entered into the organizational behavior field because the sense of humor is a critical factor for a leader to be successful (Sobral & Islam, 2015). Therefore, the use of humor by the leader in transactions can add value in terms of quantity and quality by showing concern and care (Huertas-Valdivia *et al.*, 2022), as a result, it can help alleviate employees' frustration, boredom, and fatigue leading to improved leader and employee relationship (Li *et al.*, 2019).

But one question arises whether humor is always fruitful or not. To answer this question numerous scholars shared their views such as Martin *et al.* (2003) elucidated that people view humor as a trustworthy and reliable trait of a personality to augment innovative performance and behavior (Robert & Wilbanks, 2012; Zhang & Su, 2020), engagement (Yam *et al.*, 2018), employee voice (Potipiroon & Ford, 2021), creativity (Hu & Luo, 2023), positive emotion (Cooper *et al.*, 2018), bootlegging (Zhang *et al.*, 2023) and organizational citizenship behavior (Cheng *et al.*, 2023).

Humor can be perceived positively or negatively by employees depending on the way it is communicated (Holmes, 2007). On the other side, humor may have different forms that can affect the physical and psychological health of employees negatively or positively (Ho *et al.*, 2011). Primarily, from the leader's perspective, the process of humor can be comprehended as an important tool. On the other side of the veil, from the employee's view, as the recipient of humor from the leader, they not only appreciate this act (Yam *et al.*, 2018) whereas they also learn from the positive attitude of the leader (Cooper *et al.*, 2018). As a result, employees feel more confident to creatively solve problems and issues (Su *et al.*, 2019), and face difficulty confidently by sharing innovative ideas to solve the problem (Baas *et al.*, 2013). Subsequently, in promoting IB; HL plays a major role. Therefore, the following hypothesis was framed for assessment.

**H2: Humorous leadership links to innovative behavior in the workplace.**

### **Moderating Role of Workplace Fun Environment**

Creating a pleasant and positive environment within the organization can be a fundamental factor (Ugheoke *et al.*, 2022), for fun activities inclusion in socialization, and job responsibilities. As a result, employees' involvement in the creative process be improved (Michel *et al.*, 2019; Qureshi *et al.*, 2022). So employees need a pleasant and comfortable environment that tends to produce positive outcomes as compared to an unfavorable environment

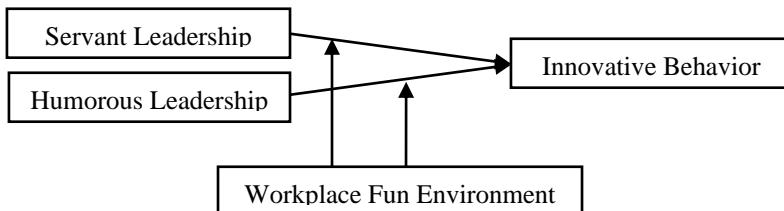
(Huang *et al.*, 2015; Sutaguna *et al.*, 2023). Workplace fun may be seen as a strategy to meet the employee's psycho-emotional needs to work effectively under pressure (Tews *et al.*, 2015). WFE presence can act as a catalyst (Karl *et al.*, 2005; Tews *et al.*, 2015) between Humor in leadership (Huang *et al.*, 2023), manager and leader support for fun (Tews *et al.*, 2015) and IB. Besides, humor from the employee perspective is the subcomponent of the social dimension of fun. From the leader or manager's perspective, workplace fun is viewed as a support for spurring positive outcomes such as IB (Ba *et al.*, 2023), task performance and satisfaction (Zia-ur-Rehman *et al.*, 2023) and creative behavior (Yang and Chen, 2023), work engagement (Plester & Hutchison, 2016), job satisfaction (Chan & Mak, 2016), team performance (Han *et al.*, 2016) and learning (Tews *et al.*, 2017).

In addition, humor is thus used to enhance social transactions to provide a cushion against stressful conditions by managers (Romero and Cruthirds, 2006; Sizemore and O'Brien, 2023). Here the role of leadership suffices. For instance, the leader is responsible for creating a pleasant workplace environment to share interesting things by using humor (Kim *et al.*, 2016), this might help relieve the risks and uncertainties faced by the employees during the implementation of innovative ideas and afterward behavior (Pundt, 2015; Pundt & Herrmann, 2015). On the other side, fun in a work environment is an effective way to build relationships between humorous leaders and employee behavior (Hooper, 2017; Tan *et al.*, 2021). However, it remains inconclusive how the WFE can moderate the link between HL and IB in the literature.

Looking at the SL style, two attributes exist. Firstly, the caring and stewardship qualities of a leader that focus on moral conduct. Secondly, the management aspect is where the leaders improve employees' behavior by creating a pleasant workspace (Andersen, 2018). Likewise, servant and humorous leadership can help employees maintain good leader and subordinate relationships by building a strong sense of trust (Pundt, 2015; Ramdani, 2023) which results in affecting the IB positively or negatively. However, it remains inconclusive how the WFE can moderate the link between SL and IB in the literature. Therefore, based on the prior arguments, a WFE can be a moderator between SL, HL, and IB. Subsequently, the following hypothesis was framed and the research framework is mentioned in Figure 1.

*H3: A workplace fun environment moderates the link between servant leadership and innovative behavior in the workplace.*

*H4: A workplace fun environment moderates the link between humorous leadership and innovative behavior in the workplace.*



*Figure 1: Research Framework*

## **Methodology**

In the current study, for data gathering, service sector (knowledge) workers in Pakistan were contacted. Consent was taken from workers regarding their participation. The questionnaire was administered among 600 workers, and only 350 filled out the questionnaire. To examine SL, Liden *et al.* (2008) scale was used with seven items. One sample item is "My leader can tell if something work-related is going wrong". To measure HL a seven-item scale was used developed by Thorson and Powell (1993). The sample item is mentioned as "My leader uses humor to help me master difficult situations". WFE is measured through fourteen items including fun activities, environment, and socializing (Tews *et al.*, 2014). The sample item is stated as "My managers emphasize employee fun in the workplace". IB was assessed through six items taken from the scale of Scott and Bruce (1994). The sample item is specified as "Employee searches out new technologies, processes, techniques, and/or ideas".

## **Results**

### **Respondents Profile**

The respondent's profile is mentioned in table 1. According to the results, 73.1 % were male representation in the study whereas 26.9 % were female representation in the study. However, 18.6% of respondents had having bachelor whereas 50.9% with master's, and the remaining 30.5 % with Ph.D. education.

Table 1 *Respondents Profile*

Variables		Percentage
<b>Gender</b>	Male	73.1%
	Female	26.9%
<b>Education</b>	Bachelor	18.6%
	Master	50.9%
	PhD	30.5%
<b>Experience</b>	<5 Years	76.9 %
	5-10 Years	18.9%
	>10 Years	4.2%

### Validity and Reliability

To examine the measurement model, the validity and reliability were examined. As per the table 2 results all variables have Alpha and CR values  $> 0.70$ , which indicates the reliability of the items (Hair *et al.*, 2019). Besides, all the item loadings were  $>0.70$  (Alzahrani, 2020; Hair *et al.*, 2014). Moreover, convergent validity was assessed using the average variance extracted, which indicates a value  $> 0.5$  for all the variables (Hair *et al.*, 2014). Heterotrait-monotrait (HTMT) ratios were used to examine discriminant validity. Hence no issues of validity as the pair's ratios were less than 0.85 (Henseler *et al.*, 2015).

Table 2 *Validity and Reliability*

Variables	Alpha	CR	AVE	Min. loadings
SL	0.827	0.865	0.743	0.764
HL	0.782	0.789	0.694	0.835
WFE	0.925	0.928	0.817	0.877
IB	0.779	0.781	0.684	0.801
HTMT ratio	(1)	(2)	(3)	(4)
HL (1)				
IB (2)	0.504			
SL (3)	0.226	0.368		
WFE (4)	0.076	0.151	0.421	----

### Descriptive Statistics

Table 3 indicates mean and standard deviation values. As per the results, each variable values are as follows, SL (mean= 3.71, Std. deviation= 1.155), HL (mean=3.53, Std. deviation= 1.020), IB (mean=3.77, Std. deviation= 1.195) and WFE (mean=3.74, Std. deviation= 1.013). The correlation values indicate the meaningful link among all the variables.

**Table 3 Descriptive Statistics and Correlation Analysis**

<b>Variables</b>	<b>Mean</b>	<b>Std. Dev.</b>		
SL	3.71	1.155		
HL	3.53	1.020		
WFE	3.74	1.013		
IB	3.77	1.195		
Correlation	(1)	(2)	(3)	(4)
SL (1)	1			
HL (2)	0.445 (.000)	1.00		
WFE (3)	0.362 (.000)	0.513 (.000)	1.00	
IB (4)	0.275 (.000)	0.417 (.000)	0.645 (.000)	1.00

**Structural Model**

Based on the results mentioned in table 4. SL links to IB was supported ( $\beta = 0.358$ ;  $p < 0.05$ ). On the other side, HL links to IB was also significant ( $\beta = 0.242$ ;  $p < 0.05$ ). In addition, in our study, two moderating paths were analyzed. The first link i.e., WFE was found to significantly moderate the link between SL and IB ( $\beta = 0.174$ ;  $p < 0.05$ ). However, the second path related to WFE weakened the link between HL and IB ( $\beta = -0.126$ ;  $p < 0.05$ ). Moreover, plotted interactions are shown in Figure 2 and Figure 3.

**Table 4 Structural Model**

<b>Hypotheses</b>	<b>Beta</b>	<b>Std Error</b>	<b>t value</b>	<b>P value</b>
SL $\rightarrow$ IB	0.358	0.121	2.940	0.003
HL $\rightarrow$ IB	0.242	0.083	2.900	0.004
SL * WFE * IB	0.174	0.071	2.464	0.014
HL * WFE * IB	-0.126	0.055	2.267	0.023

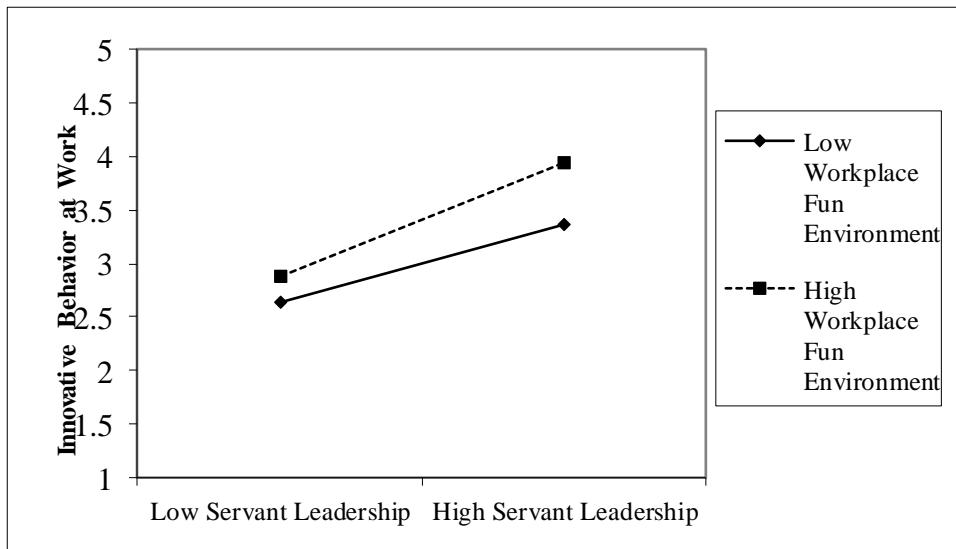


Figure 2: Moderating Role WFE Between SL and IB

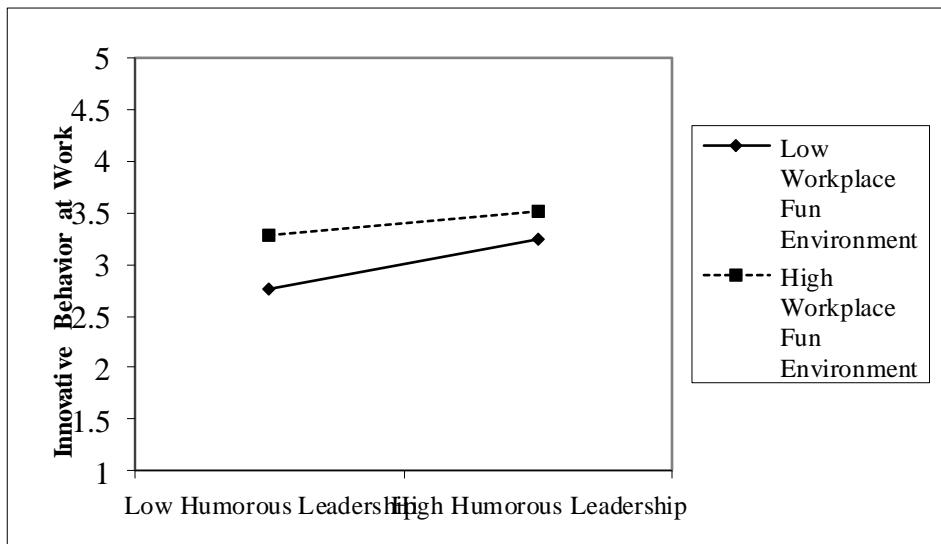


Figure 3: Moderating Role WFE Between HL and IB

## Discussion

Our study is primarily focused on meeting the following objectives. Firstly, to examine the SL role in stimulating IB at work. As per the result of the study, this objective was met; SL plays a crucial role in improving IB in the workplace. The results of our study are in accord with the studies of (Ekmekcioglu & Öner, 2023; Nguyen *et al.*, 2023). Secondly, IB can be

affected by HL. Thus, as per the results, HL was found to be an essential predictor in spurring IB. Study results are in line with the views and results shared by prior researchers (Cooper *et al.*, 2018; Holmes, 2007; Su *et al.*, 2019; Yam *et al.*, 2018). This indicates that humor as a means of social communication can help to create a synergy among employees which leads to improved IB at the workplace. Thirdly, to assess the moderating role of a WFE between SL, HL, and IB at work. As per the study outcomes, WFE moderates the link between SL and IB. Therefore, the provision of WFE can aid in strengthening the link between SL and IB in the workplace. Results are in line with the study of Ramdani (2023). On the other side, a WFE weakens the link between HL and IB. Therefore, an HL must be vigilant when using humor in the transaction and WFE needs to be balanced in the presence of an HL, otherwise, it may create a negative perception among employees, thus affecting their behavior negatively as studies also highlighted that fun and humor can have a positive and negative side as well (Kim *et al.*, 2016; Pundt, & Herrmann, 2015; Ramdani, 2023).

Lastly, our study expands the SET scope. Henceforth, employees usually repay positively all the exchanges received from their leader and environment (Settoon *et al.*, 1996). Finally, results support the SIPT that the presence of humor and fun at the leadership level and work environment is a meaningful aspect for employees to display their positive or negative behavior and attitude and it depends on the perception level of receipts (Khassawneh & Mohammad, 2022; Salancik & Pfeffer, 1978; Zalesny & Ford, 1990).

### **Theoretical and Practical Contributions**

This study makes a theoretical contribution in the following ways. First, our study unearthed the moderating role of a WFE between SL and IB in the workplace as limited studies exist in this regard. This study provides empirical evidence related to SL and HL to spur IB in the presence of a WFE in a developing country like Pakistan. Our study indicates that WFE acts as a catalyst between leadership styles and IB. Thus, SL led to focus on employee-centered practices through socializing with people and standing back in case of failure. WFE can add fun and help employees in socialization to deal with stress and display innovative behavior. So, SL can garner positive outcomes in the form of IB display by knowledge workers in the presence of WFE. As per the earlier discussion, a positive environment can enable both cognitive as well as sociopolitical processes to innovate effectually.

Secondly, this study elucidated the link between HL and IB with a moderator that is WFE. It has been evident that WFE weakens the link between HL and IB. The provision of workplace fun can equip employees to better deal with pressure and come up with more innovative ideas in the presence of HL.

However, it can affect negatively as well so management due diligence is needed to create a balance between when and how to share information by providing training to prevent the prevalence of negative perceptions among employees.

This study offers several implications from the practical side. As the service industry is facing dynamic changes in this regard, servant and humorous leadership can be used to augment IB. Moreover, managers must focus on the growth and development of knowledge workers to help them display IB. Besides, managers and employees need to be trained regarding the effective use of humor as per the situation demands to help and facilitate change and stressful conditions to come up with innovative ideas and display IB effectively whereas employees need to cooperate with the leaders in the context of change. To counter the negative outcomes linked to a WFE, managers must be trained to set boundaries and create an environment about when and how to use humor or fun to deal with stress and work pressure to have better leader and employee relationships. Henceforth, the service approach and positive transaction can enable knowledge workers to display IB at the workplace.

### **Limitations and Direction for Future Researchers**

Likewise, every study this study also has some limitations. As the data was congregated from a single source the chances of common method bias can be there. So future researchers can examine the proposed model using multi-source data for analysis. In addition, only one moderator was examined. Future researchers may incorporate mediators and another contextual factor affecting the link between SL, HL, and IB.

### **Conclusion**

Our study has assessed the link between SL and HL with IB along with the moderating role of a WFE in the service industry of Pakistan. As the service industry is facing dynamic changes from the environmental and customer sides, this requires employees to innovate and remain competitive. In this regard, servant and humorous leadership can be used to augment IB. In addition, creating fun at the workplace can help to break the traditional mindset to follow at work. Despite the fact, that workplace fun is a necessary aspect and it is important to mention here, that the other side of workplace fun can be dysfunctional, to counter the negative outcomes linked to a WFE; managers and employees must be trained to set boundaries when using humor or fun for the creation of a pleasant environment in a developing country like Pakistan to have more positive outcomes.

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# STRESS MANAGEMENT, WORKLIFE BALANCE, EMPLOYEE'S WELLBEING AND PSYCHOLOGICAL CAPITAL AMONG IT EMPLOYEES OF PAKISTAN

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**Abstract.** *The study investigates the impact of stress management and work-life balance on employee well-being, exploring the moderating role of psychological capital (PsyCap) among IT employees in Pakistan. The findings reveal significant positive correlations between stress management, work-life balance, and employee well-being. Psychological capital acts as a moderator, amplifying the positive effects of stress management and work-life balance on well-being. Employees with higher PsyCap resources are better equipped to manage stress, achieve work-life balance, and experience greater well-being. These findings highlight the importance of promoting stress management practices and PsyCap development in organizations to foster a healthier and more productive work environment for IT employees.*

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**Keywords:** Stress management; Work life Balance; Employee's wellbeing; Psychological capital; IT workers

## Introduction

The amount of time individuals spend at work underscores the importance of a positive and supportive workplace environment. It directly affects employee well-being and has impact on their physical and mental health (Michael et al., 2007). Modern employees face many challenges. Rising living expenses, increased demands related to work-life balance, and the like can lead to stress and health issues (Omar et al., 2015). The struggle to fulfill both personal and professional demands exacerbates stress levels and negatively impacts well-being. This means it has a critical role in employee well-being. It could be positive (eustress) or negative (distress) (Oxford University Press, 2018). Eustress, or positive stress, can motivate individuals to achieve goals and enhance productivity. In contrast, distress, or negative stress can lead to suffering and hinder performance.

Therefore, understanding the interplay between workplace environment, stress, and employee well-being is essential for organizations. By fostering a supportive environment that minimizes distress and promotes eustress, organizations can contribute significantly to the overall well-being of their employees and their productivity. When employees face situational constraints, they take such situations either challenging and motivate them or hinder their productivity (Bakker & Demerouti, 2017). These constraints often manifest as stressors, which are categorized into two main types: challenge stressors and hindrance stressors (Cavanaugh et al., 2000). Challenge stressors, like deadlines or complex tasks, positively stimulate employees by providing opportunities for growth and achievement. For example, a tight deadline can motivate an employee to develop new skills and work efficiently. Conversely, hindrance stressors, such as unclear instructions or lack of resources, create undesirable circumstances that hinder progress and satisfaction. For instance, unclear instructions can lead to confusion, frustration, and ultimately, missed deadlines.

Pakistan boasts a thriving IT industry, with over 10,000 registered companies under the SECP and ranking 5th in net export services (SECP, 2023). This growth is concentrated in Punjab, where Lahore, dubbed the "Silicon Valley of Pakistan," houses numerous software houses and top universities in the IT field. While this burgeoning sector offers promising opportunities, challenges remain. Pakistani universities churn out thousands of IT graduates, many of whom compete for positions in top software houses. To secure employment, some individuals resort to long working hours, jeopardizing work-life balance and impacting their physical and mental health. This research aims to understand how strengthening PsyCap can empower employees to effectively manage stress, leading to happier and more balanced lives. Drawing inspiration from Bell et al. (2012), this study investigates the multifaceted relationships among PsyCap, employee well-being, stress management, and work-life balance within Pakistan's IT industry. By examining these interactions, we hope to gain valuable insights into how to optimize the well-being of employees in this rapidly evolving sector. This study highlighted that how implementing effective stress management strategies, fostering a culture of work-life balance, and acknowledging individual differences, organizations can empower employees to achieve well-being and reach their full potential.

This study describes the effect of stress management and work-life balance on employee well-being, exploring the moderating and mediating role of psychological capital. It aims to identify stressors affecting employee well-being at the workplace, analyze employee strategies for managing stress, examine the impact of work-life balance on employee well-being, study how psychological capital resources (hope, efficacy, resilience, optimism)

moderates and mediates the relationship between stress management, work-life balance, and employee well-being. There are few studies which focuses on moderation and mediation of PsyCap on these constructs, and unique in context of IT sector of developing countries especially the case of Pakistan. On the basis of above discussion, there are eight hypotheses to be tested in this study, which are given below:

## **Literature Review**

### ***Employee well-being and Psychological capital***

Keeman et al. (2017) conceptualize employee well-being as feeling satisfied and performing well at the workplace. A person's quarter of his/her adult life is spent on work and it is a major part of a person's life. So, performing well at the workplace and being satisfied with the work and personal routine are the major components of an employee's well-being. Page and Vella (2009) described the questions about what, why, and how the well-being of the employee is focused, and the model of employee well-being is constructed on three factors. 1) Subjective well-being (it relates to the satisfaction from a job that will provide satisfaction in his overall life); 2) Workplace well-being and 3) psychological well-being. According to Avey et al. (2010), employee well-being is mostly considered as the employee's satisfaction with the job but broadly it is the quality of the employee's experience and how he functions at the workplace. This describes his physical, psychological, and sociological well-being.

Psychological capital is defined as the individual's constructive psychological condition that includes four constructive psychological resources which are self-efficacy, hope, optimism, and resilience (Luthans et al; 2008). Psychological Capital deals with the behavior, attitude, and performance of the employee, and this concept is gaining interest. It impacts the employee on an individual level and also influences team and organizational levels (Newman et al, 2014).

Avey et al. (2010) explained that Positive psychological resources like hope, optimism, motivation, support, and resilience have been related to employee performance management.

Psychological capital resources relate positively with well-being, and focus on employee well-being which also helps the company to increase productivity (Sin & Lyubomirsky 2009; Walia & Nishtha, 2018). PsyCap helps to lessen stress and increase well-being by maintaining favorable conditions to maintain work-life balance and reducing the bad impact of stress on employees' well-being (Youssef & Craig, 2019). So psychological capital helps to achieve well-being by reducing pressure on the employee and

maintaining workplace spirituality and giving him hope, optimism, resilience, and efficacy which is very important for his performance management and well-being because he will feel less stressed and manage internal emotions that will maintain his well-being.

The workplace has changed over the last forty years due to the growth in the IT department, changes in the organization structure, and contract bases work has changed the way of doing work in many organizations which causes stress and impacts employee well-being. To deal with the diverse working environment it is necessary for the organization to make strategies that provide flexible working hours, and to take care of the employee's needs to minimize stress and provide well-being to the employee.

### **Stress Management and Psychological Capital**

Stress according to Baqutyan (2015) is defined as an unpleasant condition of emotional and physical arousal that people face in conditions that seem dangerous and terrifying to their well-being. Stress has three different dimensions. Stress may be from the external resources that can come from the environment that causes tension. Stress may be subjective which shows that stress is the internal state of mind that causes tension. It may be a critical, emotional, and defensive process that happens inside the person. This promotes maturity and also causes strain on the mind. Thirdly stress is the body's reaction to the demands that damage his well-being and this reaction helps in coping with the stress (Baqutayan, 2015).

Stress is an umbrella term with wide meanings, but the two meanings derived from stress at the workplace are the factors that generate stress like workload, and the stress response that comes from these stressors, which can be the inability to deal with the stress. There are various stress models like a demand-control-support model. When the demands of the job are high and workers are unable to meet the demands and they don't have support from their colleagues this causes stress in them.

Another model is the effort-reward-imbalance model in which the employee's efforts are higher and the rewards according to his efforts are insufficient. This model proposes six management standards if not properly managed impact the employee's well-being. These are demands of the job control which means how much the employee can handle work, support from the organization, relationships among colleagues, and understanding the role and changes in the organization.

Occupational stress is a complex phenomenon and there are various models to understand occupational stress. The JD-C (Job Demand Control) model states that high demands for the job cause high stress on the employees and the factor to control the tasks reduces the negative impact of high job

demands. The JD-R (Job demand resource) model states that job demands produce stress and job resources produce motivation in employees. Adequate resources help the employee to deal with high job demands. The conservation of resource model suggests that people use resources to overcome stress (Hui & Aye, 2018).

How individuals manage their emotions impacts their well-being. Negative emotions create depression in individuals. Depression results in inappropriate emotions, and poor cognitive control, which increases expressive suppression. Rumination is common in depression and individuals face unwanted, negative thoughts. It relates to worry and fear. Some individuals take these stressors more seriously than others (Compare et al; 2014).

To maintain self-image a person considers others as a competition, they don't believe in collaboration with others and they become uneasy in interacting with their environment and their self-become more important rather than other. They develop zero-sum relationships with others which induces stress and affects their well-being (Crocker & Canevello, 2008). When their weaknesses appear in front of people they lose emotional bonding with the people. Maintaining self-image decreases their self-esteem and thus stress and depression increase (Crocker et al., 2010).

Employees who face fear are more prone to stress, anxiety, and depression. Excess workload results in dissatisfaction, discontentment, and poor bonding at the workplace. It results in the ill-being of the employee (Coetzee & Harry, 2014). Work stress is the result of mismatched job demands and the resources and their ability to fulfill those demands. Stress culture develops negative consequences on both the individual and the organization so that's why stress management is very important (Sahoo, 2016).

In Pakistan, job stress has an impact on performance and has adverse effects on the employee's well-being (Dar & Naseem, 2011). Stress management is the ongoing process of controlling, diagnosing, and preventing stressors that impact employees, organizations, and productivity. If stress is not handled properly results in the deterioration of employees' health both psychological and physiological.

IT professionals face a lot of stress due to heavy targets and excess pressure. So, stress management, physical and mental activities that lower stress, finding the stressors that trigger stress, organizational support, and counseling programs should be introduced (Devi, 2011). Acronym HERO which means hope, efficacy, resilience, and optimism is considered the psychological resource of PsyCap that best fits the Inclusion criteria because it gives the sense of support and agency to achieve the goal. Hope and

confidence are controlled by the person himself and come from the internal locus of control but optimism and resilience are developed after the circumstances (Alarcon et al; 2013).

Stress may be positive but mostly it is seen that PsyCap helps to make a person more creative even with stress (Ghafoor & Haar, 2022). If PsyCap is considered as a moderator at the individual level and its relationship between different variables is studied then it shows various influences on workplace outcomes. PsyCap moderates the relationship between stress and bad habits in such a way that it is weak for those who have high PsyCap (Roberts et al., 2011). So, those employees who have high psychological capital are better able to cope with stress management strategies.

### **Work-life Balance and Psychological Capital**

Work-life balance means managing work tasks and family responsibilities and obligations and maintaining a balance between them to have a good quality of life. Employees maintain work-life balance by having autonomy of work, having responsibility for the work, having good relationships with their supervisors, avoiding bringing work to their homes, by having quality time to focus on their life (Byrne, 2005). Work-life balance involves distributing time, energy, and commitment across work and non-work domains, fostering a fulfilling and balanced life (Brough et al., 2020).

In Pakistan due to the changes in the economy, work-life balance has become very important and imbalance in work and life impacts both the personal and work life. It has shown that work-life balance has a positive relationship with employee satisfaction and organizational commitment (Arif & Farooqi, 2014). Maintaining work-life balance is very important for mental well-being and a continuous workforce. This will help the organizations to retain better employees and increases productivity because it produces skilled employees (Fazal et al, 2022).

The stress on the employee occurs when one side either family or the workplace put excess pressure on the employee and this effect the individual performance towards his responsibilities imbalance of work and life may also affect the well-being of the individual and result in a dissatisfied and unhappy life. Organizations demand more time from the employee at the job and that employee also has to fulfill his family responsibilities, if he loses the balance between family and works then it results in lower satisfaction from the family and involved more in family roles the individual may sacrifice the working hours.

Job demands create a high level of distress among employees and excess work done by individuals in this competitive world on evenings and weekends becomes common. This may result in poor management of work/life balance

and many employees who are facing work/life conflicts are observed as less healthy, are less satisfied with their jobs, and wanted to leave their jobs. On the other hand, those employees who have control over their work, have flexible hours of work, and support from the organization maintain a work/life balance, and thus less conflict occurs between work and personal life (Kinman, 2008).

Psychological capital is the coping ability of the employee to deal with stress and maintain work life balance through which he will be able to maintain well-being. Psychological capital is positively related to work-life balance and employee well-being (Siu, 2013). And psychological capital is negatively related to stress (Roche et al., 2014). Psychological acts as a mediator between stress management and wellbeing, as it is the coping ability of the employee to deal with the stress that generate ideas to solve problem and maintain well-being (Rabenu et al., 2017). Therefore, there is a lack of research studies which study relation of stress management, work-life balance with employees' well-being, and psychological capital act as mediator and moderator.

### **Research Hypotheses**

Based on the literature review this study would empirically test the following hypotheses:

- H1: There is a positive relationship between stress management and employee well-being.
- H2: There is a positive relationship between work-life balance and employee well-being.
- H3: Psychological capital mediates the relationship between stress management and employee well-being.
- H4: Psychological capital mediates the relationship between work-life balance and employee well-being.
- H5: Psychological capital moderates the relationship between stress management and employee well-being.
- H6: Psychological capital moderates the relationship between work-life balance and employee well-being.

### **Conceptual Framework**

This chapter includes the relationship of each variable and explains how each variable impact each other through visual diagram.

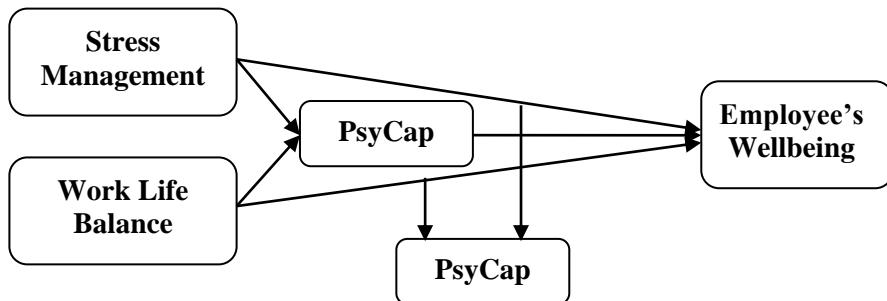


Figure 1: PsyCap as Mediator and Moderator

Increase in the stress and work pressure and the changes in the organizational structure have increased the importance of work-life balance, and stress management. It has been observed that high job stress decreases the work-life balance. Stress management avoids stress and results in the fruitful production of the individual and keeps him happy and healthy. Stress management has a positive impact on the employee and when the employee gets stressed it greatly impacts the employee's well-being (Kumar & Suresh, 2022). which shows direct relationship of employee well-being and stress management.

Psychological capital is a personal resource that helps in the growth including factors like self-confidence to deal with the challenge, have positive expectations for success, having hope, and resilience to solve the problems. It has the power to counter stress (Gautam & Pradhan, 2018). It means those who have high PsyCap can better manage work and family and their work-family conflicts reduces and they are better able to manage wellbeing (Rincon et al., 2020).

## Methodology

## Population and Research Design

The data has been collected from employees working in software houses of Lahore. Non-probability sampling is used in which convenient sampling and snowball sampling is used. Questionnaire with close-ended questions was employed and respondents choose the responses to the given statement on the scale. This research is cross-sectional with deductive approach which is considered a good approach in such studies (Bryman, & Harley, 2018).

## Research Instrument

The study employed the research instrument developed by Siegrist et al. (2004) for stress management, and work-life balance tool of Boxall and Macky (2014). The tools for employee well-being and PsyCap were taken from Stewart Brown (2009) and Lorenz et al. (2016) respectively.

## **Data Analysis and Findings**

The survey questionnaire was distributed in five different top private software houses in Lahore, Pakistan. 270 questionnaires were distributed among the participants. Out of the total questionnaire 241 were found complete in all respects and were analyzed. For data analysis, SPSS was employed.

Table 1: *Demographics*

<b>Demographics</b>	<b>Descriptions</b>	<b>Frequency</b>	<b>Percentage</b>
Gender	Male	171	71%
	Female	70	29%
Age	20-30	73	30.3%
	31-40	103	42.7%
	41-50	55	22.8%
	Above 50	10	4.1%
Education	Intermediate	0	0%
	Graduation	162	67.2%
	Master's Level	79	32.8%
Experience	Less than 1 year	8	3.3%
	1 year	54	22.4%
	2 years	116	48.1%
	More than 3 years	63	26.1%

## **Reliability Analysis**

To check the reliability of the data set or the internal consistency Cronbach's alpha is used. In other words, reliability tells to which degree data is measured consistently. This Cronbach's alpha coefficient is used mostly in questionnaire and surveys where a Likert scale is used. The Cronbach's alpha value is accepted between 0.5 to 0.7. value greater than 0.8 is considered more significant (Nunnally & Bernstein, 1994). The value of Cronbach's alpha coefficient for stress management is 0.728. So, all the items used for stress management are reliable. Cronbach's alpha for work-life balance is 0.603 which shows that all items are reliable and interrelated. The coefficient value for employee well-being is 0.644 which also shows the satisfactory level of reliability. The consistency for PsyCap is 0.760 which is also reliable.

## **Correlations**

Table 2 illustrates the correlation statistics of the data.

Table 2. *Correlations Statistics*

Variables	1	2	3	4
SM	1.00			
WLB	0.037*	1.00		
EW	0.283**	0.243**	1.00	
PsyCap	0.135*	0.423**	0.407**	1.00

*SM and EW:* A significant positive correlation ( $r = 0.283$ ,  $p < 0.01$ ) exists between stress management and employee well-being. These findings suggest that individuals who actively manage stress experience higher levels of well-being.

*WLB and EW:* A strong, positive correlation ( $r = 0.525$ ,  $p < 0.01$ ) exists between work-life balance and employee well-being. This confirms that achieving a healthy work-life balance is associated with higher levels of well-being.

*SM and PsyCap:* A significant positive correlation ( $r = 0.135$ ,  $p < 0.01$ ) exists between stress management and psychological capital. This finding suggests that individuals with higher levels of PsyCap may be more likely to engage in effective stress management practices.

*WLB and PsyCap:* A significant positive correlation ( $r = 0.423$ ,  $p < 0.01$ ) exists between work-life balance and psychological capital. This suggests that individuals with higher levels of PsyCap may be better equipped to achieve a healthy work-life balance.

*EW and PsyCap:* A significant positive correlation ( $r = 0.407$ ,  $p < 0.01$ ) exists between employee well-being and psychological capital. This finding aligns with previous research highlighting the positive association between these two constructs.

Overall, these findings suggest that stress management, work-life balance, and psychological capital are interrelated and contribute to employee well-being. However, it is important to remember that correlations do not imply causation. Further research is needed to explore the underlying mechanisms and causal relationships between these variables.

### Regression Analysis

If we want to apply regression analysis three basic assumptions must be fulfilled. (Barron & Kenny, 1986). First, there must be a relationship between dependent and independent variables. Table 3 shows that SM has a correlation with EW i.e.  $0.283$ ,  $p < 0.01$ . So, the first condition is fulfilled. The second condition is that the independent variable should have a significant relation with the moderating variable. Table 3 reveals that SM has a correlation with PsyCap with the value of  $0.135$  and  $p = 0.01$ . So, the second condition is also

satisfied. The third condition is that moderating and dependent variables should also have a significant relation which is also seen in table 2 with 0.407 and a significant value of 0.00. After ensuring the benchmarks, regression analysis was undertaken to check the mediation.

Table 3: *Regression Analysis*

Hypotheses	$\beta$	R square	P	Result
SM-WLB	0.145	0.29	0.01	Accepted
SM-EW	0.199	0.80	0.00	Accepted
WLB-EW	0.164	0.059	0.00	Accepted

The result shows that SM has a positive impact on WLB ( $B = 0.145$ ,  $p = 0.01$ ) and EW ( $B = 0.199$ ,  $p < 0.01$ ) which accepts the first and second hypotheses of the research. Similarly, WLB also has a positive impact on EW ( $B = 0.164$ ,  $p = 0.00$ ).

### Moderation Analysis

Table 4. *Statistics Regarding Moderation Analysis of ST and PsyCap*

Variables	M1 ( $\beta$ )	M2 ( $\beta$ )
Step 1		
SM	0.57**	
PsyCap	0.33**	
R square	0.63	
Step 2		
SM x PsyCap		0.21**
R square		0.64
XR square		0.01

The table 4 illustrates the significant value of SM x PsyCap. So, PsyCap moderates the relationship between stress management and work-life balance.

Table 5. *Statistics Regarding Moderation Analysis of WLB and PsyCap*

Variables	M1 ( $\beta$ )	M2 ( $\beta$ )
Step 1		
WLB	0.55**	
PsyCap	0.33**	
R square	0.172	
Step 2		
WLB x PsyCap		0.16**
R square		0.174
XR square		0.002

The table 5 shows the significant value of WLB x PsyCap. This means that PsyCap moderates the relationship between work-life balance and employee well-being.

Table 6. *Statistics Regarding Moderation Analysis of ST and PsyCap*

Variables	M1 ( $\beta$ )	M2 ( $\beta$ )
Step 1		
SM	0.24**	
PsyCap	0.41**	
R square	0.28	
Step 2		
SM x WLB		0.14**
R square		0.29
XR square		0.01

The table 6 shows the significant value of SM x WLB which means that there exists moderation between the variables. Based on Tables 4, 5, and 6, it can be concluded that the empirical data support the proposed hypotheses.

#### ***Mediation analysis***

PsyCap mediates the association between stress management and employee well-being.

Table 7. *Hierarchical regression for mediation*

Variables	M1(B)	M2(B)	M3(B)
<u>Control Variables</u>			
Gender	-0,04	-0.02	-0.02
Age	0.12*	0.11	0.12
Education	-0.04	-0.03	-0.04
Experience	0.04	0.01	-0.01
R square	0.02		
<u>Independent variables</u>			
Stress management		0.164**	0.19
R Square		0.06	
XR square		0.04	
<u>Mediating Variables</u>			
PsyCap			0.29**
R square			0.15
XR square			0.09

This study examines the mediating role of PsyCap between SM and EW through the 3 steps hierarchical regression method where in the first step all the demographic variables are added to control their effect in the second step

independent variable was added and noted their significant impact. In model 2 the value of beta is  $B = 0.164$ ,  $p < 0.01$  which is significant, and in model 3 the value of mediating variable is  $B = 0.29$ ,  $p < 0.01$  which is also significant so this model is fully mediating, and hypothesis is accepted which states that PsyCap is a mediating variable between SM and EW.

PsyCap mediates the association between work-life balance and employee well-being.

*Table 8. Statistics Regarding Mediation Analysis*

<b>Variables</b>	<b>M1(B)</b>	<b>M2(B)</b>	<b>M3(B)</b>
<b><u>Control Variables</u></b>			
Gender	-0.04	-0.04	-0.04
Age	0.12*	0.12	0.14
Education	-0.04	-0.04	-0.06
Experience	0.04	0.04	0.04
R square	0.02		
<b><u>Independent variables</u></b>			
Work-life balance		0.007**	0.013
R Square		0.03	
XR square		0.01	
<b><u>Mediating Variables</u></b>			
PsyCap			0.26**
R square			0.09
XR square			0.06

This study examines the mediating role of PsyCap between WLB and EW through the 3 steps hierarchical regression method where in the first step all the demographic variables are added to control their effect in the second step independent variable was added and noted their significant impact. In model 2 the value of beta is  $B = 0.007$ ,  $p < 0.01$  which is significant, and in model 3 the value of mediating variable is  $B = 0.26$ ,  $p < 0.01$  which is also significant so this model is fully mediating, and hypothesis is accepted which states that PsyCap is a mediating variable between WLB and EW.

These findings highlighted the important role of PsyCap in promoting employee well-being. Organizations aiming to improve employee well-being should consider interventions that foster both PsyCap development and effective stress management and work-life balance practices.

## **Discussion**

This study investigated the hypothesized direct relationship between stress management and work-life balance. The results confirm a significant positive correlation between these variables ( $r = 0.37$ ,  $p = 0.01$ ). Additionally, stress management demonstrated a positive correlation with Psychological Capital (PsyCap) ( $r = 0.135$ ,  $p = 0.01$ ). Regression analysis further strengthens these findings, confirming the positive impact of stress management on work-life balance ( $B = 0.145$ ,  $p = 0.01$ ).

Employees who effectively manage stress report better work-life balance. This aligns with previous research by Bella et al. (2012) who found that high job stress increases work-life conflicts and disrupts balance. This imbalance arises when stress hinders effective management of both work and personal responsibilities, negatively affecting concentration and increasing pressure (Shagvaliyeva & Yadanifard, 2014).

This study also looked into the moderating role of PsyCap in the relationship between stress management and work-life balance. The findings supported the hypothesis which reflect that employee with higher PsyCap resources (self-efficacy, hope, optimism, resilience) benefit more from effective stress management in achieving better work-life balance. Such resources equip individuals to better cope with stress, utilize stress management techniques effectively, and navigate work-life demands (Rabenu et al., 2017).

It has been hypothesized in this research that stress management has a direct relationship with work-life balance. The results show that there is a significant relationship between stress management and work-life balance. Correlational test is performed to check the correlation between stress management and work-life balance, the results show significant positive correlation between these two variables ( $r = 0.37$ ,  $p = 0.01$ ). Stress management also shows positive correlation with psychological capital ( $r = 0.135$ ,  $p = 0.01$ ). Regression analysis is performed to check the impact of stress management and work-life balance, the results show positive impact of stress management on work-life balance ( $B = 0.145$ ,  $p = 0.01$ ). This means that those employees who can manage their stress maintain their work-life balance and the employees who are stressed at work are not able to manage their work-life balance. The stress that is caused by work impacts an employee's personal life and disrupts his work-life balance.

This finding is also consistent with the findings of Bella et al; (2012). This means that employee with high stress would not be able to manage other work responsibilities which put pressure on him and he would not be able to do his office work with full concentration and it will increase work-life conflicts and decrease work-life balance. And according to Shagvaliyeva and Yadanifard

(2014), stress is negatively related to work-life balance which ultimately shows that stress if managed is directly related to work-life balance.

Also, the employee's psychological capital helps him to better cope with stress and maintain work-life balance. The employees coping ability depends on the resources available and these resources include self-efficacy, hope, optimism and resilience and the employees who have high resources are better able to cope with stress (Rabenu et al; 2017).

This study confirms a significant positive correlation between stress management and employee well-being ( $r = 0.283$ ,  $p < 0.01$ ), echoing previous findings that chronic stress negatively impacts mental and physical health (Kumar & Suresh, 2022). Our results delve deeper by exploring potential mechanisms underlying this relationship. The significant correlation with PsyCap suggests that individuals with higher psychological resources, such as hope, optimism, and resilience, are better equipped to utilize stress management techniques effectively, leading to improved well-being. This aligns with Rabenu et al.'s (2017) findings, where PsyCap resources act as buffers against stress's negative impacts. Future research could explore specific stress management interventions and their targeted effects on diverse employee populations to further elucidate these mechanisms.

This study is believed to have to the quality of understanding regarding PsyCap's moderating role in the stress management-well-being relationship. The significant positive correlations between PsyCap and both stress management ( $r = 0.135$ ,  $p = 0.01$ ) and well-being ( $r = 0.407$ ,  $p < 0.01$ ) indicate that PsyCap resources amplify the positive impact of effective stress management on well-being. Individuals with higher PsyCap are likely to utilize coping strategies more effectively, maintain a positive outlook, and experience greater resilience in the face of stress (Okun, 2022).

The study illustrated a strong significant relationship between two constructs, stress management, and employee wellbeing. Correlational test is performed and the results show that stress management is positively correlated with employee well-being by showing significant value ( $r = 0.283$ ,  $p < 0.01$ ). Stress management and employee well-being both are positively correlated with PsyCap and give significant results ( $r = 0.135$ ,  $p = 0.01$ ) and ( $r = 0.407$ ,  $p < 0.01$ ) respectively. Regression analysis shows positive impact of stress management on employee's wellbeing by showing positive significant value ( $B = 0.199$ ,  $p < 0.01$ ). If the employee is stressed, it will impact his mental and physical health that causes anxiety, depression, irritation, panic attacks and other heart and blood pressure issues. Employee with ill-being will not be properly able to manage their work, it will cause anxiety in the employee and he will not be able to manage stress (Kumar & Suresh, 2022).

Stress management techniques are used to eliminate the bad effects of stress on the employees to promote well-being. (Holman et al; 2018). Psychological Capital of the employee helps him to maintain their well-being by developing positive characteristics in the individual, and by protecting their mental well-being through different programs that will promote subjective well-being. It focuses on the strength of the person rather than the weaknesses (Okun, 2022). So, employees who have high PsyCap are better able to deal with stress and enjoy well-being.

This study establishes a significant positive correlation between work-life balance & employee well-being ( $r=0.525$ ,  $p<0.01$ ), confirming the hypothesis that maintaining this balance is crucial for employee health and happiness. The findings align with previous research by Fotiadis et al. (2019) who found that work-life imbalance increases stress and hinders task completion, ultimately impacting well-being. Findings revealed that employees with good work-life balance report feeling optimistic about their future, valued by their company, mentally relaxed, and better equipped to solve problems. These findings suggest that work-life balance fosters positive psychological experiences, likely due to reduced stress, increased control over personal time, and a stronger sense of purpose.

Similar to stress management, PsyCap appears to moderate the relationship between work-life balance and well-being. The significant positive correlation between PsyCap and both work-life balance ( $r = 0.423$ ,  $p < 0.01$ ) and well-being ( $r=0.407$ ,  $p<0.01$ ) suggest that individuals with higher PsyCap resources benefit more from good work-life balance. Such resources, like optimism and hope, might enable individuals to navigate work-life challenges effectively and extract greater well-being benefits from balanced schedules.

The findings of this study exhibit that employees with high PsyCap exhibit better stress management and work-life balance. They are more optimistic, resilient, and hopeful, enabling them to navigate challenging situations and effectively manage their time. This aligns with previous research highlighting the role of PsyCap as a coping mechanism that helps individuals deal with work-life conflict and its associated stress (Babic et al., 2017). Furthermore, moderation analysis confirms that PsyCap moderates the relationship between stress management and both work-life balance and employee well-being. In other words, these findings support the notion that PsyCap empowers individuals to leverage stress management techniques more effectively, ultimately leading to improved well-being (Sen & Hooja, 2015).

These findings are in line with the previous research that looked into the detrimental effects of stress on employee health and well-being, including reduced ability to cope with challenging tasks (Culbertson et al., 2010). However, our findings also reveal that employees with higher levels of

PsyCap demonstrate greater resilience in managing stress, ultimately leading to improved well-being. The positive link between PsyCap and well-being is supported by existing literature (Fredrickson, 2009). Individuals with higher PsyCap, characterized by optimism, hope, resilience, and self-efficacy, are better equipped to handle stressful situations and maintain a positive outlook. This, in turn, reduces the risk of psychological issues like anxiety and depression, ultimately promoting well-being.

The inability to manage work and personal demands leads to overtime, stress, and anxiety, ultimately disrupting well-being. Conversely, employees who effectively leverage PsyCap resources, characterized by optimism, confidence, resilience, and hope, are better equipped to navigate work-life demands, reducing stress and fostering well-being. These are also in line with Asian research highlighting the positive association between PsyCap, work-life balance, and well-being (Siu, 2013). Employees with dedicated time for personal interests, exhibiting optimism, confidence, resilience, and hope, report higher well-being. They demonstrate mental calmness, a clear vision, problem-solving abilities, and optimism, further illustrating the moderating role of PsyCap in promoting well-being through effective work-life balance and stress management.

## **Conclusion**

The present research explored employee coping strategies for stress, specifically examining the interplay between stress management, work-life balance, and employee well-being. We investigated the moderating role of psychological capital (PsyCap), a personal trait enabling individuals to navigate stressful situations, maintain work-life balance, and achieve well-being. Notably, PsyCap comprises four key resources: hope, efficacy, resilience, and optimism.

Our findings underscore the critical importance of stress management and work-life balance for employee well-being. We demonstrate that PsyCap effectively moderates the relationships between these factors, acting as a buffer against the negative effects of stress and facilitating work-life balance. Individuals with higher PsyCap exhibit greater proficiency in managing stress and achieving work-life equilibrium, ultimately leading to enhanced well-being. This reinforces the notion that psychologically capable employees are better equipped to handle stress, achieve work-life balance, and experience higher levels of well-being.

In conclusion, the study underscores the importance of promoting PsyCap development in organizations. By fostering optimism, hope, resilience, and self-efficacy among employees, organizations can empower them to manage

stress effectively, maintain a healthy work-life balance, and ultimately experience greater well-being.

### ***Practical Implications***

Many employees struggle with balancing work and personal life, leading to stress and negatively impacting well-being. PsyCap acts as a buffer against stress and facilitates work-life balance. Investing in PsyCap development through workshops and training based on Luthans et al. (2006) empowers employees to manage these challenges effectively. Higher PsyCap leads to better stress management, work-life balance, and ultimately, improved employee well-being. Senior managers and HR professionals can leverage PsyCap assessments to predict how well employees can manage stress and maintain work-life balance. This information can be used to develop targeted interventions and improve overall well-being strategies.

Our findings offer valuable insights for organizations within the software industry. Recognizing the significance of PsyCap, organizations can implement targeted strategies to cultivate and bolster this positive psychological resource in their employees. This proactive approach fosters resilience, optimism, and efficacy, empowering employees to handle demanding workloads while maintaining healthy boundaries between work and personal life. Ultimately, prioritizing PsyCap development leads to a more sustainable workforce with enhanced well-being, reduced stress, and improved work-life balance.

### ***Academic Contributions***

This study contributes to existing literature by exploring the impact of psychological capital (PsyCap) on stress management, work-life balance, and ultimately, employee well-being within the specific context of software houses. Given the unique pressures and demands this environment presents, employees often struggle to achieve balance, leading to detrimental impacts on their well-being. Furthermore, this research emphasizes the interconnectedness of stress management, work-life balance, and employee well-being. By neglecting any of these crucial aspects, organizations risk incurring the negative consequences on employee health and overall well-being. This knowledge underscores the importance of holistic approaches that address both individual and organizational factors to cultivate a thriving work environment.

### ***Limitations and future directions***

This research provides valuable insights into the role of PsyCap in software houses, but acknowledges some limitations that inform future research avenues. The study's gender composition was skewed towards males, limiting its generalizability. Future research should strive for balanced representation

to ensure findings accurately reflect the experiences of both genders in software companies. Investigating only five software houses restricts the generalizability of findings. Expanding the sample to other diverse companies within the IT industry would enhance the study's representativeness.

While focusing on IT experts provided valuable insights, excluding other departments like marketing and human resources limits the study's scope. Future research could investigate the impact of PsyCap across various departments within software houses to gain a more comprehensive understanding. While the study effectively demonstrates the link between PsyCap, stress management, work-life balance, and well-being, future research could benefit from incorporating additional variables like job satisfaction, job burnout, and work-life conflicts. Exploring these variables alongside PsyCap can provide a more nuanced understanding of how to improve employee well-being in software houses.

Overall, this research has valuable implications for both employees and organizations within software houses. By acknowledging and addressing the limitations identified, future research can build upon these findings and provide even more comprehensive insights into promoting employee well-being in this demanding industry.

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# THE IMPORTANCE OF SECURITY ON TOURISM

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**Abstract.** *Tourism is one of the sectors that has a very important place due to its significant contributions to both national and international economies. The economic importance of this sector brings the importance of security, which is an important factor in tourism, to the forefront. Research shows that safety and security are becoming increasingly important during destination selection and holiday experiences. Today, in the tourism sector, safety and security are prioritized alongside price and quality. Essentially, safety and security are critical factors in determining a country's competitiveness in the travel and tourism sector. The success or failure of a tourism destination is closely related to providing tourists with a safe and secure environment. In the future, safety and security will be among the elements that promote tourism. This study aims to examine the importance of safety in tourism, address issues related to tourism safety and security, and evaluate what can be done in this field. Accordingly, after establishing a conceptual framework, the literature was reviewed, focusing on the relationship and importance of tourism and security. Finally, recommendations were presented based on the significance of safety in tourism.*

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**Keywords:** Tourism, Tourist, Security, and Safety

## 1. Introduction

Tourism is one of the sectors that has a very important place due to its significant contributions to both national and international economies. Tourism is an important global industry that contributes significantly to the economic growth and development of nations. This interaction creates a very sensitive structure that can be affected by external and internal factors. The economic importance of this sector brings the importance of security, which is an important factor in tourism, to the forefront. Studies show that safety and security are becoming increasingly important during destination selection and holiday experiences (Hacıoğlu & Saylan, 2014).

It is known that not only in our country but also all over the world, an innumerable number of men and women are employed in the tourism sector. It

is also a fact that the tourism sector, which appeals to such a large audience, also contributes to the increase in intercultural interaction and the revival of international trade. As mentioned above, these encouraging multidimensional tourism developments also bring a series of security threats. The most serious threats to the tourism and travel sector include regional and global terrorist acts, high crime rates, natural disasters, and epidemics. These regional and global threats often have the potential to affect well-known tourist destinations as well as various industries directly or indirectly related to the travel and tourism sector (Ünlüönen, 2000).

The tourism sector, which provides employment opportunities for millions of people not only in Turkey but also around the world and facilitates international trade and cultural exchange, has significant economic benefits (UNWTO, 2021). For example, the World Travel & Tourism Council (2022) declared that the tourism sector contributed 10.4% to global GDP in 2019 and provided employment for approximately 319 million people. This rate is very important for the global economy.

Despite these advantages, the tourism industry faces several security threats that can adversely affect its stability and growth. The impact of such risks is multifaceted, affecting not only the immediate tourist destinations but also related sectors such as hospitality, transportation, and local economies. According to Gössling and Hall (2017) key security risks include:

1. **Terrorism:** Fear of terrorism is another negative factor, as potential tourists are deterred from visiting places. It has been shown that this situation can lead to long-term declines in visitor numbers. It is a fact that acts of terrorism can have devastating effects on tourism. The devastating acts of terrorism in Paris can be given as an example. It has been determined that these acts of terrorism caused a significant decrease in tourist visits and created a negative ripple effect on the relevant sectors (Neumayer, 2004).
2. **Natural Disasters:** Some natural events such as hurricanes, tsunamis and earthquakes can disrupt tourism infrastructure. They can even displace communities. The tourism sector, along with other sectors in the affected areas, can be severely affected. The 2011 Japanese tsunami served as an example of how natural disasters can have a major negative economic impact (Wu & Hayashi, 2014).
3. **Crime:** Crime is another important factor affecting tourism. High crime rates in tourist resorts can undermine the sense of security and deter current and future tourists, as tourism and visitor behavior can suffer as a direct result. This has affected long-term and short-term tourist trends (Crouch & Ritchie, 1999).

4. Epidemics and Pandemics: Health outbreaks are another major factor affecting travel worldwide. This is the most recent example of the COVID-19 outbreak that has emerged worldwide recently. Everyone has seen how and how quickly global tourism will be disrupted by this global pandemic. The tourism industry is now extremely susceptible to health-related risks as a result of this pandemic. Travel worldwide has decreased at an unprecedented rate as a result of the pandemic (World Health Organization, 2020).

These security threats not only jeopardize the safety of tourists but also impact the broader economic ecosystem that supports the tourism sector. Effective management and strategic planning are essential to mitigate these risks and ensure the sector's resilience.

## **1.2. Problem Statement**

Tourism is a critical economic driver that significantly impacts employment and GDP in many countries. The success and sustainability of the tourism sector depends on the perceived and actual security of destinations. Terrorism, political instability and increased crime can jeopardize tourist safety, and there have been declines in tourist numbers and revenues in affected areas (Hsu & Sharma 2023). Despite the critical impact of security on tourism, there is often little emphasis on integrating comprehensive security measures into tourism planning and management. Security vulnerabilities not only put tourists at risk, they also jeopardize the long-term sustainability of tourism. Consequently, understanding the important role that security plays in tourism and developing strategies to mitigate these risks is essential to promoting a growing and safe tourism industry (Hall, Timothy, & Duval, 2003).

Tourism used to be considered a luxury and a privilege reserved for the wealthy, but these days it's practically a need. Travel is becoming more popular, and nations are coming up with new ways to capture a bigger chunk of the expanding travel market. Tourism as a vehicle for social mobility is of interest to the fields of economics, sociology, and psychology. Because tourism makes it easier for different social and cultural institutions to interact, it also has an impact on societal changes and the evolution of behavioral patterns (Thurlow & Jaworski, 2017).

Among the social and psychological factors that positively affect tourism are the need for relaxation, entertainment, sports and cultural influences. However, it seems that the motivation to travel alone is not enough; economic and social factors also play a role. Tourists may prioritize the need for security when choosing a holiday. Along with other basic requirements, the security

factor is a basic need for people to live in peace and feel safe in a tourist destination (Thurlow & Jaworski, 2017).

### **1.3. Research Objective**

Security has many direct and indirect effects on the tourism sector. In this context, the main objective of this research is to understand, evaluate, and explain the impacts of the security element on the tourism sector in light of existing research on the topic. Furthermore, this research study will examine the importance of security in tourism and how it affects different aspects of traveler behavior such as destination choice, holiday experience and intention to return, how security perceptions affect traveler behavior, the negative impacts of security concerns on travel industries and destinations, and the tactics needed to successfully prevent and address security issues.

### **1.4. Importance of the Research**

The tourism sector has a wide scope within world economies, attracting attention with the increase and development in international and national tourist movements. However, as tourism revenues are affected by threats such as health issues, accidents, and terrorism, the concept of security is becoming an increasingly decisive factor in tourism activities (Baker, 2014; Tarlow & Santana, 2002). For this reason, studies on security issues in the tourism sector are among the important topics highlighted in the industry and literature (Hall, Timothy, & Duval, 2003; Ünlüönen, 2000).

## **2. Literature Review**

### **2.1. Tourism and Tourist**

When examining the literature on the concepts of "tourist" and "tourism," it becomes clear that there are numerous different definitions for these terms and no common definition exists. The Turkish Language Association defines the concept of tourism as travel undertaken for purposes such as sightseeing, relaxation, and entertainment (Turkish Language Association [TDK], 2014). In another dictionary, tourism is described as the activity of traveling to a place for pleasure; the business of providing hotels, entertainment, and restaurants for travelers; the practice of traveling for enjoyment; tourist guiding and management; and the promotion and encouragement of travel and accommodation for tourists (Merriam-Webster Dictionary, 2014). The World Tourism Organization (WTO), which offers a more comprehensive definition, describes tourism as a concept that includes the activities of people traveling outside their usual environment for reasons such as work, leisure, and other purposes, provided they do not spend more than one year at the destination (WTO, 1995).

The changing definitions of tourists and tourism are still being investigated in recent studies. Smith (2020) asserts that a growing number of people consider tourism to be a complex system that involves the interaction of numerous economic, social, and environmental elements that affect people's travel patterns and interactions with destinations. Williams and Lew (2021) state that there is a growing importance of sustainability in the tourism industry. In addition, they emphasize that the tourism sector is not only promoting economic development but also serves as a dynamic activity that addresses social and environmental challenges. In their analysis of the significance of safety and security in this sector, Tarlow and Santana (2002) discuss how these variables impact tourist experiences and the attractiveness of the destinations they wish to visit. Moreover, they examine various risks associated with tourism, including two critical factors: safety and health concerns, and analyze how and to what extent these factors influence tourist behaviors.

Regarding the definition of a "tourist," the Turkish Language Association defines a tourist as a person who travels for purposes such as entertainment, rest, sightseeing, and recognition, a traveler, voyager, or tourist (TDK, 2014). A tourist can be either domestic or foreign, depending on whether they travel within or outside their home country. Furthermore, Weaver and Lawton (2020) argue that the definition of tourist should include the growing trend of "experiential tourism" where tourists seek authentic, immersive experiences that go beyond traditional travel. McIntosh et al. (1995) defines a tourist as an individual who travels for a variety of purposes and purposes, from business to pleasure, and whose behavior is shaped by experiences and services at the destination and destination.

These contemporary definitions highlight the ongoing evolution and complexity of the terms "tourism" and "tourist," reflecting the broader changes and challenges within the global tourism industry.

## **2.2. Security**

Security reflects the multifaceted nature of tourism. In recent years, it has received increasing attention in tourism literature. It is fair to say that the term security, traditionally associated with physical security, has recently come to encompass emotional, social, and psychological aspects. According to recent studies, security in the travel industry encompasses more than just the absence of danger. Moreover, social stability, digital privacy, and health security are considered elements of security today (Drammeh, 2024). The study showed that visitors' perceptions of security are affected by data security, health concerns related to the pandemic, and physical security. Similarly, perceived security significantly affects travel preferences and preferred destinations

Fuchs and Pizam, (2011). These findings imply that destinations that provide risk management, social stability, and security can attract more and more tourists. The Turkish Language Association defines security as the preservation of the legal order that permits people to live comfortably. This new strategy is in line with that definition (TDK, 2014). In order to give tourists a satisfying and comforting experience, tourism management should take these larger aspects of security into account. It highlights how crucial mental and physical security are to communication and planning in the travel industry.

### **2.3. Safety in Tourism and Its Importance to Tourism**

It is the reality that tourist safety includes actions meant to detect and lessen potential risks and hazards during travel, bringing these incidences down to manageable levels. It entails thorough risk management techniques that cover possible hazards related to travel, including accidents, natural catastrophes, and medical problems. However, maintaining the integrity and prestige of the tourism business as well as safeguarding visitors depend on assuring safety in the sector (David & Edgell, 2020).

The main purpose of tourism security is to protect tourists from deliberate dangers and threats, primarily terrorism, crime, and sabotage. In order to protect tourists from these deliberate threats (which may include illegal activities or targeted attacks), it is essential to take effective, deterrent security measures. In addition to protecting people, security in tourism generally aims to create a safe atmosphere that increases visitor satisfaction levels (Mansfeld, & Pizam, 2006).

Security and safety measures must be linked to ensure the sustainability of the tourism sector. Governments, tourism operators and local communities need to cooperate to ensure that tourists feel safe. This includes developing surveillance systems, implementing emergency response plans and raising awareness of potential risks (Hsu & Sharma 2023). Integrating safety and security measures is essential for the viability of the tourism sector. Ensuring the safety of visitors is the responsibility of governments, travel agencies, and local communities. As a result, governments, travel agencies, and communities need to cooperate. Tourists can enjoy an approach that balances security and safety. Therefore, a positive impression is formed about it and this encourages the manager to visit more often. The highest level of security and safety is very important for success and customer satisfaction in the tourism and travel sector (Hsu & Sharma 2023; Mansfeld, & Pizam, 2006).

### **2.4. Safety and Tourism: Its Importance**

It is well known that there is substantial relationship between security and tourism. In recent years, the importance of this relationship has also increased

due to a series of high-profile events such as terrorist attacks, regional conflicts, natural disasters and pandemics, and etc. Such these events have revealed the critical role that security plays in shaping tourism dynamics and influencing behavior of travel (Gössling, et al., 2017).

Security in the tourism industry is becoming increasingly complex. Some of the main reasons for this are the emergence of variables such as rapid population growth, economic growth, and globalization. These increasing complexities have gone beyond direct threats such as terrorism and crime and have begun to include broader issues such as health crises, national and international crime, sustainable development, and resource scarcity. Consequently, the way these elements interact shows how crucial and significant security management is to the travel and tourism sector (Gössling et al., 2017).

In a competitive tourism industry, security perception is known to significantly affect various aspects of travel. For example, visitors' security perceptions can affect where they want to go, how long they will stay, and the likelihood of returning to the same place. In particular, recent studies have shown that these issues have been extensively researched and examined. It has been found out how security education affects visitors' perceptions and behaviors and the importance of proactive security measures has been revealed (Scott et al., 2017). The impact of terrorism and political instability on destination image has been analyzed and how such events change tourist perceptions and affect travel trends has been revealed (Naradda et al., 2022).

Fuchs and Pizam (2011) conducted a survey to investigate tourists' perceptions of security in popular destinations and found important findings on how security practices and incidents affect tourists' decisions (Jamal and Budke, 2020). focused on the effects of health crises such as pandemics on tourism trends and showed that global health emergencies can direct tourist preferences to safer destinations.

Both crimes that victimize tourists and organized crimes targeting tourism-related businesses are factors that can significantly damage the prestige of a destination. Similar actions can have a negative impact on tourism and deter future tourists. Perceived and effective security issues will cause tourists to choose destinations that are perceived as safer. Therefore, taking stronger security measures for the sustainability of tourism, as well as providing effective crisis management, is a necessity for the future of tourism (Kozak, M.; C. Crotts, J. and Law, R. 2007).

### **3. Methodology**

#### **3.1. Research Strategy**

This research aims to examine the importance of security in tourism and to determine the role of security issues in tourists' destination selection, holiday experience and revisit intention in light of previous studies. This research aims to reveal how security perception is reflected in tourism behaviors, how security issues harm the tourism sector and destinations, and what should be done to manage security issues. The data collection process of this study was carried out by conducting a literature review on the relationship between security and tourism.

The literature review technique was used as a qualitative research method to examine the relationship between security and tourism. With this technique, previous studies on the subject were examined, and the effects of security on tourism, destination choices, and revisit intentions were discussed. The literature review provides a comprehensive framework in terms of revealing the reflections of security perception on tourism behaviors, the negative effects of security problems on the tourism sector and destinations, and what needs to be done to prevent and manage these problems.

### **4. Research Analysis**

Based on the literature, this research shows that security is a significant factor in tourism. For instance, Ünlüönen and Seçilmiş (2009), in a survey-based study, revealed that Istanbul has an image that does not inspire confidence from certain aspects for tourists. Karaman and Polat (2020), in their study, concluded that there is a significant relationship between the security perceptions of domestic tourists visiting the Eastern and Southeastern Anatolia Regions and their intention to revisit. It was found that if visitors place high importance on the safety of the regions they choose, they are more likely to visit again. Among the reasons for this, they noted that the historical and cultural richness of these regions in recent times could be attracting tourists.

In summary, the study provided offers a comprehensive overview of the concepts of tourism, tourist, safety, and security, and their interrelatedness. Here's a structured analysis and how the references integrate into the text.

### **5. Conclusion and Recommendations**

The detailed literature reviewed on security and tourism, which has become a global issue, emphasizes that the relationship between security and safety in the tourism industry is extremely critical while addressing the multifaceted nature of the tourism sector. The security factor in tourism can affect not only tourism preferences but also economic and sometimes political

trust. In fact, this situation experienced regarding security has evolved into a more complex understanding of the process at global and individual levels (Hall, Timothy, & Duval, 2004).

Definitions of tourism and tourists vary from source to source. In addition, the tourism sector reflects the complexity and constantly evolving structure of the field. It has been observed that modern approaches emphasize that tourism encompasses a wide range from entertainment, rest, and exploring new places to business activities and increasingly includes both experiential and sustainable travel. Security today affects not only tourism but also the health sector, social and other environmental areas. In particular, it has become a necessity to achieve the desired levels of security in terms of sustainability and ensuring social welfare (Hall, Timothy, & Duval, 2004).

For all countries with tourism potential, it has great economic importance. For this, the number of tourists coming is also of great importance. However, threats and dangers continue to exist on a global scale and are experienced with greater frequency. The image of a region or country is not only its cultural and natural heritage or its economic environment. In addition to these, it is its social and political climate, public order, and both tourist and product security. For this reason, the concept of security in tourism has expanded beyond the traditional physical security understanding to include psychological, emotional and social dimensions. This broader understanding is important in that tourists' perceptions of security now include health risks, digital privacy and social stability. Effective security management is essential to reduce risks such as health emergencies and natural disasters; security measures are taken against deliberate threats such as crime and terrorism (Popescu, 2011).

Security and tourism have a crucial relationship influencing travelers' overall travel habits and location preferences. While picking a destination, travelers typically do not overlook security and safety. Prominent incidents like pandemics and terrorism have raised awareness of security concerns and illustrated the necessity of all-encompassing and proactive security measures. Terrorist incidents in different parts of the world have revealed how important security is for tourism. Perceived terrorism attracts fewer tourists. No matter how attractive a country is, tourists cannot be expected to show interest in places where there is no security and safety. The number of tourists who take this risk is quite low.

## **Recommendations**

1. *Integration of Safety and Security Measures:* Tourism stakeholders need to put forward a comprehensive approach that brings together safety and

security. The main reason for this requirement includes strong security measures against both crime and terrorism, as well as the implementation of strong risk management strategies for accidents, natural disasters and the health sector (Mansfeld, & Pizam, 2006; David & Edgell, 2020).

2. *Increasing Perceived Security:* Destination management organizations should focus on improving the perceived security of their locations in order to achieve all kinds of desired efficiency in the tourism sector, and whatever steps need to be taken in this regard should be taken. This includes not only health and safety procedures and preparations for risk management, but also clear communication about crisis response plans. Travelers' decisions can be greatly influenced if they are aware of these measures (Fuchs, & Pizam, (2011).

3. *Encouraging Experiential Travel and Sustainability:* Developments continue in the national and international tourism sector. In parallel with the development, the sector needs sustainability. Sustainability triggers competitiveness and increases success. Therefore, places to visit should encourage environmentally friendly and socially responsible practices because travel trends are moving towards sustainability and experiential travel. In the socio-economic, socio-cultural and geopolitical context, in addition to securing the long-term security existence of the tourism sector, an emphasis on authentic experiences and sustainable practices can significantly increase visitor happiness. Finally, tourists generally prefer safe destinations over dangerous travel destinations (Williams & Lew, 2021).

4. *Encouraging Cooperation among Investors:* Different scientific studies on this sensitive and critical issue have shown that creating a safe, secure and attractive environment is another strategy to achieve national or international competitiveness in the tourism sector. Therefore, both travel agencies and local communities and governments need to cooperate and ensure this among themselves. It is the fact that tourism needs to be well managed. Because tourists want a safe and attractive environment, which requires cooperation of investors. On the other hands, the investors should cooperate to ensure this and to develop and implement safety and security measures. By focusing on these critic matters, the investors should make travel purposes more attractive and more competitive for the visitors. However, in order to remain competitive in the tourism industry, destinations must also be able to attract and satisfy tourists better than their competitors (Hsu & Sharma 2023).

5. *Adapting to Emerging Risks:* Tourism investors must be cautious and adapt to emerging risks such as health crises and technological threats. It is necessary to ensure that security protocols and safety measures are updated regularly against emerging, potential and developing threats (Drammeh, 2024; Jamal & Budke, 2020).

If the suggestions listed above and similar ones are taken into consideration, it may be possible to increase both the safety and satisfaction of tourists in the tourism sector. It may even be possible to achieve the formation of a more durable and sustainable tourism sector.

The tourism sector is a vital source of income for many countries, both in terms of income generation and personnel employment. However, the perception of security that can be experienced in destinations has the potential to significantly affect this. Therefore, ensuring security in the tourism sector is a critical requirement for every country's economy. In the event of possible disruptions or problems related to tourist security, the potential to damage the reputation of a tourism destination is quite high. This issue is an event that needs to be addressed extensively with the right strategies as a national security issue. In this context, every investment that includes the security of tourists and tourism can be considered as a strategic investment in the economic future of a country.

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# AN ANALYSIS OF "NEGOTIATED JUSTICE" IN ACCOUNTABILITY LANDSCAPE: LESSONS FROM PAKISTAN

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**Abstract.** *This article explores the multifaceted landscape of accountability mechanisms in Pakistan, with a particular emphasis on the utilization of settlement procedures. Investigating the legal framework that governs these mechanisms, the study delves into their application within the country's justice system, specifically examining cases handled by institutions such as the National Accountability Bureau (NAB). The analysis dissects the advantages and drawbacks associated with captioned settlements, considering their role in expediting legal processes and potentially rehabilitating offenders. Through a comparative lens, the article contrasts the Pakistani approach with international best practices, identifying lessons learned and areas for potential improvement. Addressing ethical considerations and transparency concerns, the study evaluates the impact of these mechanisms on the broader goals of accountability, justice, and public trust in Pakistan's legal institutions. Furthermore, the article examines the challenges faced by accountability bodies in implementing these mechanisms effectively and proposes recommendations for overcoming hurdles and ensuring a more robust accountability framework. This article offers insights into the legal, ethical, and societal dimensions of such settlements. It contributes to the ongoing discourse on the effectiveness and fairness of these tools in the pursuit of justice and accountability.*

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## 1. Introduction

Accountability settlements have become integral tools in the global fight against corruption. Contemporary research discusses both the organizational and political settlements while mentioning the accountability mechanism in developing countries (Lughmani et al., 2023). In this regard a rich data is available on the organizational side of the settlements but there is a considerable lacking in research towards the political side. It would be worth mentioning here that without discussing the political settlements one cannot understand the settlement scenario at a desired level. Such mechanisms

reportedly allow legal systems to efficiently resolve cases related to white collar crimes, recover misappropriated funds and promote compliance without the need for prolonged court battles. The use of settlements is prevalent in both developed and developing countries, reflecting their effectiveness in balancing the need for swift justice with the complexities of prosecuting economic crimes. There are the shortcomings related to the extensive use of settlements which again have been discussed in the literature on accountability.

Organizational settlements in modern jurisprudence and international legal systems has both positives and negatives (Lughmani, 2022). There is a need to be fully understood before criticizing an existing mechanism. These settlements often come with conditions, such as fines, compliance measures, and organizational reforms, which aim to prevent future misconduct. However, the discretionary nature of settlements and their perceived leniency can raise concerns about fairness and transparency. Critics argue that these mechanisms might allow powerful individuals or corporations to escape full accountability while forcing innocents by the way of coercion to enter into settlements (Bibas, 2004) just to gain conviction score for the Anti-Graft Bodies (A-GBs). Therefore, while accountability settlements play a crucial role in modern anti-corruption efforts, their implementation requires careful oversight to maintain public trust and ensure effective contribution to the broader goal of justice and integrity in governance.

Plea bargaining dates back to the *Salem Witch Trials* of 1692, when suspected witches were given the choice to either admit guilt to spare their lives, or refute the accusations and risk execution (Adams, 2008). This early form of plea-bargaining risked innocent individuals confessing to crimes they did not commit (Brooks, 2011). Initially disapproved by appellate courts (Alschuler, 1979), plea bargaining gained acceptance after World War II (Vogel, 1999) and became routine in American courts by the early 20<sup>th</sup> century (Meyer, 2017).

Plea bargaining involves agreements between corporations or individuals and the prosecuting authority to settle cases of white-collar crimes such as money laundering, scams, and tax evasion (Russell, 2011). The guilty plea has been used in the legal tradition of Common Law for centuries (Alschuler, 1979) including countries like Great Britain and the United States (Mather, 1979). Article 36 of United Nations Convention against Corruption (UNCAC) presents plea bargaining as a corruption prevention model (Nelson and Santoso, 2020), where the accused pleads guilty in exchange for concessions (Kisekka, 2020). Plea bargain in today's world is used to resolve majority of the cases (Rauxloh, 2012) and even the court considered (*Brady v. United States*, 1970) this mechanism being "inherent in the criminal law and its administration" (Alschuler, 1979). The criminal justice system at United

States is considered as a system of pleas and not that of trials (Litpak, 2012) while in the case of National Accountability Ordinance (NAO) in Pakistan, one could easily render it as '*regulation of pleas*'.

## **2. Settlements under Accountability Regulations in Pakistan**

Settlements include both organizational and political ones. The former are basically driven from the criminal justice system. Here the defendant gives off his right to free trial and pleads guilty; leaving both the parties better off. It is an agreement between prosecution and defendant where he/ she get concession from prosecution (Kishan, 2018) on certain conditions (table 1).

Table 1: *Types of Plea Bargain in Criminal Justice System*

#	Type	Description
1	Sentence bargaining	The defendant pleads guilty to a lesser sentence than prescribed.
2	Charge bargaining	The defendant pleads guilty to a lesser charge framed on him.
3	Fact bargaining	The defendant pleads guilty on condition that some facts which incriminate him are to be deleted in the trial.
4	Count bargaining	The bargaining is about the head or count of charge.

Source: Adopted from Kishan (2018)

In Pakistan, both these settlements have been adopted by different political and military regimes. The most famous amongst the organizational settlements are the plea bargain and voluntary returns though both were contested and apex court issued strict directions for the modification/rectification of accountability law i.e. NAO, 1999. These settlements were made applicable during mid and late-nineties while *Ehtesab* Act and NAO were enacted respectively.

The accountability scenario remained muddy and unclear after the promulgation of NAO, 1999. The preamble of NAO elaborates the rationale which is to punish the guilty and facilitate the recovery of the looted public money or ill-gotten wealth. The settlement concept in Pakistan under an accountability law was introduced to quickly achieve the desired outcome. The powers vested in the Chairman NAB to facilitate an early settlement were discussed at length by the Honourable Supreme Court of Pakistan during the *Asfandyar Wali case* (PLD 2001 SC 607).

The NAB was provided with extra-ordinary powers where certain 'perceived' lacunas in the earlier laws were addressed to provide this institution with a strong legal backing. In this article, authors discuss only the

provisions related to the settlements. The voluntary return and plea bargain allow an accused to pay back the embezzled amount while avoiding criminal liability and prosecution. The Section 25 of NAO, 1999 defines both the Voluntary Return [commonly known as VR] and Plea Bargain in sub-section 'a' and 'b' respectively, as:

- (a) "Notwithstanding anything contained in section 15 or in any other law for the time being in force, where a holder of public office or any other person, prior to the authorization of investigation against him, voluntarily comes forward and offers to return the assets or gains acquired or made by him in the course, or as the consequence, of any offence under this Ordinance, the Chairman NAB may accept such offer and after determination of the amount due from such person and its deposit with the NAB discharge such person from all his liability in respect of the matter or transaction in issue: Provided that the matter is not *sub judice* in any court of law".
- (b) "Where at any time after the authorization of investigation, before or after the commencement of the trial or during the pendency of an appeal, the accused offers to return to the NAB the assets or gains acquired or made by him in the course, or as a consequence, of any offence under this Ordinance, the Chairman, NAB, may, in his discretion, after taking into consideration the facts and circumstances of the case, accept the offer on such terms and conditions as he may consider necessary, and if the accused agrees to return to the NAB the amount determined by the Chairman, NAB, the Chairman, NAB, shall refer the case for the approval of the Court, or as the case may be, the Appellate Court and for the release of the accused".

As discussed earlier and while looking into the history of accountability efforts in Pakistan; these modes adopted for the settlements are discussed in following paras:

*a. The organisational settlements*

In Pakistan, Voluntary Return was first introduced in the *Ehtesab* Act of 1997 (TI, 2018). Later, both VR and plea bargain provisions were incorporated into the NAO, 1999, enabling the accused to return ill-gotten wealth in exchange for freedom while limiting certain legal and political rights (Khan, 2016). Under VR, as approved by the Chairman NAB during the inquiry stage, an accused can repay the embezzled amount and avoid criminal liability (Khawar, 2019). The application of these provisions is perceived as discretionary and selective, which, given the current climate of prevalent kickbacks and the use of accountability as a tool for control, raises legitimate concerns about potential misuse of discretion (Choudhry, 2019). However, the A-GB contends that the settlement amount is determined solely by a

committee of experts. Yet, there is a notable contradiction regarding the recovery of looted wealth, as annual report 2017 of the A-GB reveals that only 6 percent of recoveries since 1999 have been through plea bargains (Khawar, 2019).

The Supreme Court of Pakistan banned VR altogether and passed a verdict that the officers entering into plea bargain will not get any promotion etc. This way, the officials/ accused opting for VR or plea bargain on the instance of NAB simply get caught in the hot waters.

***b. The political settlements***

The political settlements cover two aspects. These include promulgation of special laws to provide immunity to the culprits and amendments suggested in prevailing accountability laws by the parties in treasury and opposition benches.

***i. Promulgating laws to provide amnesty to the corrupt***

The National Reconciliation Ordinance (NRO) enacted by President Musharraf on October 5, 2007, stands as a pivotal moment in Pakistan's anti-corruption landscape. This legislation granted immunity to politicians and bureaucrats accused of corruption, money laundering, and other offenses, spanning from January 1, 1986, to October 12, 1999. This period marked the time between two martial law regimes in Pakistan. It significantly undermined anti-corruption efforts, leading to a legitimacy crisis in Pakistan's history.

On December 16, 2009, the Supreme Court of Pakistan (SCP) declared the NRO unconstitutional and without lawful authority, significantly undermining its legitimacy. Despite this, approximately eight thousand individuals had already benefited from its provisions. During subsequent governments, investigations against ruling coalition leaders were halted, and the only arrests were prompted by *suo moto* notices by Chief Justice of Pakistan (CJP). This pattern persisted in subsequent regimes, with convictions remaining scarce.

The NRO's controversial nature weakened the NAO's authority (Ahmed, 2013) and cast doubt on Pakistan's commitment to anti-corruption, especially as it was enacted shortly after ratifying the UNCAC (Transparency International Pakistan, 2014, p. 161). The NRO effectively legalized corrupt practices, benefiting politicians, bureaucrats, and even armed services personnel accused of corruption. The NRO significantly impeded accountability efforts, fostering political settlements and exacerbating legitimacy crises within Pakistan's anti-corruption endeavours.

## **ii. Amendments in accountability laws**

Lughmani *et al.* (2022) discussed the amendments made in the NAO in detail. In 2016, a bill for The National Accountability (Amendment) Act sought to limit NAB's jurisdiction to federal government departments and recommended establishing provincial accountability bureaus. The plea-bargaining process was criticized for its fairness in this bill. In 2017, the President promulgated the National Accountability (Amendment) Ordinance to declare VR and plea bargain beneficiaries (public officials and politicians) as disqualified for life and mandated NAB to the transfer of amount deposited under Sub-Section (2) to the Federal or provincial governments or the concerned body or institution within 30 days of such deposit. The National Accountability (Amendment) Act 2019 proposed amendments and omissions in various sections of NAO 1999. In the statement of objects and reasons [draft bill], the jurisdiction regarding limits was discussed including alignment of the concept of VR and plea bargain with modern jurisprudence of the Superior Courts etc.

On September 15, 2023, CJP while heading a three-judge bench rejected the controversial NAB law. The law had previously granted immunity to political figures in major corruption cases under the coalition government through National Accountability (Second Amendment) Bill 2022. The verdict made the petition against NAB amendments valid, reopening closed corruption cases below Rs. 500 million. It declared the plea bargain clause and *benami* property clauses illegal. The ruling impacted several prominent political figures, whose cases got reopened.

## **3. Increasing use of settlements in the context of NAB investigations**

It has been argued that NAO 1999 has distinct strategies to control corruption (Lughmani *et al.* 2022). In this regard, Lughmani (2022) mentioned Sections 10(a) and 25 of the Ordinance, where the former considers a corrupt practice a very serious offence with the imposition of harsh punishment. At the same time, the later relieves the accused completely (with lenient or no punishment) on returning a portion of stolen money, thus looking at a corrupt act as a minor crime. Under President General Musharraf's rule, most cases were prosecuted under section 10(a), with the highest trial conviction rate in Pakistan's history, which declined by using section 25, while observing changes in the power corridors. Such dependence on political pressures caused irreparable damage to the overall deterrence (Ali, 2018). Figure 1 shows the percentage of organizational settlements made under different regimes from 1999 till 2018. It is obvious from the chart that with the change of each regime percentage of settlements is going towards a higher trend.

## Comparison of Regime-wise Settlements

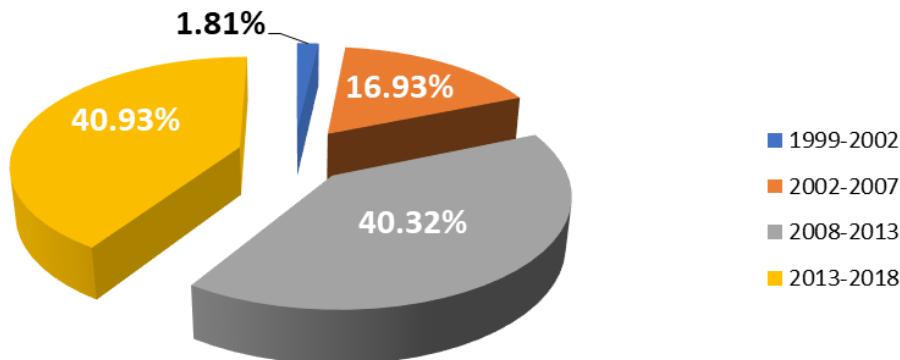


Figure 1: Comparison of settlements under different regimes (Ali, 2018)

If we consider one perspective, the increasing use of plea bargains in the context of NAB investigations marks a strategic shift in addressing corruption and accountability in Pakistan. Plea bargains have become a prominent tool for NAB, allowing for the resolution of cases through negotiated agreements. This approach not only expedites legal proceedings but also aids in recovering ill-gotten gains (Lughmani, 2022). While defending the plea bargain clause, the NAB contends that the 'shaming factor' deters corruption, but in the same breath, the accused opting VR surrenders just a fraction of looted assets, not only skipping conviction but also avoids any stigma of being 'the corrupt', thus strengthening the belief in the power of looted wealth (Samad, 2008).

The increasing reliance on plea bargains raises important questions about transparency, fairness, and the potential for misuse. Striking a balance between expediency and the principles of justice is crucial for maintaining public trust in the accountability process. As this trend continues, it is imperative to closely examine the impact of plea bargains on the overall effectiveness and integrity of NAB investigations.

### 4. Glimpses of pros and cons of [organizational] settlements

In an international scenario, settlements in accountability systems offer several advantages and disadvantages. Below table provides a comprehensive look at both sides.

Table 2: Pros and Cons of Accountability Settlements

Pros	Efficiency in Case Resolution	Financial Recovery	Deterrence	Flexibility	Encourages Cooperation
Outcomes	Time-Saving Resource Allocation	Immediate Restitution Asset Recovery	Preventive Measure Partial Accountability	Tailored Agreements Victim Compensation	Incentivizes Admissions Facilitates Investigations
Cons	Perceived Leniency	Inconsistent Application	Risk of Coercion	Partial Accountability	Financial Focus
Outcomes	Reduced Penalties Public Perception	Discretionary Use Selective Enforcement	Pressure on Accused Legal and Ethical Concerns	Incomplete Justice Insufficient Deterrence	Monetary Emphasis Short-Term Gain

In case of an underdeveloped country like Pakistan, there are divergent opinions or common perception about the provision of the settlements. Based on the international parameters and local context, positives and negative aspects of settlements are explained in the following sub-sections.

### a. Positives

Settlements offer several advantages, including the rapid recovery of misappropriated funds, forfeiture of assets obtained illegally, reduction of case backlogs, and encouragement of cooperation from offenders. It reduces the cases burden and expedite the resolution of cases when position of prosecution is weak (Holten & Lamar, 1991) especially in White-Collar crimes. It saved the resources by reducing the cost on trials. Here both the parties as risk of potential defeat and take some benefit (Holten & Lamar, 1991). The victims of big scams simply need compensation and do not care whether the culprit is hanged or not. In the absence of VR and plea bargain, a weaker prosecution cannot get that money back from the culprits (Lughmani, 2022). It deters the potential offenders making a fear of swift return of the ill-gotten funds or assets. Here the offenders cannot entirely escape the consequences of their acts and face at least some form of accountability making a partial conviction. In exchange of reduced penalties, offenders taking it as an incentive, willingly admit their guilt and even provide details helpful for further investigations.

It is a common perception that NAB retains a percentage of money or assets recovered during plea bargain. The NAB considers this perception as untrue mentioning that there are no receipts for the bribes and the media exaggerates while defining the amount or simply uses common jargon like '*'karoron ka ghabban'* [trans. from Urdu: Embezzlement of millions of rupees]. When NAB conducts a regular investigation, it detects evidence to make calculations. The NAB cannot reduce the amount once determined. The

Chairman NAB has the authority to impose up to fifteen percent service charges. That will go into NAB's account, distributed as a bonus among employees (Lughmani, 2022).

People ask NAB about the beneficiaries of the process, recovery percentage and amount deposited in the treasury which is kept confidential. Secrecy in plea bargaining infringes on the constitutional right to information, potentially impacting citizens' lives and the economic condition of the country (Syed, 2020). In order to build public trust such figures on white-collar crime cases should be available online. Senior public officials are in favour of plea bargain but opposed the presence of VR as the culprit becomes innocent by simply giving some amount back in the later (Lughmani, 2022). There are cases that people entered into VR multiple times by paying millions of rupees and due to internal support, astonishingly; they got promoted to next grades in service. Here, Lughmani (2022) has a difference of opinion:

“When NAB enters into plea bargain with someone, they do not have sufficient evidence against him which could help in conviction. Secondly, even after a conviction, there are no chances to get money back. That is why this section of plea bargain is included to extract looted money from the corrupt and deposit same in government treasury”. (p. 245)

He also shared an interesting incident regarding plea bargain:

“NAB demanded three hundred million rupees from a culprit willing to pay eighty million rupees. The deal could not be finalized, and the culprit got out on bail and went abroad. What does NAB get? The process is so cumbersome that if you are stuck at NAB, rest assured that it will take ten years at the accountability court, High Court and Supreme Court. If a person is of an age of sixty years, he will get expired in ten years. There is no section fitting on a dead person, so the rest of the deceased's family will enjoy it. So you should have accepted what he was offering. He could have been a convict, too; that is why I say it is a good concept, saving A-GB's and the courts' time, efforts and money, and the government can finally get something back. People call it a wrong concept without any reason”. (Lughmani, 2022, p. 246) (Emphasis added)

There are questions on how a corrupt public official could be spared by just receiving a portion of the 'looted money'. It could be an issue of applicability of a good concept prevailing in America and European countries. When an official is paying, he/she pleads guilty as Voluntary Return occurs at the inquiry stage when a person pays back the looted money and is free to go

without conviction. When the inquiry goes into investigation, if the official is willing to pay the looted money, it will be called a plea bargain, and the person is assumed to be convicted. This bargain could only keep him out of jail when he is convicted. Otherwise, all the points are those which apply to a convict. He cannot get a loan or hold any public office for 10 years and his official job, pension and benefits gone for good (Lughmani, 2022).

### **b. Shortcomings**

The guilty plea system as called as ‘system of negotiated justice’ does have certain disadvantages experienced in its implementation as mentioned in “The plea-bargaining Controversy” by Smith (1987). A-GBs have a capacity issue in implementing the plea-bargaining procedure (Nelson and Santoso, 2020). Critics argue that the deterrent effect of punishment gets undermined (Rauxloh, 2012) by influential perpetrators to evade legal sanctions especially the habitual ones to negotiate more favourable, lighter sentences being insufficient punishment for the white-collar crimes. It is also considered being a coercive process in policy debate (Alschuler, 1979; Smith, 1987; Kishan, 2018) raising a challenge to the right to a fair hearing.

A plea bargain agreement in Pakistan has many shortcomings in its present form, like *‘providing a way out to corrupt’* and *‘coercing the innocent into an agreement’*. Pakistan adopted ‘plea bargain’ from international best practices, having merits and demerits in different policy contexts. There is a danger that sometimes a good guy gets stuck who otherwise would be acquitted in case of a contest. Many people in Pakistan accept this option due to their family, especially to save children’s engagements in eastern culture, also fearing arrests, jail, and non-availability of the option of bail. It has negative impacts too, as even on acquittal after payment the stigma is there and he/ she will be pointed out as ‘*NAB Zadda*’ (Lughmani and Abdullah, 2023).

The idea of Plea Bargain would not look fair in both cases; when some mishap or corruption is proved on a person or when the person is innocent and feels pressured to accept settlements. In the first case he should be punished as per prevailing laws while in the later there is a potential of coercion. It seems unfair to bargain with a culprit, meaning there is a lack of trust in the judicial system in sentencing the corrupt or a lack of capacity in the investigation to dig out the evidence. It also undermines the public trust on the system being perceived as too lenient on corruption. Plea bargaining is undesirable when the rules of public policy are violated. Here, Lughmani (2022) remarked:

“...VR and PB must not prevail because getting thirty rupees out of looted hundred rupees means a direct loss of seventy rupees to the nation. If it is in the hands of a single person, why is not there a one-hundred-percent chance of recovery or punishment? For financial corruption, the punishment should be served, whatever it is, with full

recovery. It is the nation's money and should be recovered by any means. You may abolish the physical punishment, but the looted money should be recovered" (p. 245).

The provision of VR was considered to be violative of Article 25 of the Constitution, which is about "equality of the citizens". It was debated that at least an exemplary punishment should be given to the wrongdoer, a lesson learnt for all. There are times when innocent public officials avoided VR and opted for jail instead of being convicted as corrupt. Though VR saves a person from stigma and court cases etc., but there were circumstances when just to save respect and dignity, innocent officials have to sell their assets at nominal prices to avail VR. This way, settlements do have opportunity costs.

There is a case of vagueness or ambiguity in the interpretation of the accountability law itself. People/public officials were put into darkness regarding the consequences of VR. The accused officials instead of travelling down to NAB offices in capital cities, spending thousands of rupees on boarding and lodging or getting humiliated thought VR could give them freedom for all hassles. When Supreme Court asked to start departmental inquiries against the officials who did VR, these people entered into a problem that opted for VR just to get their neck out of it being innocent in the first place. Lughmani (2022) shared his opinion:

"There is an issue of the wrong interpretation of the NAO. The NAB forced people to enter into VR, being the safest way out of the blame. Later Supreme Court passed a judgement to remove such officers from the service since they have pleaded guilty by returning the amount, so they are not eligible to be public officials. It is constantly confusing for public sector officials". (p. 245)

The conviction rate at Anti-Corruption Establishments (ACE) and NAB is zero and five percent, respectively, which should be considered by the authorities. Usually, people pay in case the amount is small just to get them out of the mess. They opt for a plea bargain to avoid the huge cost of hiring a lawyer. This act of theirs made it worst for the others making things suspicious. The prosecutorial discretion, extrajudicial nature (Bar-Gill & Ayal, 2006) and selective enforcement of the settlements raise concerns about fairness and equity of the process. As offenders are not held accountable for their actions it gives a sense of incomplete justice where lighter penalties decrease deterrence. It seems that there is an overemphasis on financial recovery deliberately neglecting institutional reforms and long-term systematic changes.

## **5. Institutionalized corruption: The Metaphor of 'dukaan' [Shop]**

The system of negotiated justice does have the probability of corrupt practices. There might be a role of laws and the legal framework running the anti-graft bodies, including the NAO, in spreading corruption. As mentioned in the previous paragraphs, one possible option is the settlement system, i.e., the plea bargain and VR. The lack of institutional autonomy within the NAB, known to habitual offenders, creates a situation where the benefits to an offender outweigh the associated costs. It is important to discuss this aspect so that the missing link could also come to light when discussing the anti-corruption regime. Ali (2020) questions the role of the NAO in the NAB's shortcomings. He suggests that certain sections were selectively applied based on the incumbent government's will, using the agency as a tool to maintain political power. This practice has inflicted irreparable damage to the organization's deterrent reputation.

The 'habitual' or 'systemically' corrupt officials are not afraid of the current accountability system. NAB has (actually) started a '*dukaan*' [trans. from Urdu: commercial shop] to bargain or started collecting '*chanda*' [trans. from Urdu: charity funds]. It has been observed that a person is informed about his involvement in some suspicious matter having a worth of millions of rupees. Now the calculations are made to get extortion money in lieu of clearing his name. The revelation emerged during personal hearings mandated by the Supreme Court, aimed at understanding the reasons behind the benefitting of fifteen hundred individuals in Khyber Pakhtunkhwa from VR. Notably, a particular revenue staff member paid only five hundred rupees as part of the VR scheme. The NAB came down to '*dukaandarri*' [trans. from Urdu: running a commercial business] (Lughmani, 2022).

These bodies actually guide the corrupt person in a way that they wait for the best moment unless the culprit has built property through illegal money. Then they start probing to blackmail in the absence of a mechanism for their own accountability. In such like circumstance, should we presume everybody at A-GBs as an angel and not a blackmailer? People are afraid to talk about the actual financial, moral and ethical corruption of A-GBs just to avoid an anonymous letter containing any bullshit, taking at least a couple of years for the accused to clear his name after an arrest. It means either you stay silent or bear the consequences. This stance gets a support by the fact that every police officer above the rank of Superintendent wants to become the director of Anti-Corruption Establishment (ACE) just to enjoy hidden benefits. It is evident that working departments keep ACE's share in the commission. There were stories that senior officers on deputation in A-GBs were arrested and millions of rupees were recovered. A-GB is the most 'lucrative' posting in the system. The persons responsible for detecting and curbing corruption are involved in corrupt practices. They arrest a person not to provide benefit to the exchequer;

instead, they get the benefit out of it. The matter is set aside, just by paying something.

Authors came across a joke in the provincial civil secretariat about the formation of the ACE which elaborates that now they (government) have to form another department to check ACE's corruption. You formed A-GBs to curb corruption; they instead are getting fed. If you form another institute above it, then they will start feeding it. A-GBs threaten people to start an inquiry and settle the same on getting something in return. They are paving the way for corruption, keeping contacts and '*relations*' with the complainants, moving applications against 'big fish' through their front men and then get a deal to tear away complaints and settle the matter. In this regard, Lughmani (2022) rendered the Plea Bargain as a cause of corruption:

"The biggest corruption is that they enter into 'plea bargain' with a culprit. ...Just deposit a fixed amount against billions, and you are clean. There is presumed commission of the NAB's staff in the case of plea bargain. If someone wants to commit corruption, then it (plea bargain) accelerates corruption instead of curtailing it.... if he got saved with a big chunk at his disposal, then it is not a big deal". (p. 255)

The concept offers corrupt individuals perverse incentives to act in cases with *prima facie* evidence and a high likelihood of conviction. The Supreme Court of Pakistan (SCP) labelled it "institutionalized corruption" for legitimizing corrupt practices (Hussain, 2018; Lughmani, 2022). People are busy there in same corrupt practices as they know the estimate what they have to pay to NAB. It is in the psyche and '*jibilat*' (instincts) of the 'habitual corrupt' to take risks in lieu of huge profit margins. (Imagine)...the punishment of beheading could not stop the smuggling of drugs to Saudi Arabia. While mentioning plea bargain as a motivating factor to commit corruption, Lughmani (2022) added:

"All these things (VR and PB) are the motivating factors to commit corruption. If I am caught for corruption, I will give NAB some percentage under plea bargain and enjoy the rest of the amount. It means NAB is motivating me to commit corruption, to earn so much that if another dishonest comes after me.... The person who does not have the money to pay gets the '*ragrhah*' (brunts) in A-GB". (p. 255)

The most important concern is the A-GBs' accountability. There is possible wickedness 'inside' on the part of the investigation officer during VR and PB as he can report on his own will. The A-GBs are believed to be tainted with corruption (Samad, 2008) and political meddling. Literature reveals that anti-corruption initiatives have been involved in the corrupt networks instead

of battling corruption (Ittner, 2009; Mungiu-Pippidi, 2006). Officials of Federal Investigation Agency (FIA) implicated in human trafficking were beneficiaries of the NRO, leading to their subsequent dismissal as per the Supreme Court of Pakistan's ruling on the matter (Aziz & Bakhtiar, 2012). Anti-corruption agencies (ACAs) in Pakistan are described as part of an "illicit rent-generating apparatus," fostering endemic corruption (Aziz & Bakhtiar, 2012). NAB retains a percentage of recovered funds as a service charge, creating a vested interest in the process. The agency's out-of-court settlements are seen as corrupt practices that reduce the deterrence effect by colluding with offenders to avoid imprisonment (NACS, 2002). The lack of transparency in determining plea amounts has been criticized (Samad, 2008). Complaints allege NAB engages in kickbacks and under-the-table deals to manipulate political allegiances, a practice criticized by the apex courts (Khan *et al.*, 2004). In 2016, the Supreme Court barred NAB from accepting voluntary returns (VR) through a *suo moto* notice. In a 2017 judgment, the Court held that NAB facilitated corruption by promoting its VR scheme (Lughmani *et al.*, 2023).

## 6. The notion of 'Coercion' in accountability settlements

The contemporary literature lacks mitigating the element of coercion in accountability settlements. The judges in the International Criminal Tribunal of Yugoslavia devise the minimum pre-conditions for a plea bargain as mentioned in the table below.

Table 3: Minimum Pre-Conditions for a Plea Bargain

#	Pre-conditions
1	Must be voluntary to be made by an accused having sound mind
2	Must be informed with accused having the knowledge of charge levied upon
3	Must not be vague

Source: Scharf (2004, pp. 1076–1078)

The settlement provisions of the NAO also have faced significant criticism. Lawmakers from opposition parties, while reviewing Section 25 of the NAO, argued that the Ordinance was misused for political re-engineering. They claimed that the establishment of the EC and NAB was intended for political manipulation, with NAB allegedly harassing politicians to coerce them into joining a state-backed political party. Successive governments have reportedly used NAB as a tool for political purposes (Lughmani, 2022). This has led to concerns about victimization within these institutions. A notable example is the Khyber Pakhtunkhwa *Ehtesab* Commission (KPEC), where allegations of victimization were substantiated as courts later exonerated individuals. Critics argue this practice contradicts the principle of justice, punishing many innocents to catch a single culprit (Lughmani, 2022).

It was discussed that in certain circumstances, the accused were pressurized to get into a plea bargain who accepted it out of fear to save their dignity; otherwise, there were chances for acquittal in case they had opted for contesting the lawsuit. The apex court barred the Chairman NAB or the Governor State Bank of Pakistan from using their position and power to coerce the parties involved in discussions to settle. It is admitted that settlements being done at the investigation or inquiry stage greatly reduce the burden upon courts. Still, such compromises should be subject to the ultimate approval of the Accountability Court. Supreme Court mandated that Section 25 of the Ordinance be properly amended.

As discussed above, the ‘habitual corrupt’ people are not frightened, having the clarity of mind and money to enter into a plea bargain (Lughmani & Abdullah, 2023). Innocent person feels most deterred that his only asset, i.e., the respect, will get auctioned. The public sector has become too complex, having multiple accountabilities. Lughmani (2022) highlighted several limitations of public sector departments in implementing accountability measures, including:

“Departments do not have any other competency, neither recovery nor the plea bargain except writing to the ACE, which itself is not that much an effective body and is involved in bribery. Independent bodies are required for the mega corruption cases, but these should be transparent with no ‘Pick and Choose’ policy to arrest someone and leave another on the same issue. These should not be ‘selective’ and follow the uniform application of the law” (p. 221).

He further elaborated:

“There were also differences in the context as there was no concept of VR and Plea Bargain in *Ehtesab* Commission (EC). Then EC had no widespread applicability while having jurisdiction to the provincial public officials only. At the same time, the NAB laws apply to every Pakistani even on a ‘*rehrhi waala*’ [trans. from Urdu: street vendor]” (Lughmani, 2022, p. 226).

A-GBs harass public officials to get statements and force them to enter into agreements like VR (abolished by SC) or the plea bargain. Even the higher courts mentioned such happenings in their orders. The discretionary powers exercised by the Chairman NAB along with the lack of independent prosecution, make the use of the settlement option more risky and complicated while increasing the risk of misuse by coercing innocent individuals into pleading guilty (Khawar, 2019).

The NAB law has become a sore point for the bureaucracy, i.e., the blurred line between corruption and irregularities (unless deliberate having material benefit) where this ambiguity has made bureaucrats subject to the whims of NAB officials. The high-handedness of the A-GBs with the suspects/ accused and violations of the fundamental rights of the citizens in the hands of these bodies was discussed in contemporary literature. Hussain (2018) elaborates that people are administered with shameful treatment while kept detained for months to break nerves to extract a confession and make them enter into a plea bargain. It demonstrates how the NAB operates outside the realm of the Rule of Law in Pakistan, without being subject to accountability for the blood on the agency's hands (Kamran, 2020) as people took their lives just to avoid A-GBs' maltreatment and becoming a part of character assassination campaigns.

## **7. Discussion**

Settlements in accountability systems provide a practical approach to managing corruption cases, balancing the need for efficient resolution and financial recovery with the demand for justice and deterrence. However, their success depends on transparent, consistent application and careful oversight to ensure they do not undermine public trust or allow offenders to escape full accountability. Internationally, this provision is used to clear case backlogs and save the cost of prosecution. Still, Pakistan is creating a negative public perception due to its wrong usage of the A-GB.

The investigation and prosecution at A-GBs in Pakistan is not independent as well as lacks international standards. The fear of coercion while dealing white collar crimes is always there. There are equal chances that an innocent facing investigation might get forced to enter into a settlement in an otherwise weak case making him/ her a convict in the eyes of law as well as the public at large. It is quite costly to get an access to justice especially in white collar crimes so on one hand a privileged offender can easily bear the cost of an experienced learned counsel while on the other hand same cannot be afforded be a common innocent person. This way the settlement could possibly be made for the former in a better mode without getting any stigmatization.

The presence of both plea bargain and VR was debatable for both should not prevail. Now with the ban on VR by the apex court, NAB still can use the option of plea bargain to let a person go with clean hands even with sufficient evidence. In our view the A-GB can frame charges against someone to get him convicted; otherwise, in absence of sufficient evidence, they should let him go as discussed by apex court in famous '*Asfandyar Wali*' case".

However, in current circumstances, while keeping in view the investigative capacity of A-GBs and nature of the white-collar crimes, it would be quite unwise to eliminate the system of plea bargain as it will definitely overwhelm the judicial system but reforms are very much needed to limit discretion in an

extra-judicial settlement. A standard needs to be set for all offenders which will definitely prevent the ones with an elite status to exploit or manipulate the justice system and evade due punishment. This will definitely create deterrence for the potential even habitual white-collar offenders.

As NAB continues to navigate the evolving landscape of accountability, the increasing reliance on plea bargains prompts a critical examination of their efficacy and ethical implications within the Pakistani legal framework. Further research and analysis are needed to comprehensively understand the impact of this trend on the broader goals of accountability and justice in the country.

## **8. Conclusion**

In conclusion, tackling corruption in Pakistan is a complex and long-term challenge that requires a multifaceted approach. Reforms in governance, legal frameworks, and cultural attitudes towards corruption are essential measures. Moreover, strengthening the capacity and independence of anti-corruption agencies and ensuring political will to fight corruption are crucial steps toward mitigating this pervasive issue.

While considering the weaknesses, the parliament should review the provision of a plea bargain to implement it only through an independent prosecution to help create a transparent accountability regime. Plea bargaining can add to cost-effectiveness by streamlining monetary recoveries and minimizing court time required for detailed litigation. The accused will also be benefitted by getting involved in the case resolution knowing the risks and rewards of the cooperation. A-GB needs to establish rules of business to gain the public trust in the systems. Regularly updating public records of settlements, publishing detailed plea bargain agreements, and periodically reviewing guidelines are essential measures for reinforcing the credibility of plea bargains and maximizing their deterrent effect.

The discretionary powers related to settlement as vested in a single designation should be curtailed immediately. The option of plea bargain should only be exercised for the approver(s) getting his/her confession to pave the ways to prosecute the main accused in corruption. The high-handedness of the A-GBs with the suspects/ accused while coercing him/ her to enter into settlements should not be tolerated and immediately investigated to keep trust of the people intact with the prevailing systems.

NAB should act fairly and transparently in plea-bargaining, ensuring financial deals reflect the seriousness of the offense without consenting to lesser amounts than due. An independent body within NAB should decide plea terms on a case-by-case basis, preventing unilateral decisions. Comprehensive rules valuing legal rights should be established, and official letters should

initiate negotiations. Coercion must be avoided, and transparency maintained with detailed records and clear communication. All plea agreements must be written, signed by both parties, and presented to the court for approval.

The policy makers in consultation with stakeholders including researchers, anti-corruption experts, civil society and national and provincial bar councils need to suggest rather bring in reforms addressing system disparities and develop guidelines for the process to cater white-collar crimes in a justifiable manner. Reforms should also focus on not to keep the identities of the offenders/ convicts and the details of the bargain confidential from general public to make the process transparent. This way the offender/ convicts cannot regain their social status after getting into a plea bargain which will aid in creating deterrence in future.

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**V. Tables, Figures, and Charts:** All tables, figures or charts must be inserted in the body of the manuscripts with proper captions and within the margins and must follow the APA 6<sup>th</sup> in terms of caption, numbering, arrows, columns, etc.

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Example for articles (APA-6th):

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Ali, S., & Javed, A. (2015). Human resource management practices and the challenges for HR managers in an overwhelmingly uncertain labour market. *Journal of Management*, 18(2), 29-45.

Example for books:

Aswathappa, K. (2008). *Human Resource Management: Text and Cases*. Delhi: Tata McGraw-Hill Publishing Com.

Example for chapter in edited book:

Arthur, M. B., & Rousseau, D. M. (1996). The boundaryless career as a new employment principle. In M. B. Arthur & D. M. Rousseau (Eds.), *The Boundaryless Career* (pp. 3- 20). New York: Oxford University Press.

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