Unraveling the Nexus of Knowledge-Based Human Resource Management Practices and Learning Climate: A Pathway to Organizational Resilience and Innovation Performance

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ABSTRACT

The present research investigates the influence of knowledge-based human resource management practices on organizational resilience among hospitality professionals. The study further examines the impact of organizational resilience on hospitality professionals' innovation performance. Additionally, it investigates the mediating role of the learning climate between knowledge-based human resource management practices and organizational resilience. The study employs multiple sampling techniques, including purposive and snowball methods, to collect data from hospitality professionals working in three-, four-, and five-star hotels in Pakistan. A total of 219 samples were collected. Partial Least Squares Structural Equation Modeling (PLS-SEM), using SmartPLS 4.0, is employed to test the proposed hypotheses. The results indicate that all knowledge-based human resource management practices (e.g., knowledge-based training, knowledge-based performance assessment, and knowledge-based compensation) have a positive influence on hospitality professionals' perceptions of the learning climate in the organization, except for knowledge-based recruitment. The learning climate is found to be a predictor of organizational resilience, which in turn increases hospitality professionals' innovation performance. The findings also confirm that the learning climate mediates the relationship between knowledge-based human resource management practices and organizational resilience. To date, limited research has been conducted to confirm whether and how knowledge-based human resource management practices influence the learning climate and organizational resilience. Notably, the mediating role of the learning climate remains unexplored. This study addresses these gaps and contributes to the literature on human resource management and organizational resilience.

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ABBREVIATIONS AND ACRONYMS

AVE	Average Variance Extract
CI LL	Confidence Interval Lower Level
CI UL	Confidence Interval Upper Level
CR	Composite Reliability
HTMT	Heterotrait-Monotrait Ratio
IP	Innovation Performance
KBC	Knowledge-based Compensation
KBPA	Knowledge-based Performance Assessment
KBR	Knowledge-based Recruitment
KBT	Knowledge-based Training
KBHRMPs	Knowledge-based Human Resource Management Practices
LC	Learning Climate
OR	Organizational Resilience
PLS-SEM	Partial Least Squares-Structural Equation Modeling
VIF	Variance Inflation Factor

SYMBOLS

β	Beta
f^2	Effect Size
ρ	Statistical Significance
R^2	Coefficient of Determination

CHAPTER 1

INTRODUCTION

1.0 BACKGROUND OF THE STUDY

The chaotic and complex surroundings necessitate the critical need for organizations to develop resilience. For instance, the sudden outbreak of the corona virus which led to an international health crisis sent substantial shockwaves across the global economy, significantly impacting business operations and growth (Li & Lin, 2024). This indicates that organizations were not prepared for an unforeseen catastrophe. Therefore, it is paramount for firms to attain resilience, so they are able to cope with unexpected scenarios such as Covid-19. It is more urgent than ever to build resilience because a survey by Infinite Blue (2024) indicated responses from resilience professionals where majority believed economic downturn or market disruptions to be the greatest threat, natural disasters were believed to be the second greatest cause of concern, followed by supply chain disruptions.

Research & academic practice have indicated that resilience is a preferred attribute of a firm (Pacheco et al., 2023). Research on organizations has demonstrated that resilience is a firm's ability to revitalize itself over time through innovation (Carvalho et al., 2016). It is the organization's capacity to withstand unforeseen scenarios, effectively aligning strategies, operations, management systems, and governance structures to make informed decisions (Carvalho et al., 2016). Research on organizational resilience concurs that there is a requirement for an adaptive and holistic management approach due to the uncertainty and complexity of business activities (Andersson et al., 2019; Lengnick-Hall et al., 2011). The demanding and dynamic business landscape mandates that firms strengthen their resilience, flexibility, adaptability, and innovation to not only withstand the external pressures but also thrive (Liu et al., 2019). Organizations must be in a position to navigate external adversities which challenge their existence such as extreme weather events, occupational mishaps, acts of terror, worldwide disease, and other black swan events (Williams et al., 2017; Xie et al., 2022).

Certain organizations are not only able to endure unprecedented occurrences but flourish as well. However, some enterprises are unable to persevere in extreme conditions. Previous

research suggests that resilient organizations are likely to outperform organizations that are non-resilient (Beuren et al., 2022). This is because resilient organizations are positioned to respond effectively to environmental changes while also facilitating the development of various organizational capabilities (Beuren et al., 2022). Furthermore, resilience enables organizations to cope with challenging circumstances and flourish during turbulent times (Beuren et al., 2022). Therefore, it becomes instrumental to investigate the underlying mechanism under which organizations can thrive. This is becoming progressively vital as the conditions surroundings the organizations have become increasingly volatile - the economic crisis in Pakistan is deemed better only from Afghanistan in the region (Anees, 2023), the current political tumult is also contributing to the economic uncertainty (Atlantic Council, 2022), and the recent floods in Pakistan has been considered one of the costliest environmental disasters over the last decade (Reuters, 2022).

The dynamic business terrain necessitates that organizations build resilience. To achieve that, organizations must demonstrate the capacity to generate innovative solutions (Do et al., 2022). The ability of firms to undergo transformative change and renewal rely immensely on innovation as it allows the organization to generate innovative strategies to address pressing issues and develop valuable alliances during and after an external crisis (Vasi et al., 2024). It was suggested that innovation is the key for an organization to cope with uncertainty and turbulence (Bustinza et al., 2019). To generate return on investments, organizations resort to innovative means which helps them in enhancing resilience in unpredictable times (Richtnér & Löfsten, 2014). Research on organizations has demonstrated that resilience is organizations renewing itself through innovative means (Carvalho et al., 2016) i.e., through effectively aligning strategies, operations, management systems, and governance structure to make informed decisions (Carvalho et al., 2016; Starr et al., 2003).

A learning climate can serve as a key driver to strengthen organizational resilience. A learning climate has been deemed important for organizations in the rapidly evolving global economy (Eraut, 2004; Kyndt et al., 2009; Nikolova et al., 2014). This insinuates that it is necessary for employees to attain skills to survive the changing business landscape (Nikolova et al., 2014). Learning climate provides employees with an environment where they can seek feedback, engage in meaningful interactions, foster open communication channels, embrace constructive conflict, and cultivate a culture of innovation (Ouerdian et al., 2019). It also improves employees' well-being and empathy (Lases et al., 2019). Moreover, an organization's learning climate fosters continuous learning and cultivates an environment that

encourages all organizational members to learn from both their successes and failures, motivating them to accept learning challenges and handle uncertainties effectively (Putz et al., 2013). Thus, the learning climate is essential for strengthening an organization's resilience level. Nonetheless, learning climates are often an outcome of an organization's effective management of its human resources functions.

Knowledge-based human resource management practices enhance the learning climate of the organization, as these practices necessitate the sharing of knowledge (Ouerdian et al., 2019). These practices are essential components of long-term strategic planning, which are rooted in traditional human resource management practices but are designed particularly to ensure a smooth flow of knowledge (Al-Qaralleh & Atan, 2022). Knowledge-based human resource management practices refer to practices aimed at improving the flow of knowledge acquisition, assimilation, transformation, and exchange competencies within the organization (Donate &Pablo, 2015). Knowledge-based human resource management practices also influence the value and uniqueness of employees' knowledge, skills, abilities, and other characteristics (KSAOs), thereby enhancing an organization's human capital (Ouerdian et al., 2019), and have direct and indirect impacts on knowledge sharing and innovative outcomes (Singh et al., 2021). These practices determine the foundation of knowledge creation, argue that the skills of the employees must be regularly enhanced, influences employees conduct, and are drivers for motivation (Noopur & Dhar, 2019). This cultivates an environment of collaboration, cooperation, and interactive relationships which is pivotal in merging individual knowledge to create organizational knowledge (Chen & Huang, 2007). Despite their importance and positive outcomes, little to no research has been conducted to investigate whether and how knowledge-based human resource management practices directly or indirectly influence organizational resilience.

The current study is timely as it focuses on organizational resilience whose importance cannot be overstated. It is essential to develop in the current dynamic and challenging economic conditions of Pakistan. Organizational resilience is the key component which will not only ensure the survival of the firm but will also enable it to perform innovatively. It serves as a foundation in achieving competitive advantage over the other firms. This is especially true for the hotel industry of Pakistan given the sector's predisposition to external disruptions such as economic challenges and political upheavals. Since, Pakistan has a substantial number of tourists, it is important that hotels are able to provide a memorable

guest experience and it is only possible if the organization can survive and thrive in the dynamic landscape.

1.1 HOSPITALITY AND TOURISM SECTOR OF PAKISTAN

The service sector of Pakistan contributes 1.5 times more than the aggregate contribution of agriculture and industry sector. For the year 2021, the service sector was a significant driver for economic growth. It contributed 58% to the overall economy out of which the wholesale & retail trade contributed (31.3%), transport storage & communication contributed (18.0%), and real estate activities contributed (9.8%) (PACRA, 2022). The largest contributor was labeled as “Other Service Activities” (36.4%) out of which the hotel and restaurant industry contributed 6% (PACRA, 2022). The report further outlines that the hotel industry is significantly influenced by the tourism industry.

However, during Covid-19, tourism within the country dropped, from 5.7% of the country’s GDP to 4.4% in 2020 (Nazir, 2021). This indicates that the hospitality industry was unable to cope with the sudden outbreak of the novel virus. While the COVID-19 outbreak subsided, World Bank Group (2023) revealed that Pakistan's tourism activity has dropped significantly from March 2022 (111.6) to March 2023 (82.6), which is the lowest amongst South Asian countries outlined by the report. This drop can be attributed to the rise in inflation (38%) which is highest ever recorded consumer price index (Khan, 2023). Additionally, the flood catastrophe caused a $30 billion loss in the tourism industry (Mehsud, 2022). It was further reported that it may take up to 1 year to make the industry functional again (Mehsud, 2022).

The hotel industry has a significant influence on the growth and development of Pakistan (Mordor Intelligence, 2022). It is forecasted that the revenues in the hotel sector of Pakistan will reach US$ 1.21bn in 2023 (Statista, 2023). Additionally, it is predicted that the hotel industry will generate revenue at yearly rate of 6.52% (Statista, 2023). Furthermore, it has also been highlighted that by 2027, the mode of revenue generation will be mainly through online means. It is expected that 69% of revenue will be generated through online sales (Statista, 2023). This also implies that the hotel industry will have to face a digital transformation to adapt to the new trends.

However, the past is an indication that such growth can be hindered as a result of uncertainty in the external environment. For instance, during the 2008 economic crises of Pakistan, the

hotel industry suffered, and fewer rooms were occupied by the guests (Hashim et al., 2016). Moreover, the terrorist attack on Marriott Islamabad led to a reduction in nationals and foreigners from visiting the hotel which caused a decrease in the occupancy of rooms (Hashim et al., 2016). Extrapolating from the past, the hotel industry's growth can be hindered as a result of the current economic and political situation of Pakistan. Therefore, it is crucial that firms understand how they can build resilience. It will also help them comprehend the approaches they can undertake to ensure innovation even in times of turbulence.

1.2 RESEARCH GAPS

1.2.1 Gap 1: Learning climate as a mediator

The present study addresses three key gaps in existing literature, thus contributing to the existing body of knowledge. First, this study is primarily concerned with knowledge-based human resource management practices and their indirect influence on organizational resilience. As such, this study determines how knowledge-based human resource management practices can enhance the ability of organizations to build resilience. Previous research has focused on strategic human resource management practices and their link to organizational resilience (Bouaziz & Hachicha, 2018; Lengnick-Hall et al., 2011; Rehman et al., 2021; Yu et al., 2022). The indirect relationship of knowledge-based human resource management practices and organizational resilience was investigated by adding learning climate as a mediator. This study fills the gap in literature.

1.2.2 Gap 2: Mediating role of learning climate

This study analyzes how learning climate acts as a causal pathway between the said independent and dependent variable. Despite the growing body of literature on knowledge-based human resource management practices (Al-Tal & Emeagwali, 2019; Gupta, 2021; Le & Le, 2023; Singh et al., 2021) and organizational resilience (Beuren et al., 2022; He et al., 2023; Odeh et al., 2023; Wang & Wang, 2023) there is an evident gap which explains the relationship between knowledge-based human resource management practices and organizational resilience. Concurrently, there is also a gap regarding the mechanism through which the knowledge-based human resource management practices can influence

organizational resilience. In line with these realities, this research focuses on the mediating role of learning climate between knowledge-based human resource management practices and organizational resilience. Therefore, this gap will be addressed in this study.

1.2.3 Gap 3: Relationship between learning climate and organizational resilience

This study is concerned with learning climate and its direct impact on organizational resilience. Recent literature has focused by studying the direct impact of business network (Xie et al., 2022), transformational leadership and adaptive culture (Odeh et al., 2023), digital intensity and digital transformation management intensity (He et al., 2023), digital corporate social responsibility, social entrepreneurship, and competitive intelligence (Al-Omoush et al., 2023) upon organizational resilience. Despite the recent focus on organizational resilience, there is an evident gap between the learning climate and its direct impact on organizational resilience. Therefore, this paper aims to fill that gap.

1.3 PROBLEM STATEMENT

The volatile condition of the economy is a significant concern for organizations around the world. According to Guggenberger et al. (2023), 60% of the respondents outline the importance of resilient organizations. The same report further highlights the preparedness of organizations to combat future shocks. It was revealed that organizations preparedness varied from some extent (35%) to very little (12%) to not at all (3%) (Guggenberger et al., 2023). The lack of resilience can pose a serious threat for the organizations' ability to cope with disruptions in the external environment. In a similar vein, Spitse et al. (2022) also highlight concerns regarding organizational resilience, revealing that the changing economic conditions as a result of political opportunism, income inequality, nationalism, and deterioration of institutions demands that organizations incorporate these factors into their strategic plans so they are in a better position to combat the external circumstances.

Relevant to this study, South Asia's economic growth in 2023 is expected to drop (5.9%) and it is forecasted to drop even further in 2024 (5.1%) (World Bank Group, 2023). The report further suggests a deceleration in industrial production of Pakistan & Sri Lanka. Simultaneously, the said countries have a high inflation rate. Amongst South Asian countries, Pakistan's industrial production contracted by 25% as of March 2023 (World Bank Group,

2023). Relevant to the context of this study, the hospitality sector is no exception. The current inflation (38%) is at an all-time high in Pakistan (Khan, 2023). The purchasing power of nationals has reduced which can possibly hinder tourism within the country (Hussain, 2023). Though there has been a rise in tourism, concerns have been voiced regarding the near future of the industry due to the climbing inflation (Hussain, 2023). Consequently, hotel occupancy could be reduced, which could lead to a loss of profitability.

The highlighted statistics have serious implications for the organizations if a proactive stance is not taken. Such economic challenges may impact the organizations' capacity to be innovative and creative. Additionally, it may lead the organization into a vicious cycle where performance is continuously declining, and it may even lower the morale of the employee. Additionally, lack of resilience may damage the reputation of the organization, resulting in losing customers, suppliers, and other valuable networks with stakeholders. Thus, the present study is timely as it provides a framework to build resilience against the changing dynamics in the hotel industry.

1.4 RESEARCH OBJECTIVES

1. To investigate the influence of knowledge-based human resource management practices (knowledge-based recruitment, knowledge-based training, knowledge-based performance assessment, and knowledge-based compensation) on the learning climate in the hospitality sector of Pakistan.
2. To investigate the influence of learning climate on organizational resilience in the hospitality sector of Pakistan.
3. To investigate the influence of organizational resilience on innovation performance in the hospitality sector of Pakistan.
4. To investigate the mediating role of learning climate between knowledge-based human resource management practices and organizational resilience in the hospitality sector of Pakistan.

1.5 RESEARCH QUESTIONS

1. Do knowledge-based human resource management practices (knowledge-based recruitment, knowledge-based training, knowledge-based performance assessment, and knowledge-based compensation) influence the learning climate in the hospitality sector of Pakistan?
2. Does learning climate impact organizational resilience in the hospitality sector of Pakistan?
3. Does organizational resilience impact innovation performance in the hospitality sector of Pakistan?
4. Do knowledge-based human resource management practices influence organizational resilience through learning climate in the hospitality sector of Pakistan?

1.6 SIGNIFICANCE OF STUDY

1.6.1 Theoretical significance

This study is significant as it adds to the extant literature by providing an understanding of how knowledge-based human resource management practices with the mediation of learning climate can enhance organizational resilience. Prior literature has examined strategic human resource management practices and its association to organizational resilience (Bouaziz & Hachicha, 2018; Lengnick-Hall et al., 2011; Rehman et al., 2021; Yu et al., 2022). However, the relationship of knowledge-based human resource management practices and organizational resilience with the mediation of learning climate remained unexamined. This is theoretically significant as this study fills an evident gap in literature.

The current study examines the causal pathway through which knowledge-based human resource management practices impacts organizational resilience. This is significant as there is little to no research that has been conducted on this relationship. Although there is an increasing volume of research on knowledge-based human resource management practices (Al-Tal & Emeagwali, 2019; Gupta, 2021; Le & Le, 2023; Singh et al., 2021) and organizational resilience (Beuren et al., 2022; He et al., 2023; Odeh et al., 2023; Wang & Wang, 2023), this study fills a discernable gap which explains the mechanism through which knowledge-based human resource management practices can impact organizational

resilience. Additionally, previous studies have utilized employee resilience (Prayag et al., 2024), organizational learning (Do et al., 2022), and ambidextrous learning (Xie et al., 2022) as mediators in relation to organizational resilience; however, there are limited studies where learning climate acts as a mediator. Therefore, this research is notable as it fills the stated gap in literature.

The present study also examines the relationship between learning climate and organizational resilience. Previous studies have examined learning climate with various variables (Xie et al., 2022; Odeh et al., 2023; Al-Omoush et al., 2023; He et al., 2023); however, its relationship to organizational resilience remains unaddressed. Therefore, this contribution is of theoretical significance as it fills an evident gap.

1.6.2 Practical significance

This study is extremely important for the hotel industry of Pakistan. It is highly essential that managers navigate the organization through external shocks such as political unrest, increased inflation, disease outbreaks, and other unpredictable events. It is profoundly essential that employees inculcate knowledge processes to foster a learning climate, which will help the hotel industry to build resilience, and consequently, lead the hotels to perform innovatively. Therefore, this study is a guideline on how important it is for managers to utilize knowledge-based human resource management practices to build resilience.

This suggests that ensuring an inflow of the right hires will lead to the prompt acquisition, sharing, and application of knowledge within the hotel industry. It is significantly vital that the new hires disseminate knowledge across the organization so that a learning climate continues to prevail. This will enable the hospitality professionals to generate solutions for the external calamities which will eventually allow them to operate in an innovative manner. Considering the highly dynamic nature of the said industry and the fact that the hotel industry deals with tourists from wide array of cultures, it is important that managers particularly focus on hiring candidates with relevant networking, learning, and knowledge capabilities.

Apart from the right hire, it is also important that the knowledge of the hospitality professionals is regularly updated. A well-designed and customized training program will not only equip the hospitality professionals with the updated competencies but will also enable them to respond to the external crisis in a more effective and efficient manner. The importance of knowledge-based training can also be realized from the fact that customer

preferences are dynamic and the right training will help the hospitality professionals to cater to their changing needs. Therefore, it is important for managers to frequently develop the hospitality professionals' expertise so they can ensure a timely and prompt recovery of the hotels from external threats.

Additionally, the significance of ensuring a robust knowledge-based performance assessment within the hotel industry serves as a key for building organizational resilience. It is not only a matter of right hire and training but also whether the hospitality professionals can maintain behaviors and actions desired by the hotel industry. Therefore, the knowledge components i.e., acquisition, sharing, and application will ensure that the professionals are aware of their strengths and weaknesses as well as ensure an attitude aligned with the expectations of the hotel industry. It will also serve as a guide for the managers on the type of trainings that should be provided. In a broader perspective, it will help the overall hotel industry to utilize the knowledge to strengthen the industry's capacity for managing external threats and become innovative in their approach to meet customer expectations.

Apart from directing the behavior of the hospitality professionals through assessments, it is equally important to reward them. Knowledge-based compensation is an immensely significant factor in motivating the hospitality professional in the hotel industry. It will drive them to assimilate, disseminate, and implement the knowledge. This will boost the learning climate as the employees within the hotel industry will perceive that displaying a learning behavior will lead to rewards and support for the employee. The collaboration and cooperating of the hospitality professionals can help achieve organizational resilience as they will take a proactive approach by being ready for the external crisis. Once the organization is in a position to defend itself against the outside threats, the employees will be able to work towards innovation.

Knowledge-based human resource management practices are important to build organizational resilience, but managers may not have the jurisdiction to formulate such strategies without the involvement of policy makers. It is the policy makers who will have to ensure that effective practices are in place to develop a firm's resilience. This study is also a guideline on how the implementation of knowledge-based human resource management practices by the managers can enable organizational resilience of the firm. Therefore, it falls upon the policy makers to devise strategies which promote knowledge sharing, knowledge creation, and knowledge exchange.

Knowledge-based human resource management practices are important for policy makers as these practices will impact the knowledge-based recruitment through talent acquisition, attraction, and retention strategies, knowledge-based training through professional development and succession planning strategies, knowledge-based compensation through incentive alignment of hospitality professionals and the overall objectives of the hotel industry, knowledge-based performance assessment through devising policies that ensures a responsible behavior. Introducing policies which promote knowledge creation, sharing, and exchange creates a learning climate which enhances the organizational resilience of the firm. This is because the knowledge processes ensure that the relevant information is disseminated across the organization. Such practices will help the organization to be prepared for external calamities.

1.7 SCOPE OF STUDY

This thesis provides a detailed analysis on organizational resilience achieved through knowledge-based human resource management practices within the hotel sector of Pakistan. The study examines four central objectives. First, it investigates the impact of knowledge-based human resource management practices on learning climate. Second, it investigates the impact of learning climate on organizational resilience. Third, it investigates the impact of organizational resilience on innovation performance. Finally, it investigates the impact of knowledge-based human resource management practices on organizational resilience through the mediation of learning climate. The comprehensive analysis was supported by reviewing the literature and a quantitative approach was employed to conduct the study. This research set clear boundaries by excluding other sectors within the hospitality industry such as travel & tourism, entertainment & recreation, and several others. This research is particularly focused on the hotel sector within the hospitality industry. Additionally, it sets a further boundary by excluding one- and two-star hotels. This study has only considered three-four- and five-star hotels within Pakistan. With a specific focus on the outlined scope, this thesis provides rich insights on how organizational resilience can be attained through knowledge-based human resource management practices in the hotel sector of Pakistan.

1.8 OPERATIONAL DEFINITIONS

1.8.1 Knowledge-based human resource management practices

Knowledge-based human resource management practices are defined as, "the practices aimed at improving the flow of knowledge - knowledge acquisition, assimilation, transformation, and exchange capabilities in the organization" (Donate & Pablo, 2015; Singh et al., 2021, p. 03).

1.8.2 Knowledge-based recruitment

Knowledge-based recruitment is defined as, “an explicit and strong emphasis on selecting candidates with pertinent networking, learning and knowledge capabilities” (Al-Tal & Emeagwali, 2019, p. 08).

1.8.3 Knowledge-based training

Knowledge-based training is defined as, “regular development of employees’ expertise and knowledge comprehensively, by personalizing training to fit employees’ peculiar needs and ensuring a continuous development” (Al-Tal & Emeagwali, 2019, p. 08).

1.8.4 Knowledge-based performance assessment

Knowledge-based performance assessment is defined as, “evaluation of employees based on their contribution and involvement in improving the organization’s knowledge process e.g., knowledge creation, sharing and application” (Alavi & Leidner, 2001; Al-Tal & Emeagwali, 2019, p. 08).

1.8.5 Knowledge-based compensation

Knowledge-based compensation is defined as, “recompensing employees based on their contributions to the organization’s key knowledge process involving knowledge creation, sharing and application” (Al-Tal & Emeagwali, 2019, p. 08).

1.8.6 Learning climate

Learning climate has been defined as "employees' perceptions of organizational policies, and practices aimed at facilitating, rewarding and supporting employee learning behavior" (Nikolova et al., 2014, p. 259).

1.8.7 Organizational resilience

Organizational resilience is defined as, "pre-event readiness for a disruptive event, post-event response for appropriate and timely recovery, and creative renewal capacity though improvisation" (Kantur &İşeri-Say, 2012, p. 764).

1.8.8 Innovation performance

Innovation performance is defined as, “successful outcomes achieved through the development and/or significant improvement of products, processes and markets” (Zhang et al., 2020, p. 257).

1.8.9 Hospitality professional

Dang (2022) has defined hospitality professionals as "professionals or employees who were working in the hospitality industry" (p. 11). In this study, we consider hospitality professionals as those who work in three-four-and five star category hotels with at least 16 years of education and with the minimum 1 year of experience.

1.9 ORGANIZATION OF THESIS

Chapter 1 serves as the introductory chapter for this study. Chapter 1 lays the groundwork for this research. The chapter provides an overview of the variables and objectives of the research. This chapter further elaborates upon the gaps and significance of the study. Additionally, the chapter highlights the context, scope, and issues upon which the study is based.

Chapter 2 focuses on the literature review of the research. It explains the variables in detail and scrutinizes past literature to formulate hypotheses. Subsequent to that, the section

explains the relevant theory for this research and how that plays a role in this study. Finally, a conceptual model is depicted relevant to the present research.

Chapter 3is dedicated to the methodology of this research. It gives a detailed explanation for the research design, population and sampling, questionnaire design, instrument validation and language. It also provides detailed explanation of the pre-test and pilot test conducted. It further discusses how the questionnaire was administered and the ethical considerations of the study.

Chapter 4 reports the data analysis and results of the study. This section includes a detailed overview of the demographics of the concerned population. It also describes the common method bias and steps undertaken to avoid it. The section further tests the hypotheses and presents the results.

Chapter 5 is centered on the discussion of the findings. In this section, prior literature is utilized to explain the results of the study. Additionally, the section also highlights implications and contributions for managers and academics, respectively. Finally, the chapter is concluded by outlining the limitations of the study and providing recommendations for the future researchers.

CHAPTER 2

LITERATURE REVIEW

2.0 CHAPTER INTRODUCTION

This chapter provides a review of literature on knowledge-based human resource management practices, learning climate, organizational resilience, and innovation performance. The analysis of literature helps in developing hypotheses on how knowledge-based human resource management practices impacts organizational resilience through learning climate. It also provides an understanding of how organizational resilience impacts innovation performance. This chapter also explains the stimulus-organism-response model which has been utilized to explain the conceptual framework of the study.

2.1 CONCEPTUALIZATION

2.1.1 Knowledge-based human resource management practices

Knowledge-based human resource management practices incorporate human resource management practices purposefully devised to refine firm's knowledge processes (Al-Tal & Emeagwali, 2019). The knowledge-based human resource management practices are aimed at improving the flow of information - knowledge acquisition, knowledge assimilation, and knowledge exchange (Donate & Pablo, 2015; Singh et al., 2021). This is achieved through specific recruitment and selection, training and development, performance assessment, and compensation practices (Lopez-Cabrales et al., 2009; Singh et al., 2021).

i. Knowledge-based recruitment

Knowledge-based recruitment is defined as, “an explicit and strong emphasis on selecting candidates with pertinent networking, learning and knowledge capabilities” (Al-Tal & Emeagwali, 2019, p. 08). This concept demands the understanding of two important practices i.e., recruitment and selection. The former involves activities executed by the firms with the core intention of identifying and attracting promising employees (Breaugh & Starke, 2000).

The latter encompasses activities to recognize the candidate most suited to meet the occupational responsibilities and be the best fit with the work teams and culture of the organization (Torrington et al., 2014). The purpose of selection is to attract the best applicants to the organization in terms of their inherent potential (Doorewaard & Meihuizen, 2000; Huselid, 1995; Lopez-Cabrales et al., 2009). It is essential that individuals responsible for recruiting not only select applicants with current skills, knowledge or experience but also account for their potential (Al-Tal & Emeagwali, 2019). This is because employees with potential are more likely to learn, obtain knowledge or skills necessary for innovation (Al-Tal & Emeagwali, 2019; Jiang et al., 2012). Recruitment and selection influences the knowledge creation as these practices are the deciding factors for the knowledge entering the firm (Winne & Sels, 2010). Therefore, knowledge-based recruitment should inculcate a robust and explicit focus on selecting candidates with relevant knowledge, learning, and networking capabilities (Kianto et al., 2017; Shujahat et al., 2019; Sheng et al., 2019). In short, knowledge based recruitment and selection practices stresses on knowledge acquisition and an employee's capability to collaborate, learn new skills, and perform according to firm's requirements (Elayan et al., 2022).

ii. Knowledge-based training

Knowledge-based training is defined as, “regular development of employees’ expertise and knowledge comprehensively, by personalizing training to fit employees’ peculiar needs and ensuring a continuous development” (Al-Tal & Emeagwali, 2019, p. 08). The Peter Principle is a paradoxical idea, where an employee continues to get promoted till he/she reaches a position where they are no longer competent or productive (Hayes, 2023). This can also become a hindrance to the further development of the employee. The solution - training. It was highlighted by Robbins, Judge, Campbell (2010) that competent employees will not always stay competent. This is because skills deteriorate and becomes outdated (Kianto et al., 2017). Therefore, organizations who design training and development practices can bridge the gap between employees' current and required knowledge and skills which will then contribute to knowledge creation (Winne & Sels, 2010). While it closes the gap, training and development activities also improves the human capital of the firm (Cabello-Medina et al., 2011). Per Lau & Ngo (2004), training can strengthen employees' work domain expertise while also enhancing their creative thinking capabilities. Training & development that particularly caters to the knowledge component will encompass regularly educating staff to

enhance the depth and breadth of their skillset and knowledge (Kianto et al., 2017; Sheng et al., 2019). The content of the training is customized to ensure that the workforce learn certain essentials while also ensuring that employees are developed continuously (Kianto et al., 2017; Sheng et al., 2019). In a nutshell, knowledge-based training and development necessitates frequent development of employees' proficiency and knowledge by tailoring the training to fit their specific needs and making sure that there is a continuous development (Al-Tal & Emeagwali, 2019).

iii. Knowledge-based performance assessment

Knowledge-based performance assessment is defined as, "evaluation of employees based on their contribution and involvement in improving the organization's knowledge process e.g., knowledge creation, sharing and application" (Alavi & Leidner, 2001; Al-Tal & Emeagwali, 2019, p.08). Knowledge-based performance entails evaluation of the employees based on their contribution to firm's knowledge processes i.e. knowledge sharing, creation, and application (Al-Qaralleh & Atan, 2022). The assessment is designed to foster knowledge management processes by stressing on feedback, contribution, involvement, and motivation techniques (Al-Qaralleh & Atan, 2022). Feedback facilitates in identifying the gaps between performance and targets (Shipton et al., 2006). This helps in motivating employees to work innovatively (Jiang et al., 2012). Furthermore, performance evaluations that focus on learning and growth will enable employees to develop the confidence needed to seize opportunities for enhanced learning (Jiang et al., 2012). Performance evaluation is essential and relevant mechanism of directing the behavior of the workforce (Al-Tal & Emeagwali, 2019). It is paramount that managers make a deliberate and explicit effort to integrate performance metrics into the knowledge process to ensure improvement of the practices (Al-Tal & Emeagwali, 2019). In short, knowledge-based performance assessment measures employees according to their input and involvement in enhancing the firm's knowledge processes i.e. knowledge creation, knowledge exchange, and knowledge application (Alavi & Leidner; Al-Tal & Emeagwali, 2019).

iv. Knowledge-based compensation

Knowledge-based compensation is defined as, "recompensing employees based on their contributions to the organization's key knowledge process involving knowledge creation,

sharing and application" (Al-Tal & Emeagwali, 2019, p. 08). Compensation policies aid in championing knowledge management within the firm (Al-Tal & Emeagwali, 2019; Kianto et al., 2017). Managers could utilize both tangible and intangible means to motivate employees to share, create, and apply knowledge (Andreeva & Kianto, 2012; Scarbrough, 2003; Kianto et al., 2017). The tangible means are incentives such as bonuses or one-off rewards while the intangible means are incentives such as status and recognition (Andreeva & Kianto, 2012; Scarbrough, 2003; Kianto et al., 2017). Numerous research has outlined that reward systems are essential mechanisms for motivating employees to invest time required to share and generate novel ideas (Andreeva & Kianto, 2012; Chen & Huang, 2009; Kamhawi, 2012; Kianto et al., 2017). To be concise knowledge-based compensation encompasses compensation activities that are designed to facilitate knowledge sharing, knowledge creation, and knowledge application in the firm (Al-Tal & Emeagwali, 2019; Kianto et al., 2017; Al-Qaralleh & Atan, 2022).

2.1.2 Learning climate

Learning climate has been defined as "employees' perceptions of organizational policies, and practices aimed at facilitating, rewarding and supporting employee learning behavior" (Nikolova et al., 2014, p. 259). Before the conceptualization of learning climate, it is important to understand organizational climate. Organizational climate is the shared perception of the workforce regarding the behavior and practices that are encouraged by the firm (Schneider et al., 2002). However, numerous climate researchers believed that the concept of organizational climate is rather generic and somewhat imprecise (Jiang et al., 2015; Schneider et al., 2013). It was outlined that climate researchers have changed their standpoint, rather than viewing climates as a collective perception related to wide global issues; it is now regarded as shared, precise, strategic factor of importance (Bowen & Ostroff, 2004). Such a transition implies that employees struggle to make a link between their perception of the climate and organization's strategy; it becomes difficult to inspire the desired positive behaviors (Ouerdian et al., 2019). In the context of this study, learning climate is considered a more specific climate as it focuses on the learning behaviors of employees.

Learning climate presents the workforce with opportunities for feedback, dialog, open communication, innovation, and constructive confrontation (Ouerdian et al., 2019). Learning climate cultivates individual and team learning which renews the knowledge pool of the

organization (Ouerdian et al., 2019). Leaning climate has been conceptualized in several manners. First, Garvin et al. (2008) proposes that a learning climate should welcome conflicting views, novel propositions, and reflection. Basically, he believed that employees should feel secure in making mistakes and learning from them. This standpoint was backed by Emonds (2008) who also stresses that experimentation and errors should be permitted. Second, learning climate is also conceptualized as having opportunities to learn or the freedom to be involved in discussions and exchange diverse viewpoints (Garvin et al., 2008; Singer et al., 2012; Crans et al., 2021). Third, technology and infrastructure that enables learning should be a key component (Emonds, 2018; Garvin et al., 2008; Marsick and Watkins, 2003; Singer et al., 2012; Crans et al., 2021). Finally, a leadership that cultivates knowledge sharing by being willing to listen to and question different perspectives and new ideas (Garvin et al., 2008), to ensure a platform where everyone is given the opportunity to participate in discussions (Garvin et al., 2008; Singer et al., 2012; Crans et al., 2021), and modeling as strategic leaders who can establish a link between organizational goals and learning (Marsick and Watkins, 2003; Crans et al., 2021).

2.1.3 Organizational resilience

Organizational resilience is defined as, "pre-event readiness for a disruptive event, post-event response for appropriate and timely recovery, and creative renewal capacity through improvisation" (Kantur &İşeri-Say, 2012, p. 764). The term "Resilience" originated from a Latin word "Resilere" which means "to spring back" (Rodríguez-Sánchez et al., 2021). Consequently, resilience is the ability to bounce back from crisis, unpredictability, conflict, setbacks, or even positive change (Rodríguez-Sánchez et al., 2021; Luthans, 2002). Organizational resilience is defined as “the maintenance of positive adjustment under challenging conditions such that the organization emerges from these conditions strengthened and more resourceful” (Vogus and Sutcliffe, 2007, p. 3,418). However, organizational resilience is defined in multiple ways; some define it as capability, capacity, characteristic, outcome, process, behavior strategy or approach, type of performance or a combination of these (Hillman & Guenther, 2020). Essentially, organizational resilience is the capacity of the firm to withstand major business setbacks as a result of unpredictable, sudden, and devastating circumstances causing the organizational systems to go beyond the anticipated limits without any significant losses (Antunes, 2010; He et al., 2023). The idea of organizational resilience aims to comprehend organization's diverse responses to outside

threats (Williams & Vorley, 2014). Such external threats include but are not restricted to natural disasters, economic/industrial conflicts, disease outbreaks, and political issues (He et al., 2023). Firms that are resilient are able to adjust under complex conditions, they are able to bounce back from unpredicted events, and they stay operational in challenging situations (Gittell et al., 2006; Kunz & Sonnenholzner, 2023). Per organizational literature, resilience is an instrumental organizational capability for modern day enterprises and it stands to be one of the fundamental traits essential for their success in the present world (Näswall et al., 2013; Britt et al., 2016; Rodríguez-Sánchez et al., 2021).

2.1.4 Innovation performance

Innovation performance is defined as, "successful outcomes achieved through the development and/or significant improvement of products, processes and markets" (Zhang et al., 2020, p. 257). Innovation performance is a pivotal metric for firms to evaluate how it transforms novel ideas into valuable products, services, or processes which determines the responsiveness and competitiveness in dynamic business environments. Innovation, at its core, is viewed as the enhancement or modernization in the formulation of new ideas (Koryak et al., 2015). It is also the development and implementation of sophisticated perspectives to work (Anderson et al., 2014). Innovation actualizes when employees enhance value of the commodities, services, processes, promotions, distribution system, and policies which are integrated to accomplish organization's benefits (Shahzad et al., 2015). Additionally, it is also to gain trust of the stakeholders (Shahzad et al., 2015). It was concurred that knowledge and skillfulness are essential components for innovation to occur (McDowell et al., 2015). This can be attributed to a creative and knowledgeable workforce as they formulate new ideas or challenge the usual practices adhered to by the organization (Wang and Kafouros 2009; Wendra et al. 2019).In essence, innovation performance is an outcome of diverse management strategies applied within the firms' business practices (Molina-Morales, García-Villaverde & Parra-Requena, 2014; Hurtado-Palomino, 2022).

2.2 STIMULUS-ORGANISM-RESPONSE MODEL

The stimulus-organism-response model is pioneered by Woodworth (1929). The model is built on the traditional stimulus-response theory. Stimulus and response were explained as the

aspects of behavior and environment and unpredicted alterations in the surroundings that can impact the psychological and emotional stability of an individual which then enables the behavioral change (Donovan & Rossiter, 1982; Skinner, 1935; Pandita et al., 2021). Hence, the underlying premise of the stimulus-organism-response model is that a particular stimulus directs the individuals' perceptions and attitudes, which then guides their intentions and behaviors(Han et al., 2022). Essentially, the stimulus-organism-response model outlines that the external environment triggers an individual's cognitive state wherein the detected stimulus is processed to illicit a behavioral response (Wu & Lai, 2022).

The stimulus-organism-response model consists of three constructs, namely, stimulus, organism, and response. First, stimulus is defined as "the influence that arouses the individual" (Eroglu et al., 2001). It has been described as the external factor which gives influence and rise to the organism (Song et al., 2021). Second, organism is defined as “internal processes and structures intervening between stimuli external to the person and the final actions, reactions, or responses emitted. The intervening processes and structures consist of perceptual, physiological, feeling, and thinking activities" (Bagozzi , 1986). It has been described as the interaction of internal states i.e., the affective and cognitive states to generate a response (Lopez-Cabrales et al., 2009; Wu & Li, 2018). The affective state refers to the emotional reaction when encountered with a stimulus (Ming et al., 2021). On the other hand, the cognitive state refers to the mental processes as a result of the stimulus (Fu et al., 2018). These states are intermediary between the stimulus and how the individual will respond to the external influences (Wu & Li, 2018). Finally, response is defined as "the final behavioral outcome of an individual that may be positive or negative" (Donovan & Rossiter, 1982; Spence, 1950). It has been explained as the actions of an individual as a result of the cognitive and affective states (Ming et al., 2021).

In the context of this study, knowledge-based human resource management practices act as a stimulus i.e., an external factor whose aim is to foster the learning climate of the organization. Following the practices of knowledge-based human resources management practices, the employees who possess a high potential are focused on knowledge creation, knowledge assimilation, and knowledge dissemination. This is a proactive behavior of employees which will ultimately lead to a resilient organization. For instance, knowledge-based training ensures that the skills of the employees are regularly updated (Winne & Sels, 2010). This is a stimulus from the organization to employees. As a result, employees utilize the attained skills to create, assimilate, and disseminate knowledge (Elayan et al., 2022).

Consequently, organizational resilience is achieved as a result of the mental processes of employees to generate creative solutions. A resilient organization can respond by achieving innovation.

2.3 HYPOTHESES DEVELOPMENT

2.3.1 Knowledge-based human resource management practices and learning climate

The flow of knowledge is achieved through human resource management practices such as recruitment & selection, training & development, performance appraisal, and compensation (Lopez-Cabrales et al., 2009). This differs from traditional human resource management practices as they are re-operationalized to embed knowledge sharing and exchange flows in their practices (Noopur & Dhar, 2019). Per Elayan et al. (2022), knowledge-based human resource management practices are conceptualized as practices formulated "to attract, retain, and motivate employees to absorb, share, create, and utilize knowledge" (p. 03).

i. Hypothesis 1: Knowledge-based recruitment and learning climate

The first practice is referred to as knowledge-based recruitment. Traditionally, recruitment involves generating a pool of potential human capital (Breaugh & Starke, 2000).On the other hand, the conventional way of describing selection is choosing the best candidate from the pool of candidates with the assumption that he/she will fulfill the role most successfully (Torrington et al., 2014). However, the knowledge-based recruitment and selection focuses specifically on hiring candidates for their high potential rather than the skills they possess (Lepak & Snell, 1999, 2002). The underlying assumption is that such employees will have the capability to learn competencies necessary for innovation (Jiang et al., 2012).

Knowledge-based recruitment practices have the potential to foster a learning climate. Literature argues that learning and knowledge sharing are intricately connected concepts with a substantial influence on each other (Ouerdian et al., 2019). In a paper by Nonaka & Takeuchi (1995), it was outlined that learning happens in a collaborative environment. Therefore, knowledge-based recruitment & selection gives pronounced emphasis on selecting individuals who possess pertinent knowledge, aptitude for learning, and proficient network capabilities (Kianto et al., 2017). As such this study theorizes that suitable hires will facilitate

knowledge acquisition and dissemination, thereby enhancing the learning climate of the organization.

From the stimulus-organism-response model perspective, knowledge-based recruitment will not only have a positive influence on the learning climate but can also prove to be a mechanism to cope with changing external dynamics of the organization. It has been stressed upon that firms must establish human resource management practices that can cope with the swift transformations in the ecosystem surrounding the organization (Waheed et al., 2019; Wei & Lau, 2005). Organizations that are able to capitalize on such a stimulus are in a position to recruit high potential individuals who can contribute by adding value. Once the stimulus is received, organizations engage in the organism phase of the stimulus-organism-response model (Wu & Li, 2018). The firm will process the information to generate a response (Wu & Li, 2018). The firm will respond by hiring the appropriate candidate. In knowledge-based recruitment, the appropriateness of a candidate is judged by his capacity to share knowledge and collaborate with his fellow colleagues. This is evident from previous literature where it is argued that hiring an individual who is a fit to the practices within the organization will be inclined towards sharing information (Fong et al., 2011; Ouerdian et al., 2019; Kang et al., 2007). Jaw & Liu (2003) conducted research in Taiwanese firms where they demonstrated that selective recruitment practices can enhance the learning climate of the organization. Based on prior literature, this research hypothesizes that:

H1: Knowledge-based recruitment has a positive impact on learning climate.

ii. Hypothesis 2: Knowledge-based training and learning climate

The second practice is referred to as knowledge-based training. Employees are regularly trained to acquire novel skills as the underlying assumption is that the existing skills are likely to deteriorate (Al-Qaralleh & Atan, 2022; Kianto et al., 2017). Therefore, training modules are designed to enhance the existing skills and bridge the gap for skills required in the future (Winne & Sels, 2010). Knowledge-based training & development explicitly focuses on enhancing the knowledge, skills, and attitudes of employees, vertically and horizontally (Noopur & Dhar, 2019), thereby ensuring that the trainings are tailor-made to meet the specific requirement of individuals and to encourage perpetual professional development (Kianto et al., 2017). Based on the literature, one may argue that knowledge-based human resource management training has a link to learning climate. Learning climate

has a favorable impact on employee motivation and employee job satisfaction (Egan et al., 2004; Govaerts et al., 2011), whereas the aforementioned employee outcomes has been associated to human resource management practices such as training (Huang & Su, 2016; Msaouel et al., 2010). Additionally, it has been suggested that while formal trainings are essential to gain expertise on a subject matter; informal learning such as knowledge sharing with colleagues, too, have a significant role (Eraut, 2004). Organizations encouraging informal learning activities along with formal training may enhance learning climate.

From the stimulus-organism-response model perspective, knowledge-based training impact goes beyond just contributing to learning climate; it also strengthens the growth of an employee. Knowledge-based training tends to emphasize the continuous up-skilling of the employee. This is the stimulus that the employee receives through interpersonal mentoring relationships (Swart & Kinnie, 2013), cooperative and team building exercises (Ouerdian et al., 2019). The employees then process this information in the organism phase. In this phase their cognitive and affective faculties interact with the stimulus (Fu et al., 2018) enabling them to process the information they have received through training. The employee then responds by establishing a relationship of trust and cooperation with other colleagues or team members (Cabrera & Cabrera, 2005; Lu et al., 2006). In light of this information, the learning climate within the organization prospers. This is because training creates a platform where there is interaction amongst the employees (Fong et al., 2011; Ipe, 2003). They exchange dialogues regarding problems at the workplace and they solicit each other's feedback on the issues (Fong et al., 2011; Ipe, 2003). This enables them to widen their existing knowledge-base and assimilate new information (Fong et al., 2011; Ipe, 2003). Hence, the study theorizes:

H2: Knowledge-based training has a positive impact on the learning climate.

iii. Hypothesis 3: Knowledge-based performance assessment and learning climate

The third practice is referred to as knowledge-based performance assessment. This mechanism guides employees' behavior which is desired in the organization. Relevant to knowledge-based performance assessment, organizations put explicit emphasis on incorporating performance criteria which captures behaviors relevant to knowledge processes such as knowledge sharing, knowledge creation, and knowledge application (Kianto et al., 2017). Feedback has been identified to be a necessary component of the appraisal system

(Lepak & Snell, 1999, 2002). In the context of knowledge-based performance assessment, feedback helps employees direct their efforts in leveraging opportunities for advanced learning (Jiang et al., 2012; Stiles et al., 1997). Additionally, performance assessment focused on feedback and formulating a development plan (Weisman, 1999) for employees will enable them to contribute to the organization through knowledge creation, sharing, and application (Alavi & Leidner, 2001). As such, these knowledge processes should enhance the learning climate of the firm.

From the stimulus-organism-response model perspective, knowledge-based performance assessment can play a role in advancing the learning climate within the organization. Knowledge-based performance assessment acts as a stimulus to the employee. This is achieved through the additional component in the assessment form which evaluates cooperation behaviors, mentoring skills, and teamwork. Literature suggests that these skills lead to knowledge sharing behavior amongst employees (Ouerdian et al., 2019). In conjunction to that, feedback is another important component to knowledge-based performance assessment (Ouerdian et al., 2019). It, too, acts as a stimulus to the employee. This stimulus is instrumental in bridging the gap between actual and expected performance (Shipton et al., 2006). It has also been suggested that knowledge-based performance assessments aid the employees in leveraging the opportunities for better learning (Al-Tal & Emeagwali, 2019). Organizations recognize the contributions they make to enhance the knowledge processes of the organization (Alavi & Leidner, 2001). Therefore, this research theorizes:

H3: Knowledge-based performance assessment has a positive impact on the learning climate.

iv. Hypothesis 4: Knowledge-based compensation and learning climate

The final practice is referred to as knowledge-based compensation. It influences an employee to perform optimally (Baranchuk et al., 2014). Andreeva & Kianto (2012) argues that when an employee is satisfied in terms of tangible and intangible rewards, the employee becomes conscious of their pivotal role which facilitates a collaborative and interactive environment within the organization. For learning climate to prevail in the organization, it is necessary that employees engage in shared and collaborative discussions, show tolerance to multiple perspectives, gaining insights from past mistakes, acquire knowledge from fellow colleagues, and draw on valuable practices from other organizations (Woerkom, 2003). The authors

highlight that good compensation will provoke employees to engage in knowledge processes (Hussinki et al., 2017; Inkinen et al., 2015; Kianto et al., 2014). Therefore, a sound incentive system should encourage a climate for learning.

From the stimulus-organism-response model perspective, knowledge-based compensation can play a crucial role in enhancing the learning climate of the organization. Knowledge-based compensation acts as a stimulus. This stimulus plays an important part in directing the behavior of employees (Baranchuk et al., 2014). The desired behavior, in this case, is to promote knowledge processes within the organization. This stimulus engages their cognitive and affective functions to generate ideas which will foster knowledge processes, thereby creating a learning climate within the firm. The employees are then rewarded for this behavior depending on their level of contribution (Al-Tal & Emeagwali, 2019). Hence, the study hypothesizes that:

H4: Knowledge-based compensation has a positive impact on learning climate.

2.3.2 Hypothesis 5: Learning climate and organizational resilience

Resilience has been described as having the requisite competencies to continue performing as per the projected growth levels after having met an unanticipated event (Do et al., 2022; Kossek & Perrigino, 2016; Liu et al., 2019). Unanticipated events that demand organizational resilience includes but are not limited to natural shocks such as earthquake (Kachali et al., 2012), flood (Achour & Price, 2010), environmental changes (Olsson et al., 2004); economic disputes such as global financial crisis (Kubickova et al., 2019); disease outbreaks such as Ebola epidemics (Lapão et al., 2015), SARS (Kim et al., 2005), Covid-19 (Song et al., 2021); and political issues such as terrorism (Sullivan-Taylor & Wilson, 2009). The authors describe another perspective which focuses on continuous learning of the organization where organizations develop themselves to cope with high-pressure circumstances (Do et al., 2022; Kossek & Perrigino, 2016; Liu et al., 2019). An organization's resilience capabilities are an indication of the extent of readiness it possesses to face the external turmoil and turbulence of the modern world (Hillmann & Guenther, 2021).The ability of an organization to be resilient serves as a key factor in its long-term sustainability which aids the firm to withstand disruptions (Ortiz-de-Mandojana & Bansal, 2016; Shin & Park, 2021) and adapt accordingly (Schriber et al., 2019). Firms that employ a learning-oriented climate hold the ability to

respond to challenges (Putz et al., 2013) while simultaneously analyze the errors to draw valuable lessons from them (Putz et al., 2013; Van Dyck et al., 2005).

From the stimulus-organism-response model perspective, positive antecedents can promote learning climate which can increase the resilience of the organization as a response. In light of this research, knowledge-based human resource management practices can play a key role in enhancing the learning climate. The presence of human resource management practices helps employees in making sense out of their work (Ouerdian et al., 2019). This can be linked to the stimulus-organism-response model's organism phase where employees interact with the stimulus i.e., knowledge-based human resource management practices. These practices engage the employees in knowledge sharing, knowledge assimilating, and knowledge disseminating (Singh et al., 2021). This creates a climate of learning. Therefore, when an external situation arises such as political issues (Sullivan-Taylor & Wilson, 2009), sudden outbreaks (Kim et al., 2005; Song et al., 2021), or environmental changes (Olsson et al., 2004), organization can utilize the established learning climate to achieve resilience. Hence, in light of previous literature, this study theorizes:

H5: Learning climate has a positive impact on organizational resilience.

2.3.3 Hypothesis 6: Organizational resilience and innovation performance

Innovation performance is the direct outcome of diverse management strategies that organizations employ in their business activities (Molina-Morales et al., 2014). Innovation performance has also been characterized as being a pivotal factor for long-term viability and success of the organization against competitors (Clauss et al., 2021; Ruiz-Ortega et al., 2021). It is especially crucial in the rapidly changing business landscape where capabilities such as development of novel products, services, and processes can provide the firms with a competitive advantage (Otchia, 2020; Asare-Kyire et al., 2023). With the passage of time, innovation has been viewed as the panacea for increased global competitiveness and economic setbacks (Drejer, 2004). Organizational resilience and innovation are viewed as complementary concepts (Do et al., 2022). Organizational resilience offers a platform for promoting innovation by proactive learning behaviors which drive knowledge sharing across the organization (Castellacci, 2015), enabling the employees to generate appropriate solutions to the market disruptions (Do et al., 2022). By cultivating a culture of resilience,

organizations can foster a risk-taking behavior, experimentation, and learning that are instrumental factors to innovation (Pisano, 2019; Asare-Kyire et al., 2023).

From the stimulus-organism-response model perspective, organizational resilience is a response that is the outcome of the interaction between knowledge-based human resource management practices acting as a stimulus and learning climate acting as an organism. However, it is not enough that the organization is developing resilience as resilience must be developed to achieve a significant purpose. In light of this research, this study posits that achieving resilience will ultimately lead to an organization being innovative even in the face of external uncertainty. As described earlier, organizational resilience and innovation performance are interrelated ideas (Do et al., 2022); therefore, achieving innovation can be a response to attaining organizational resilience. Hence, this research hypothesizes:

H6: Organizational resilience has a positive impact on innovation performance.

2.3.4 Hypothesis 7: Mediating role of learning climate

Climate is essentially a work environment which has clearly noticeable and measurable attributes. Schneider et al. (2013, p. 362) defines it as "the shared perceptions of and meaning attached to the policies, practices, and procedures employees experience and the behaviors they observe getting rewarded and that are supported and expected". The work environment can be of varying nature and depending upon the organizational priorities, employees will be expected to adhere accordingly. However, whether learning climate is enabled or hindered is largely dependent upon the perception an employee hold regarding the work environment (Hetland et al., 2011). Therefore, in the context of hotel industry, this study posits that a learning climate which has been given precedence by the organization will direct the behavior of hotel professionals in a favorable manner. This is in line with a previous study where a learning appreciative climate will enhance positive attitudes at work as it provides the necessary conditions for such as behavior (Caniëls et al., 2022).

In line with this argument, one may suggest that a positive attitude will foster the learning climate within the organization, paving way for organization to become resilient in the rapidly changing environment. Schein (2004) suggests that organizations must learn faster in the rapidly changing business landscapes. Based on this, he calls for a learning culture which facilitates perpetual learning. In a systematic literature review by Evenseth et al. (2022), it

was highlighted that learning can prepare firms for future scenarios. Additionally, the review also outlines the link between learning and anticipation capability. This implies that organizations detect any emerging problems, forecast the possibility of what could actually happen at that time, and then come with an action plan (Anderson et al., 2020; Evenseth et al., 2022; Hermelin et al., 2020; Hillmann & Guenther, 2021). The anticipation of the issues is linked to the learning capability of the organization. Learning is associated with resilience through the proficiencies that the organization needs to cultivate and strengthen (Evenseth et al., 2022).

Learning climate can be strengthened through human resource management practices that are directed toward knowledge processes such as knowledge acquisition and dissemination. As was outlined by Raj & Srivastava, (2013), human resource management practices can create an environment that encourages the learning ability of the organization through its intellectual and strategic capabilities. Extrapolating on the traditional human resource management practices, knowledge-based human resource management practices may hold the potential to positively impact learning climate. For instance, knowledge-based recruitment, whose focus is on potential of employees, can enhance the learning climate within the firm (Al-Tal & Emeagwali, 2019). As outlined in a study that employees that hold potentials are more likely to learn, acquire competencies which have been deemed necessary for innovation (Al-Tal & Emeagwali, 2019; Jiang et al., 2012). Such a quality within an employee can enhance the learning climate of the firm. Therefore, it is logical to suggest that learning climate may mediate the relationship between knowledge-based human resource management practices and organizational resilience.

From the stimulus-organism-response model perspective, learning climate acts as an organism in this research. This implies that it acts an intermediary between the stimulus and the response (Wu & Li, 2018). It was suggested that a particular set of human resource management practices will help attain organizational climate which aligns with organization's intended strategic goals and objectives (Ouerdian et al., 2019). This can be linked to learning climate i.e. organization can target a specific climate which will generate the desired outcomes (Jiang et al., 2015; Schneider et al., 2013). Therefore, knowledge-based human resource management practices (stimulus) interact with learning climate (organism) to attain organizational resilience (response), ultimately leading to innovation performance (response). Hence, we hypothesize:

H7: Learning climate mediates the relationship between knowledge-based human resource management practices (knowledge-based recruitment, knowledge-based training, knowledge-based performance assessment, and knowledge-based compensation) and organizational resilience.

2.4 CONCEPTUAL MODEL

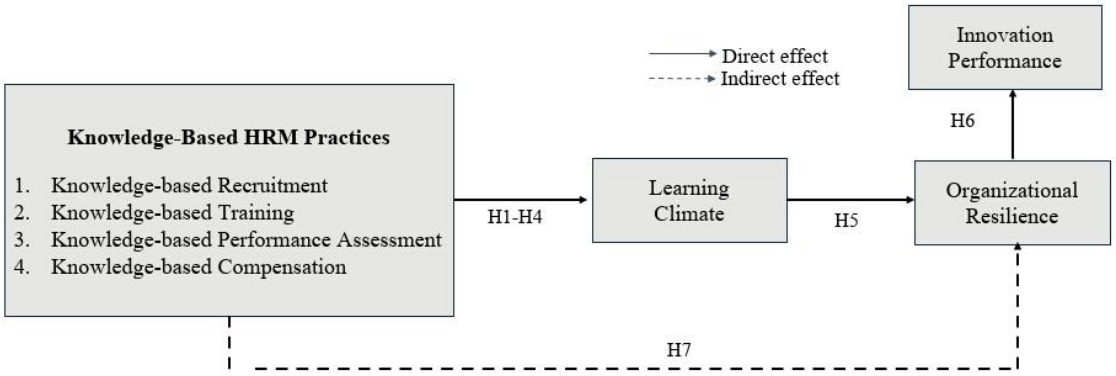

Figure 1. Conceptual Model

2.5 CHAPTER SUMMARY

In a nutshell, this chapter explains all the relevant variables of this research. The chapter offers a detailed explanation of the stimulus-organism-response model and its relevance into this study. The chapter moves forward to explain the relationship between variables based on which hypotheses were formulated and a conceptual framework was drawn. Each of the hypotheses was also explained in light of the stimulus-organism-response model. The chapter subsequent to this elaborates on the methodology that has been utilized to test the hypotheses.

CHAPTER 3

METHODOLOGY

3.0 CHAPTER INTRODUCTION

This chapter focuses on research methodology. This chapter outlines the research design, population, and sampling technique. This is followed by an overview of the questionnaire design, instrument validity, and instrument language. Following that, the chapter discusses the outcomes of pretesting and the pilot study. The final section of the chapter outlines the adherence to ethical considerations.

3.1 RESEARCH DESIGN

3.1.1 Research Philosophy

Research methods can be outlined, analyzed, and grouped into distinct levels, the most basic of which is philosophical (Clark, 1998). Philosophical dimension of research method emphasizes on notions relevant to the general aspects of the world, incorporating factors such as the mind, matter, reason, and evidence for knowledge (Clark, 1998; Blackburn, 1994). One such philosophy is referred to as positivism. Per Saunders et al. (2012), positivism's philosophical stance mirrors the standpoint of a natural scientist. It ensures concise and accurate knowledge (Saunders et al., 2019). The term positivism underscores the value of what is posited - i.e. "given" (Saunders et al., 2019). This outlines the positivist emphasis on a strict empirical scientific method aimed at generating data and facts free from human interpretation and bias (Saunders et al., 2019). According to Saunders et al. (2019), it was outlined that positivist researchers may use current theories to formulate hypotheses.

In the context of this research, the philosophical framework lies in positivism. The present research has utilized a survey questionnaire to collect data. Such an approach ensures objectivity i.e., it is uninfluenced by the researcher's prejudice. This is followed by application of sophisticated software to analyze the data gathered, thereby ensuring that the results were free from human error and demonstrated the one true reality. The data retrieved was to test and confirm the hypotheses developed for this study.

3.1.2 Quantitative research

Quantitative study has been described as a mechanism for testing objective theories by investigating the relationship between variables or comparative analysis between groups (Creswell& Creswell, 2023). Quantitative research is contingent upon deductive reasoning or deduction (Sekaran & Bougie, 2010; Khalid et al., 2012). In quantitative research, the standard research design is often utilized where the emphasis of the study is to describe, explain, and forecast phenomena (Cooper & Schindler, 2006; Khalid et al., 2012). Additionally, it employs probability sampling and typically necessitates substantial sample sizes in comparison to qualitative research design (Cooper & Schindler, 2006; Khalid et al., 2012). Through application of particular methodologies and techniques, quantitative research quantifies the relationship between variables in measurable terms (Khalid et al., 2012).

This method usually begins with a particular theory, either proposed or previously formulated which results in hypotheses that are assessed through quantitative measure and are subjected to rigorous scrutiny (Swanson & Holton, 2005). This is then evaluated per standard research protocols (Swanson & Holton, 2005). Quantitative research methods are notably strong at evaluating a sizeable group of individuals and making generalizations from the sample under investigation and extending it to groups beyond the sample (Swanson & Holton, 2005). In the context of this research, a quantitative approach was undertaken to study the relationship between knowledge-based human resource management practices, learning climate, organizational resilience, and innovation performance as has been depicted in Figure 1.

3.1.3 Survey research

The data was gathered through a survey questionnaire which is a popular method of collecting data in management research. A survey design offers a quantitative description of patterns, attitudes, and opinions of a population by investigating a representative sample of that population (Creswell, 2009). This approach is frequently used when it is necessary to standardize the data of a sizable number of respondents (Saunders et al., 2019). It will ensure that the data is collected in a standardized manner (Roopa & Rani, 2012). It has been defined as, “a list of mimeographed or printed questions that is completed by or for a respondent to give his opinion” (Roopa & Rani, 2012, p. 273).

3.2 POPULATION AND SAMPLING

3.2.1 Target Population

The data was collected from three-four- and five-star hotels in Pakistan. Prior literature indicates that data has been collected from three-four-and five-star hotels in the context of human resource practices, indicating a presence of established human resource management practices in the said hotel categories (Arasli et al., 2006; Chand & Katou, 2007; Lucas et al., 2004). The hotels were determined from the list provided by Pakistan Hotel Association (PHA). Additionally, websites such as Booking.com, Expedia, TripAdvisor, Trip.com, and others were also referred to determine the category of the hotels. This study collected data from professional workers within the hospitality sector. Since, the primary purpose of this paper is to evaluate the organizational resilience; it makes sense to include professionals from all the departments in the hotels as their collective effort would contribute towards building organizational resilience.

3.2.2 Unit of analysis

Unit of analysis is defined as, "the person or object from which the business researcher collects data" (Kumar, 2018, p. 70). Unit of analysis is paramount for research. During the problem definition stage of the study, one must not disregard the significance of identifying the unit of analysis (Zikmund et al., 2009). A researcher who will not be able to define the research problem, he will not be able to formulate hypotheses, he will not be able to decide on the sampling technique, he will not be able to select an appropriate instrument for data collection, he will be unclear on the data analysis mechanism, and the results will not have external validity; this occurs due to lack of clarity regarding the unit of analysis (Kumar, 2018). For this research, individual level unit of analysis was considered because the study was investigating the employees' perception regarding the knowledge-based human resource management practices.

3.2.3 Sampling technique

This study employs non-probability sampling techniques. Non-probability sampling which is often referred to as non-random sampling, offers a spectrum of techniques to choose samples,

the majority of which encompasses an aspect of subjective judgment (Saunders et al., 2019). Such a sampling technique is most appropriate when the aim is to test the proposed theoretical assumptions (Hulland et al., 2017; Memon et al., 2020).

A combination of purposive and snowball sampling was employed when collecting data.

i. Purposive Sampling

Purposive sampling is employed when data is collected from select cases which will enable the researcher to acquire the research objectives (Saunders et al., 2019). The purposive sampling approach was utilized, with inclusion criteria defined before data collection. Respondents were required to work in the hotel industry, possess a minimum of 1 year of experience in their current organization, hold an undergraduate degree as their minimum education level, and hotels should fall under three-, four-, and five-star category.

ii. Snowball sampling

Snowball sampling is suitable when it is difficult to access the desired population and they can be best approached through referral systems (Babbie, 2007; Cooper & Schindler, 2011). Snowball sampling was employed to reach initial seed participants. Both online and face-to-face approaches were concurrently employed to enhance the response rate. Upon visits to the hotels, the HR managers were requested to further distribute the questionnaires to the hotel professionals who worked at different shifts. Moreover, the HR managers facilitated introductions to HR professionals in other hotels where they were requested to circulate the survey amongst the hospitality professionals who were not available at the time. Additionally, the hotel professionals that were contacted online were requested to share the questionnaire with their colleagues and to share it with professionals in other hotels.

3.2.4 Sample size

It is usually crucial to have sampling strategy as it is not feasible to gather data from all units within a population (Kumar et al., 2013; Sekaran, 2003). In the context of this study, a sample size between 160 and 300 was considered a fitting range. Memon et al. (2020) suggested that the stated range (160-300) is most suited for multivariate statistical analysis

such as PLS-SEM. For this study, a total of 219 responses were gathered which is a sufficient sample size based on the aforementioned criteria.

3.3 QUESTIONNAIRE DESIGN

3.3.1 Instrument

A five-point Likert scale was used to obtain responses. The questionnaire contained two main sections. The first part comprised of demographic questions while the second part contained questions relevant to the constructs. The items in the questionnaire were adapted relevant to the objectives of the study.

i. Knowledge-based human resource management practices

A 13-item scale for knowledge-based human resource management practices was adapted from Kianto et al. (2017). Knowledge-based human resource management practices include knowledge-based recruitment, knowledge-based training, knowledge-based performance assessment, and knowledge-based compensation.

a. Knowledge-based recruitment

For *knowledge-based recruitment*, a 3-item scale was adapted (Kianto et al., 2017). The variable has been defined as, “an explicit and strong emphasis on selecting candidates with pertinent networking, learning and knowledge capabilities" (Al-Tal & Emeagwali, 2019, p. 08). A sample item: "When recruiting, my organization pays special attention to hotel relevant expertise". The composite reliability for knowledge-based recruitment was 0.806 (Kianto et al., 2017).

b. Knowledge-based training

For *knowledge-based training,* a 4-item scale was adapted (Kianto et al., 2017). The construct has been defined as, “regular development of employees’ expertise and knowledge comprehensively, by personalizing training to fit employees’ peculiar needs and ensuring a continuous development” (Al-Tal & Emeagwali, 2019, p. 08). Sample item: "My

organization offers opportunities to deepen and expand expertise relevant to hotel industry". The composite reliability for knowledge-based training was 0.910 (Kianto et al., 2017).

c. Knowledge-based performance assessment

For *knowledge-based performance assessment*, a 3-item scale was adapted (Kianto et al., 2017). The construct has been defined as, "evaluation of employees based on their contribution and involvement in improving the organization's knowledge process e.g., knowledge creation, sharing and application" (Al-Tal & Emeagwali, 2019, p. 08). Sample item: "In my hotel, the sharing of knowledge is one of the criteria for work performance assessment". The composite reliability for knowledge-based performance assessment was 0.896 (Kianto et al., 2017).

d. Knowledge-based compensation

For *knowledge-based compensation*, a 3-item scale was adapted (Kianto et al., 2017). The construct has been defined as, "recompensing employees based on their contributions to the organization's key knowledge process involving knowledge creation, sharing and application" (Al-Tal & Emeagwali, 2019, p. 08). Sample item: "My hotel rewards employees for sharing knowledge". The composite reliability for knowledge-based compensation was 0.930 (Kianto et al., 2017).

ii. Learning climate

For *learning climate*, a 5-item scale was adapted from Wang (2015) to measure employees' perception of organizational learning climate. Learning climate refers to "employees' perceptions of organizational policies, and practices aimed at facilitating, rewarding and supporting employee learning behavior" (Nikolova et al., 2014, p. 259). A Sample item: "In my hotel, we have the opportunity to learn new skills and knowledge". The Cronbach alpha was 0.85 for learning climate (Wang, 2015).

iii. Organizational resilience

For *organizational resilience*, a 7-item scale was adapted from Al-Omoush et al. (2023) to measure organizational resilience. Organizational resilience refers to, "pre-event readiness for

a disruptive event, post-event response for appropriate and timely recovery, and creative renewal capacity though improvisation" (Kantur &İşeri-Say, 2012, p. 764). Sample item: "My hotel has the ability to restructure itself in responding to crises". The Cronbach alpha was 0.870 for organizational resilience(Al-Omoush et al., 2023).

iv. Innovation performance

For *innovation performance*, 06-item scale was adapted from Zhang et al.(2020) to measure innovation performance. Innovation performance refers to, “successful outcomes achieved through the development and/or significant improvement of products, processes and markets” (Zhang et al., 2020, p. 257). A Sample item: "My hotel has successfully developed and/or introduced new services". The Cronbach alpha was 0.891 for innovation performance (Zhang et al., 2020).

Composite reliability was above 0.8 for knowledge-based human resource management practices as recommended by Nunnally (1978) to test the reliability of the instrument. The Cronbach alpha reliability score for the above-mentioned scales were as per the given guidelines of Hair et al. (2019) (0.70), thereby making the scales suitable for further analysis.

3.4 INSTRUMENT VALIDATION

A valid questionnaire allows for the collection of accurate data that precisely measures the concerned concepts (Saunders et al., 2019).To ensure the validity of the instrument, it was checked for internal validity and content validity.

3.4.1 Internal validity

Internal validity, sometimes referred to as measurement validity, is the ability of the questionnaire to measure what one intends to measure (Saunders et al., 2019). It is the degree to which an independent variable can be truly attributed to any variation in the dependent variable (Zikmund et al., 2009). Researchers validate the responses by seeking for evidence supporting the answers, relevance being contingent upon the research questions and their own judgment (Saunders et al., 2019). For the current study, internal validity was achieved by

ensuring that the research objectives were aligned with questions in the questionnaire i.e., the questionnaire was reflective of the research objectives and questions.

3.4.2 Content validity

Content validity is the extent to which items provide sufficient coverage to the variable in content and scope (Johnston et al., 2014). There are two ways to achieve content validity. The first one involves the definitions of research by analyzing the literature and discussing it with others while the second one encompasses using a panel to evaluate whether each item in the questionnaires is essential, useful but not essential, or not necessary (Saunders et al., 2019).

In the context of this research, the literature was extensively reviewed for the definition of each construct. Additionally, the instrument was assessed by various experts in the field. The questionnaire was evaluated by the Professor of Knowledge Management and HR at Universiti Teknologi Malaysia. In addition to that, the questionnaire was examined by two Assistant Professor from the Department of Management and HR at NUST Business School. After thorough examination of the definitions and the evaluation of each item in the questionnaire, the instrument was approved for data collection.

3.5 INSTRUMENT LANGUAGE

The instrument was administered in English language. There were two primary reasons to opt for such an approach. First, the demand of the present study was that the respondents should at least possess a Bachelor's degree which then enabled them to understand the instrument with no obvious issues. Second, the professional employees within the hospitality sector were required to be well-versed in English language as they had to interact with foreigners on a daily basis. This also enabled the researcher of this study to utilize English language for the instrument. Additionally, the instrument was pre-tested to account for any such problems. No significant issues regarding language were reported.

3.6 PRETESTING

Before the data was officially gathered, a pre-test was conducted. The primary objective was to ensure that “a) the wording of the questions is correct, b) the sequence of questions is

correct, c) the respondents have clearly understood all the questions, d) additional questions are needed or some questions should be eliminated, and, e) the instructions are clear and adequate" (Kumar et al., 2013; Memon et al., 2017, p. 05). It was suggested by Willis (2005) that sample size ranging from 5 to 15 is sufficient for pre-testing.

In the context of this research, the pre-test was conducted on the professionals of the hotel industry. Cognitive method was employed to pre-test the questionnaire. In cognitive interviews, the respondents are asked to think aloud which means that they articulate their thought processes, express their emotional reactions, and provide judgments regarding their confidence in interpreting the meaning of the survey questions (Fisher, 2020). Cognitive interviews are also conducted to ensure that the items are clearly understood, the questions are not uncomfortable in nature, and to evaluate the drop-out risk (Fisher, 2020). It was revealed that the items in the questionnaire were not of an ambiguous nature as the respondents were able to understand it clearly. Additionally, through cognitive interviews, it was made sure that the questions were not uncomfortable in nature. Finally, too much effort was not expended in answering the questions, so it was also confirmed that the drop-out risk was not a significant issue.

3.7 PILOT STUDY

To ensure that full scale study was carried out successfully, a pilot test was conducted. The central aim of conducting a trial version was to ascertain that the research instruments are sufficient, to ensure the viability of a full-scale research project, to test the practicality and feasibility of the research protocol, to highlight any logistics related concerns, to gather preliminary data, andto establish a sample size (Memon et al., 2017). It was suggested by Cooper & Schindler (2011) that a sample size of 25 to 100 is sufficient for pilot testing. This study utilized a sample size of 30 for pilot testing.

In the context of this research, a small-scale study was conducted on 30 professional workers from the hotel sector. The reliability of the instrument was confirmed through testing for Cronbach alpha where the alpha values were above the recommended value of Hair et al. (2019). The composite reliability values indicated that knowledge-based recruitment (0.853), knowledge-based training (0.854), knowledge-based performance assessment (0.871), knowledge-based compensation (0.932), learning climate (0.859), organizational resilience

(0.890), and innovation performance (0.905) had values above 0.8, thus confirming a reliability of the scales used in the present study.

3.8 TIME HORIZON

For this study, a cross-sectional design was employed. Cross-sectional technique is utilized by empirical researchers at one point in time to describe the target population (Cummings, 2018).

3.9 QUESTIONNAIRE ADMINISTRATION

3.9.1 Online data collection

Online medium i.e., LinkedIn was used to collect data from numerous three-, four-, and five-star hotel employees. LinkedIn has been utilized previously to collect data in the context of organizational resilience (Beuren et al., 2022). The respondents' LinkedIn profiles were assessed to determine their suitability for the current study. A message was sent to each potential respondent, outlining the purpose of the study. Additionally, a Google Form containing survey questionnaire was attached. Respondents were kindly asked to share the survey with colleagues in their own organization or other organizations within the industry. Further, several General Managers and HR Managers were also approached, requesting their permission to conduct the survey within their firms. The study was able to collect 163 responses obtained through LinkedIn.

3.9.2 Face-to-face data collection

Data collection also included a face-to-face approach, involving visits to several hotels in person. Prior to these visits, permission was sought from the HR departments of the respective organizations. Upon arrival, the study's objectives were explained to potential respondents. Upon obtaining their consent, the questionnaire was administered. Given that hotel staff members worked various shifts, HR managers were requested to distribute the survey to those who were not present during the initial visit. Consequently, some survey

questionnaires were returned during a second visit. This study was able to collect 56 responses by visiting the organizations. In total both approaches yield 219 numbers.

3.10 INITIAL SCREENING

The general criteria to become a respondent to this research was ensure that a) the respondent was from the hotel industry, b) the hotel would fall into three-four-and five-star category, c) the participant has at least 16 years of education and, d) the respondent has at least one year of experience. In addition to that, a filter question was added to determine if the respondent was from hotel industry or other industry. The respondents who did not fulfill the criteria were immediately excluded. Initially, data was collected from 232 respondents. 13 responses were removed as they did not meet the above stated criteria, resulting in 219 viable responses.

3.11 ETHICAL CONSIDERATIONS

Saunders et al. (2019) has outlined a number of ethical issues that occur during data collection or designing of research. This research takes any or all ethical considerations seriously and will ensure absolute compliance at every stage of the study.

i. Avoidance of harm (non-maleficence)

This principle dictates that harm to the respondents must be avoided. Saunders et al. (2012) has described harm as potential risks to mental well-being, physical well-being, and emotional well-being. As such, this research declares that it did not partake in any research method which can potentially lead to embarrassment, stress, anxiety, discomfort, pain, conflict, harassment, and discrimination. Moreover, the researcher observed total confidentiality and anonymity of the respondents to avoid any research induced distress.

ii. Voluntary nature of participation and right to withdraw

According to this principle, the respondents have the right not to participate in the research and this right is unquestionable (Saunders et al., 2019). As such, the researcher abided by this

principle by respecting the entitlement a respondent held to refuse participation. Additionally, the researcher acknowledged and accepted the right of a respondent to decline answering question/questions, to deny provision of any requested data, to withdraw from participation, and to retract their responses.

iii. Informed consent of those taking part

According to this principle, researchers must provide sufficient information to the respondents and must explain the implications for participating in the research (Saunders et al., 2019). As such, the researcher ensured that the respondents were fully aware of the objectives and potential ramifications of this study, allowing the respondents to make an informed decision regarding their participation. In addition to that, the researcher also guarantees that respondents were not subjected to any form of coercion or intimidation. The researcher observed strict compliance to collect data from the agreed upon parameters and not demand for any supplementary information without seeking permission of the respondent.

iv. Ensuring confidentiality of data and maintenance of anonymity of those taking part

According to this principle, the purpose of conducting research is to answer questions such as, 'who', 'what', 'when', 'where' 'how', and 'why'; it should not concern itself with who provided the data. Therefore, by conforming to this principle, the researcher warrants that the names of the individuals and the identities of the organizations in the hospitality sector remained anonymous for this thesis. As highlighted by Saunders et al. (2019), the reliability of the data is improved when confidentiality is observed. As such, this research aimed to achieve highly reliable results and for this purpose confidentiality was maintained stringently.

v. Compliance in the management of data

According to this principle, governments have certain legislations to regulate the processing, security, and sharing of personal data, deeming it necessary for researchers to follow such legislations when conducting research (Saunders et al., 2012). According to the Personal Data Protection Bill 2021, section 5(5.1), "a data controller shall not process personal data including sensitive personal data of a data subject unless the data subject has given his consent to the processing of the personal data. A separate consent shall be obtained from the

data subject for each purpose" (GoP, 2021). The researcher of this study ensured complete adherence to this legislation issued by the Government of Pakistan.

3.12 CHAPTER SUMMARY

This chapter elaborates on the systematic steps undertaken to conduct the current research. The chapter provides an overview of the research philosophy undertaken to administer this study. It further describes the population and sampling techniques utilized in the study. The chapter also provides a detailed description of the questionnaire design, the mechanism used to validate the instrument, and the language utilized in administering the instrument. Furthermore, it discusses how the pre-testing and pilot study was conducted which is followed by an overview of how the data was collected for this research. Finally, the chapter also highlights the ethics and morals that were adhered to during the course of this study. The next chapter highlights how the data was analyzed and the resultant findings of the study.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.0 CHAPTER INTRODUCTION

This chapter provides a detailed explanation for how the data was analyzed and presents the results of the study. The chapter gives an overview of the demographic population and highlights the findings from the measurement model and structural equation model as a result of hypotheses testing.

4.1 DEMOGRAPHIC INFORMATION

Table 1 provides the demographic details of the respondents involved in the study.

4.1.1 Gender

The majority of the respondents were males (90.4%) while the female responses were fewer (9.6%). This was expected given that the hotel industry is male-dominated (Fatima et al., 2015). According to International Labor Organization (2023), females (15-24 years) account for 22.3% while males within the same age group account for 64.5% of the total workforce. On the other hand, females (25 years+) account for 25.6% while the males account for 88.5% of the total workforce. It has also been indicated by previous studies that there were fewer females as opposed to men in the hotel industry of Pakistan (Butt et al., 2024; Barkat et al., 2023; Tajdar et al., 2023).This explains the less participation of women in this study as opposed to men.

4.1.2 Age

Most of the respondents were between 25-35 years (50.7%). This can be attributed to the fact that Pakistan has the youngest population in the world where 64% of the individuals are between 15 and 29 years of age out of which 41.6% represent the total labor force of the country (Nadeem 2021; Iqbal et al., 2023). Respondents in the age group ranging from 18-24

accounted for 19.2% of the total responses while respondents in the age group ranging from 36-50 accounted for 24.2% of the population. Additionally, a very small percentage of age groups ranging from 51-64 and above 65 years accounted for 5.5% and 0.6 % of the total responses, respectively. Respondents below the age of 18 were not considered for this research.

4.1.3 Qualification

The respondents (47.0%) had an undergraduate degree as their minimum level of qualification. The respondents (47.0%) of this study had masters as the highest level of education. It was found that respondents (5.9%) had a professional certification relevant to hospitality. None of the respondents held a PhD. Additionally, respondents with matriculation and intermediate were excluded as it did not fit the inclusion criteria.

4.1.4 Experience

The majority comprised 28.3% of the respondents with experience of 3-5 years. This was closely followed by 25.6% of respondents with experience of 1-2 years. Additionally, respondents with 6-10 years of experience constituted 23.3% of the responses. This was followed by respondents having a notable experience of 11-15 years and above 15 years which accounted for 12.3% and 10.5% of the total responses, respectively. Respondents with less than one year of experience were not considered as they did not fit the inclusion criteria.

Table 1. Demographic information (n = 219)

Variable	**Category**	**Frequency**	**Percent**
Gender	Male	198	90.4%
	Female	21	9.6%
Age	Less than 18	0	0.0%
	18-24	42	19.2%
	25-35	111	50.7%
	36-50	53	24.2%
	51-64	12	5.5%
	65 and above	1	0.5%
Highest	Matriculation	0	0.0%

Qualification	Intermediate	0	0.0%
	Undergraduate	103	47.0%
	Masters	103	47.0%
	PhD	0	0.0%
	Professional Certification	13	5.9%
Experience	Less than a year	0	0.0%
	1-2 years	60	25.6%
	3-5 years	62	28.3%
	6-10 years	51	23.3%
	11-15 years	28	12.3%
	Above 15 years	23	10.5%

4.2 MULTICOLLINEARITY

The purpose of assessing multicollinearity is to assess whether predictor concepts i.e., the independent variables are strongly correlated. This is to avoid unreliable results in the regression analysis (Hair et al., 2019). Variance Inflation Factor (VIF) is calculated to analyze if collinearity can be a potential problem. The ideal value should less be than 5(Hair et al., 2010). However, values above 5 can imply that collinearity is an issue. The results indicate that the predictor variables have demonstrated acceptable values - knowledge-based recruitment (1.607), knowledge-based training (2.120), knowledge-based performance assessment (1.919), knowledge-based compensation (1.684), and learning climate (1.072).

4.3 COMMON METHOD BIAS

This research took a number of approaches to reduce the common method bias (Memon et al., 2023; Podsakoff et al., 2003). First, to ensure that the effect of common method bias was minimized, a cover letter was attached to the questionnaire where it was assured to the respondent that their responses will be kept confidential and anonymous. Second, the participation was strictly voluntary. Third, in the cover letter, it was clearly stated that any respondent may withdraw at any point during the study. Fourth, to ascertain that the items within the questionnaire were clear, a pre-test was conducted. Finally, to avoid the social

desirability bias, the researcher ensured that the data was not collected through managers or supervisors.

Following the data collection, the study applied Harman's Single factor (Harman, 1967) to check for the similarity index. The study obtained a 14% of the variance which fulfils the threshold criteria of less than 40% (Fuller et al., 2016). Therefore, it is concluded that common method bias had no significant impact on the results of this study.

4.4 STRUCTURAL EQUATION MODELING

Partial Least Squares Structural Equation Modeling (PLS-SEM) will be employed to analyze the data collected. It has been suggested that PLS-SEM is suitable for models with several constructs and indicators (Hair et al., 2017; Memon et al., 2017). There are primarily two steps to evaluate the results when using PLS-SEM. Firstly, the measurement models are examined and secondly, the structural model is assessed (Hair et al., 2017). The second step will take place only if the criteria in the first step are fulfilled (Hair et al., 2017).

4.5 MEASUREMENT MODEL ASSESSMENT

This paper utilizes partial least squares structural equation modeling (PLS-SEM) to test measurement model and structural model. Within the measurement model internal consistency reliability, convergent validity and discriminant validity were assessed.

4.5.1 Internal consistency reliability

Internal consistency reliability evaluates the degree to which the items reflect the underlying constructs; as such, internal consistency reliability can be quantified by using composite reliability (CR) (Richter et al., 2016). The rule of thumb is that values between 0.60 and 0.70 are acceptable in exploratory research, values ranging from 0.70 to 0.90 are also considered satisfactory to good. However, if the values increase from 0.95, it reduces the validity of the variable (Diamantopoulos et al., 2012). The findings of this study indicate that all the variables have a shown a satisfactory CR - knowledge-based recruitment (0.853), knowledge-based training (0.854), knowledge-based performance appraisal (0.871), knowledge-based

compensation (0.932), learning climate (0.859), organizational resilience (0.890), innovation performance (0.905). The results are presented in Table 2.

4.5.2 Convergent validity

Convergent validity is to evaluate if the items are all correlated to the same construct. To achieve this, the average variance extracted (AVE) is assessed for all the items within a construct. The rule of thumb suggests a minimum of 0.50 or higher (Hair et al., 2019). For this research, convergent validity was evaluated by assessing the outer loading of the indicators and their AVE as is shown in Table 2. A high outer loading indicates that the indicator is highly representative of the construct. A useful guideline is that the outer loading of an indicator should be higher than 0.708. Even though the loading of LC1 (0.678), OR4 (0.639), OR5 (0.651), and IP5 (0.662) were lower than threshold value; they were maintained as the other items of the construct had higher scores. Also, the AVE values are above the threshold (0.50) as specified by (Hair et al., 2017). These values confirm the convergent validity of the measurement model. The results are presented in Table 2.

Table 2. Measurement Model

Constructs	**Items**	**Loadings**	**AVE**	**CR**	**VIF**
Knowledge-based recruitment	RS1	0.798	0.659	0.853	1.607
	RS2	0.856			
	RS3	0.780			
Knowledge-based training	TD1	0.716	0.595	0.854	2.120
	TD2	0.761			
	TD3	0.850			
	TD4	0.752			
Knowledge-based performance assessment	PA1	0.819	0.693	0.871	1.919
	PA2	0.863			
	PA3	0.815			
Knowledge-based compensation	C1	0.915	0.820	0.932	1.684
	C2	0.927			
	C3	0.874			
Learning climate	LC1	0.678	0.551	0.859	1.072

	LC2	0.707		
	LC3	0.799		
	LC4	0.716		
	LC5	0.802		
Organizational resilience	OR1	0.753	0.539	0.890
	OR2	0.731		
	OR3	0.765		
	OR4	0.639		
	OR5	0.651		
	OR6	0.778		
	OR7	0.807		
Innovation performance	IP1	0.785	0.615	0.905
	IP2	0.828		
	IP3	0.826		
	IP4	0.802		
	IP5	0.662		
	IP6	0.790		

4.5.3 Discriminant validity

Discriminant validity is "the extent to which a construct is truly distinct from other constructs by empirical standards" (Hair et al., 2014, p.104). This implies the degree to which the construct is different from other constructs. This is evaluated through Heterotrait-Monotrait ratio (HTMT) (Henseler et al., 2015). This mechanism of measuring discriminant validity is deemed to be the most conservative way of assessing as opposed to the other methods (Henseler et al., 2015). It is the "ratio between-trait correlations to the within-trait correlation" (Hair et al., 2017, p.118). The rule of thumb is that values above 0.9 would suggest that discriminant validity is not present (Henseler et al., 2015). If the value of HTMT does not exceed 0.85, then discriminant validity is accomplished (Kline, 2011). According to Gold et al.(2001) & Teo et al. (2008), if the value does not exceed 0.9, it is still acceptable. As represented in Table 3, the constructs possess discriminant validity, which implies that they have passed the HTMT criterion.

Table 3. Discriminant validity

	IP	KBC	KBPA	KBR	KBT	LC	OR
IP							
KBC	0.565						
KBPA	0.500	0.687					
KBR	0.570	0.440	0.671				
KBT	0.580	0.671	0.784	0.766			
LC	0.729	0.767	0.703	0.418	0.735		
OR	0.779	0.528	0.627	0.482	0.520	0.757	

Note: Discriminant validity is established at HTMT 0.85 (Kline, 2011)

Note: Knowledge-based recruitment (KBR), Knowledge-based training (KBT), Knowledge-based performance assessment (KBPA), Knowledge-based compensation (KBC), Learning climate (LC), Organizational resilience (OR), Innovation Performance (IP)

4.6 STRUCTURAL MODEL

When the results of the measurement model meet the necessary criteria, then it qualifies for the assessment of structural model. To estimate the statistical significance of a parameter, the bootstrapping technique was employed. This involved generating 10,000 subsamples of the original data for direct and indirect relationships. As represented in Table 5, hypotheses were tested using path-coefficients (β), *t*-statistics, and significance (ρ). The results were within the given guidelines of Henseler et al.(2009).

4.6.1 Hypothesis testing (Direct)

The results indicated that H1 is not supported as knowledge-based recruitment does not have a significant positive association with learning climate (H1, β = -0.082, t = 1.004, ρ = 0.158). The second hypothesis, H2, is confirmed as knowledge-based training has a significant positive association with learning climate (H2, β = 0.294, t = 3.457, ρ = 0.000). Furthermore, knowledge-based performance assessment has a significant positive association with learning climate (H3, β = 0.185, t = 2.178, ρ = 0.015), indicating that H3 is also supported. Moreover, the results provide support for H4 as knowledge-based compensation has a significant positive association with learning climate (H4, β = 0.410, t = 5.495, ρ = 0.000). The analysis provide confirmation for H5 as learning climate has a significant positive association with

organizational resilience (H5, β = 0.629, t = 13.096, ρ = 0.000). The data validates H6 as organizational resilience has a significant positive association with innovation performance (H6, β= 0.660, t = 14.991, ρ = 0.000).

4.6.2 Hypothesis Testing (Mediation)

The mediation analysis was performed to test for H7, which hypothesized the mediating effect of learning climate between knowledge-based human resource management practices and organizational resilience. Latent scores were calculated to convert individual knowledge-based human resource management practices (knowledge-based recruitment, knowledge-based training, knowledge-based performance assessment, and knowledge-based compensation) into a composite construct. To investigate the mediation effect, the Preacher & Hayes (2008) indirect effect approach was employed. The results of the indirect effect indicate that knowledge-based human resource management practices have a significant indirect effect on organizational resilience (H7, β = 0.433, t = 9.289, ρ = 0.000) through learning climate. The results are represented in Table 4.

Table 4. Hypotheses testing

Hypotheses	**Beta**	**SD**	**T values**	**P values**	**CI LL**	**CI UL**	**Decision**
KBR -> LC	-0.082	0.082	1.004	0.158	-0.222	0.047	Not Supported
KBT -> LC	0.294	0.085	3.457	0.000	0.145	0.426	Supported
KBPA -> LC	0.185	0.085	2.178	0.015	0.043	0.322	Supported
KBC -> LC	0.410	0.075	5.495	0.000	0.294	0.541	Supported
LC -> OR	0.629	0.048	13.096	0.000	0.538	0.697	Supported
OR -> IP	0.660	0.044	14.991	0.000	0.579	0.725	Supported
KBHRMPs -> LC -> OR	0.433	0.047	9.289	0.000	0.331	0.515	Supported

Note: Knowledge-based human resource management practices (KBHRMPs), Knowledge-based recruitment (KBR), Knowledge-based training (KBT), Knowledge-based performance assessment (KBPA), Knowledge-based compensation (KBC), Learning climate (LC), Organizational resilience (OR), Innovation Performance (IP)

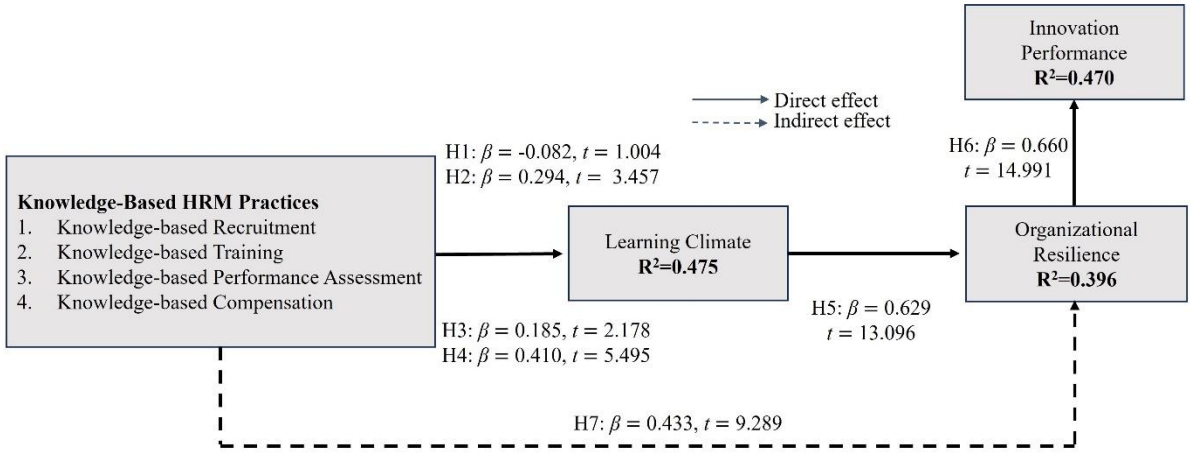

Figure 2. Structural Model

4.6.3 Coefficient of determination and effect size

The coefficient of determination (R^2) and the effect size were also examined. As per Hair et al. (2014), R^2 shows the predictive accuracy of the model. According to the guidelines of Cohen (1988), R^2 is considered large (0.26), medium (0.13), and small (0.02). The results for this study outline that R^2 is large for learning climate (0.475), innovation performance (0.470) and organizational resilience (0.396), thus confirming a substantial predict power of the model.

Effect size ($f^{2)}$ has been defined as "the change in the R^2 when a specified exogenous construct was omitted from the model which could be used to evaluate whether the omitted construct had a substantive impact on the endogenous variable" (Hair et al., 2014, p.177). It has been suggested that the values for f^2 are large (0.35), medium (0.15), and small (0.02) (Cohen, 1988). The results for this study highlight that knowledge-based recruitment (f^2 = 0.009) does not contribute to the learning climate whereas knowledge-based training (f^2 = 0.085) and knowledge-based performance assessment (f^2 = 0.037) have a small effect on the learning climate. Further, knowledge-based compensation (f^2 = 0.208) has a medium effect on learning climate. Importantly, both learning climate (f^2 = 0.547) on organizational resilience as well as and organizational resilience (f^2 = 0.89) on innovation performance have a large effect size.

4.7 CHAPTER SUMMARY

In conclusion, this chapter presents the results of the study. It was revealed that amongst direct relationships, knowledge-based recruitment and its impact on the learning climate had no effect. However, the remaining direct relationships did have a significant impact. It was also confirmed that the relationship was mediated by learning climate. The next chapter provides a detailed explanation for all the results. It also highlights the managerial and theoretical implications of the study. Additionally, it also touches upon the limitations of the study and suggestions have been provided for future researchers to investigate further upon the topic.

CHAPTER 5

DISCUSSION, IMPLICATIONS, AND CONCLUSION

5.0 CHAPTER INTRODUCTION

This chapter provides a recap of the objectives of the study, the hypothesis formulated, and the subsequent findings of the hypotheses. Moreover, the chapter offers a detailed discussion for the findings of the study with the justification from literature. The chapter further describes the theoretical contributions and managerial implications of the study. It then outlines the limitations and recommendations for future researchers.

5.1 RECAPPING

The first objective of this research was to examine knowledge-based recruitment and its impact on the learning climate. The results revealed that it did not have any effect on learning climate. Following that, the second objective of this study was to evaluate the impact of knowledge-based training. The results indicated a significant positive relationship. The third objective of this study was to investigate the impact knowledge-based performance assessment on learning climate. The findings highlighted a positive relationship. The fourth objective of this study was to analyze the knowledge-based compensation and its impact on the learning climate. The results revealed that there was a significant positive impact of knowledge-based compensation on learning climate. The fifth objective of this research was to examine the impact of learning climate on organizational resilience. The findings revealed a positive impact. The sixth objective of this study was to evaluate the impact of organizational resilience on innovation performance. It was found that it had a significant positive relationship. The final objective of this study was to investigate the mediating role of learning climate between knowledge-based human resource management practices and organizational resilience. The result indicated that learning climate mediated the relationship of knowledge-based human resource management practices and organizational resilience.

DISCUSSION OF FINDINGS

5.1.1 Hypothesis 1: Impact of knowledge-based recruitment on learning climate

Surprisingly, the findings of H1 suggest that knowledge-based recruitment does not influence the learning climate of the firm. The results contradicted the findings of similar studies in the past which reported a positive association between human resource management practices such as staffing and learning variables (Khandakar & Pangil, 2019; López-Cabrales et al., 2011). Knowledge-based recruitment has a focused approach of hiring individuals for their "pertinent networking, learning, and knowledge capabilities". However, the hospitality industry requires its employees to have a wide range of skills and competencies according to preferences of the guests and changing market dynamics. This is somewhat consistent with a study by Chand & Katou (2007) where it was highlighted that multi-skilling and experience is the primary focus within the hotel industry. Additionally, another study advocates for the soft people management skills and practical professional skills of the employees within the hospitality industry (Marneros et al., 2020). This implies that the skills and competencies of the hotel industry are of a diverse nature which is contradictory to the premise of knowledge-based recruitment. Consequently, the above argument explains the insignificant relationship between knowledge-based recruitment and learning climate.

5.1.2 Hypothesis 2: Impact of knowledge-based training on learning climate

The results of H2 indicate that knowledge-based training has a significant positive effect on the learning climate. This implies that employees, when offered training that caters to their needs, are more likely to contribute in the enhancement of learning climate within the organization. The provision of knowledge-based training can deepen and expand the competencies of the employees, ascertaining that the development of the employee is continuous. To remain up-to date with the relevant skills about the industry can boost the learning climate of the firm. Literature argues that training is associated with the sharing of knowledge (Tamsah et al., 2020). This can eventually enhance the learning atmosphere of the organization due to the acquisition and exchange of valuable information (Peng & Chen, 2023). The research findings of this study aligns with the results of Chahar et al. (2019), where the authors found that training and development led to enhanced learning capabilities, team work motivation, increased job confidence, and fostered a heightened sense of motivation to work. Thereby, it strengthens the argument that training employees for

improving their capabilities may create a climate of learning. Additionally, a study conducted by Cortini et al. (2016) emphasizes that employers' support for training and development is crucial for a conducive learning climate. The can be linked to the basic premise of learning climate which outlines the perception of an employee regarding the policies and practices within the organization that facilitates, rewards, and support employees (Daniëls et al., 2021; Nikolova et al., 2014), thereby the study of Cortini et al. (2016) makes it evident that employers' focus on the training and development may lead the employees to perceive that there is support and facilitation for learning in the organization. This can aid in fostering a learning climate. The results of the current study are aligned with the past literature which makes it evident that knowledge-based training has a positive impact on the learning climate.

5.1.3 Hypothesis 3: Impact of knowledge-based performance assessment on learning climate

The results of H3 indicate that knowledge-based performance assessment has a significant positive effect on the learning climate. This implies that sharing knowledge, creation of knowledge, and the ability to apply knowledge can promote a climate where employees are nurtured to think critically in order to solve problems. Including such a criterion in the performance appraisal form ensures that employees give importance to acquisition and exchange of knowledge to strengthen the learning climate of the organization. Additionally, feedback followed by performance appraisal can direct the behavior of employees to contribute to the knowledge processes of the organization. This, in turn, will foster a climate of learning. This is somewhat consistent with the past literature where it was found that an effective performance appraisal can promote knowledge sharing within the organization (Bednall et al., 2014). It was further pointed out that accurate outlook on their performance will increase their participation in the firm (Bednall et al., 2014). The study by Bednall et al. (2014) highlighted that by obtaining precise feedback regarding the their performance can foster a sense of confidence amongst the employees to make well-informed decisions about informal learning activities which could then enhance participation. Additionally, participation is also dependent upon the effective feedback from supervisors regarding development goals, mentoring, or suggestions for learning activities (Bednall et al., 2014). This may enable a learning climate in the organization as a result of increased participation. In line with this, one may conclude that it makes rational sense that knowledge-based performance assessment would naturally increase the learning climate of the organization

because the employees will be assessed on knowledge processes i.e., knowledge creation, knowledge exchange, and knowledge application. An assessment based on knowledge processes and the subsequent feedback may motivate the employees to increase their learning activities, ultimately promoting a learning climate.

5.1.4 Hypothesis 4: Impact of knowledge-based compensation on learning climate

The results of H4 indicate that knowledge-based compensation has a significant positive effect on the learning climate. This implies that rewards act as a motivator for employees to share, create, and apply knowledge in the firm, thereby enhancing their efforts to ensure a more conducive learning environment in the organization. Moreover, the satisfaction that employees derive from his/her compensation is then translated into favorable actions of collaboration and interaction amongst colleagues. This enhances the exchange of information, thereby enhancing the learning climate of the organization. This is consistent with previous studies where it was highlighted that individuals who are compensated fairly well tend to go out of their way to give back to the organization (Hong et al., 2012). Another study also supports this notion where it is found that a sound compensation guides the actions of employees (Gardiner et al., 2001). In the context of this study, the behavior is to promote a learning climate within the firm. In a similar vein, it is also highlighted that the rewards have a strong association to the values of the organization. Hence, in light of this research, an organization focused knowledge processes will be able to foster a strong learning climate provided they offer good compensation to employees (Gardiner et al., 2001). Furthermore, a study by Khandakar and Pangil, (2001) also found that compensation is a predictor for workplace learning. The stated study also outlined a research conducted by Camps and Luna-Arocas (2012) where it was revealed that compensation practices enhance learning. This can be attributed to the fact that compensation practices direct the behavior of employees towards outcomes desirable to the organization. An organization which would be focused on enhancing knowledge creation, knowledge exchange, and knowledge application can reward such a behavior by having attractive compensation packages. This, in turn, will enhance the learning climate of the organization, which is a claim supported by the results of the current study.

5.1.5 Hypothesis 5: Impact of learning climate on organizational resilience

The results of H5 indicate that learning climate has a significant positive effect on organizational resilience. This implies that through perpetual learning, organizations develop the ability to survive and thrive in turbulent times. Additionally, an organization focused on acquiring new skills, willing to experiment on viable options to find solutions to problems, and applying the knowledge they have learnt in training stands a better chance to survive in a high-pressure scenario. This is consistent with previous studies where it was highlighted that organizations utilize knowledge to learn from their positive and negative experiences in the past enabling them to develop resilience (Evenseth et al., 2022). The findings of another study also highlighted that organizations are more resilient when the human asset is willing to discuss and negotiate scenarios of any imminent threat (Lewis, 2013; Mousa et al., 2020). A study by Arfiansyah (2021) revealed that culture of an organization can enhance its resilience in the face of adversity. This was also corroborated by Parsons (2010) who outlined that culture and values of an organization are the pivotal factors in establishing organizational resilience (Arfiansyah, 2021). This can be linked to the results of the current study which supports that learning climate will have a positive impact on organizational resilience. An organization whose culture values knowledge creation, knowledge exchange, and knowledge application will be able to create a learning climate. Employees with relevant knowledge will be able to cope with the changing external business landscape, thereby shaping organizational resilience. Previous studies support the notion that knowledge can influence organizational resilience (Mafabi et al., 2012; Godwin and Amah, 2013; Fani and Hasan, 2015).

5.1.6 Hypothesis 6: Impact of organizational resilience on innovation performance

The results of H6 indicate that organizational resilience has a positive effect on the innovation performance. This implies that organizations that are able to cope in turbulent times are in a position to generate unique ideas for their business to grow, thereby increasing the innovation performance of the organization. Additionally, an organization which is resilient will have the capacity to expand its operations to new regions, enabling the firm to grow even in times of uncertainty. This is consistent with previous literature where Richtnér & Löfsten (2014) found that the creativity can be enhanced through developing a capacity for resilience within the firm. Further, a similar study by Do et al. (2022) whose outcome is also aligned with this study has argued that a resilient and innovative organization go hand in

hand. Research by Asare-Kyire et al. (2023) revealed that firms that are resilient are more inclined to engage in innovative practices. Firms that have achieved resilience are better equipped to recognize and react to shifts in the markets, overcome challenges, innovate product and services that caters to the needs of the customers (Asare-Kyire et al., 2023). This is also consistent with prior study which has found that resilient firms are better able to react to changes in the market and adjust to new conditions (Lengnick-Hall et al., 2011; Masten, 2018). This is aligned with the results of the current study which found that organizational resilience has a positive impact on innovation performance. This can be attributed to organizational resilience being the key component to innovation as it provides the essential support to cope with high-risk circumstances and to survive in turbulent times.

5.1.7 Hypothesis 7: Mediating role of learning climate

The results of H7 indicate that learning climate mediates the relationship between knowledge-based human resource management practices and organizational resilience. This is consistent with previous studies where it has been highlighted that knowledge-based human resource management practices enable and motivates the employees to acquire, share, and disseminate the knowledge (Donate &Pablo, 2015; Lopez-Cabrales et al., 2009). This makes the firm's environment conducive to collaboration and interaction which translates to the learning climate of the organization; such an atmosphere of knowledge sharing develops employees who can analyze critically and take proactive actions to be prepared for unpredicted future events (Lewis, 2013). Studies have demonstrated that practices associated with training, performance assessment, and compensation foster a learning climate in the firm. It was outlined by Chahar et al. (2019) that training and development can lead to increased learning ability, willingness to work as a team, enhanced confidence at the workplace, and an elevated sense of motivation to do the job. Similarly, in another study by Bednall et al. (2014), the findings revealed that effective performance appraisal can enhance knowledge exchange in the firm which would eventually increase participation. In line with this, compensation is also considered a tool such that if employees are fairly rewarded, they go above and beyond for the organization to give back (Hong et al., 2012). Such practices can increase the learning climate of the organization because employees that are being trained can create new knowledge which can be exchanged with colleagues and then applied within the firm. Furthermore, including a criterion of knowledge creation, exchange, and application can direct the behavior of employees to create a climate of learning through the stated actions.

Additionally, when employees are rewarded for the actions, they are more inclined to perform better and continue with the same actions, thereby enhancing the learning climate of the organization. A firm that values a learning climate or deems the establishment of a learning climate important will be able to develop resilience. This was corroborated in a study by Arfiansyah (2021) that culture of a firm can increase resilience. This was further confirmed by Parsons (2010) that values and culture are key elements in developing resilience. So, an organization who values knowledge processes will be putting emphasis on establishing a learning climate, thereby increasing the resilience of the organization in face of complex business landscape. The results of the present research are aligned with the previous studies and confirm the notion that learning climate mediates the relationship between knowledge-based human resource management practices and organizational resilience.

5.2 IMPLICATIONS

5.2.1 Theoretical implications

Thus far, limited research has been conducted on knowledge-based human resource management practices and their association with organizational resilience. Previous research has been conducted from the perspective of strategic human resource management practices and organizational resilience (Bouaziz & Hachicha, 2018; Lengnick-Hall et al., 2011; Rehman et al., 2021; Yu et al., 2022). The present study contributes to the existing literature by deepening our understanding of the importance knowledge-based human resource management practices hold in building a resilient organization. Additionally, the study enriches the literature by examining the impact of each practice upon organizational resilience. Notably, by investigating the individual knowledge-based human resource management practices, this study provides a guideline on which practices should be emphasized to enhance the organizational resilience through learning climate within the hotel industry. Interestingly, the findings suggest that all practices with the exception of knowledge-based recruitment have a significant impact. This is surprising as the said practice is believed to have an influence on positive outcomes. However, this study offers a different perspective on the practices, thus contributing significantly to the extant literature.

By acknowledging the mediating role of learning climate, the paper helps in comprehending the underlying mechanism of how knowledge-based human resource management practices

impact organizational resilience. To date, there has been a lack of research in the existing literature on the stated mediation relationship (Al-Tal & Emeagwali, 2019; Beuren et al., 2022; Gupta, 2021; He et al., 2023; Le & Le, 2023; Odeh et al., 2023; Singh et al., 2021; Wang & Wang, 2023).The present paper contributes to the literature by studying the mediating role of learning climate between knowledge-based human resource management practices and organizational resilience. The findings confirm the significance of the mediator between knowledge-based human resource management practices and organizational resilience, thereby enhancing the existing body of knowledge.

The present study also contributes by investigating the impact of learning climate on organizational resilience. Previous research was conducted to analyze the impact of business network (Xie et al., 2022), transformational leadership and adaptive culture (Odeh et al., 2023), digital intensity and digital transformation management intensity (He et al., 2023), digital corporate social responsibility, social entrepreneurship, and competitive intelligence (Al-Omoush et al., 2023) upon organizational resilience. The present study adds to the extant literature by enhancing our understanding of the impact a learning-oriented environment holds to build resilience in turbulent times. By analyzing the relationship, this study reveals the importance of learning climate in improving organizational resilience. The findings suggest a positive association of learning climate on organizational resilience, thus contributing to the existing literature.

5.2.2 Managerial implications

Organizational resilience is the core challenge in times of uncertainty and unpredictability. Therefore, this research may have several implications for firms whose aim is long-term sustainability of the organization.

First, the findings reveal that knowledge-based training influence learning climate. Hence, top management should ensure that the new skills are instilled within an employee to encourage knowledge creation consistent with the trends in the external environment, it is necessary to provide knowledge-based training as per the requirement of the professionals within the hotel industry. For this purpose, the hotel industry is advised to maintain a skills inventory to keep track of the required knowledge for future opportunities. Additionally, the hotel industry should have sophisticated systems and experts who can constantly monitor the environment for changing trends. Therefore, appropriate training can enhance coping

mechanisms of an organization to external changes and promote innovative behavior of hotel professionals.

Second, the findings reveal that knowledge-based performance assessment influence learning climate. Hence, top management should ensure the presence of knowledge processes (knowledge sharing, knowledge creation, and knowledge application). Therefore, hotel industry is strongly advised to incorporate a pronounced knowledge component in their performance assessment indicating that the growth of employees is dependent upon their level of contribution to knowledge processes. For this purpose, managers within the said industry are advised to keep in constant communication with the professionals within the firm. While formal meetings happen either once or twice a year, it is recommended that informal meetings take place on a regular basis to ascertain that hotel professionals are aware of the deficiencies in their performance. This iterative process will foster a continuous learning climate and enable the hotel professionals to cover the gap between existing and desired skill level. This, in turn, will prepare the organization for turbulent scenarios.

Third, the findings reveal that knowledge-based compensation influence learning climate. Hence, top management should ensure that hotel professionals are motivated and continue to acquire and share knowledge, it is necessary to compensate them for their behavior. For this purpose, it is suggested that attractive incentive systems are in place to motivate the professional employees within the hotel industry. For instance, organizations can opt for a cafeteria style system where against a set budget employees can choose benefits suited to their needs. This will encourage hotel professionals to maintain the attitude of acquiring and sharing knowledge, contributing to the overall capabilities of an organization to become resilient in face of adversity.

Finally, knowledge-based recruitment negatively influences the learning climate of the organization. As such, it implies that recruiters in the hotel industry are not looking to hire employees with an aptitude to continuously learn. However, this not to say that knowledge-based recruitment does not hold any impact at all on the learning climate of the organization. Even though the hotel industry expects the employees to have skills and competencies before joining the said industry, it is still important that candidates have networking, learning and development abilities. Such abilities will prove to be an asset when training and developing the hotel professionals to upgrade his/her skills, which will increase the chances of an organization to be resilient as the employees can build on their existing skills. Thereby

creating an environment where novel solutions are generated, and innovation performance is enhanced.

5.3 LIMITATIONS AND FUTURE DIRECTIONS

This study holds certain limitations which should be addressed by future researchers. First, the current economic crises are prevalent across the world while this study is confined to Pakistan. It has been forecasted by the World Economic Outlook (2023) that the global growth is forecasted to slow down from 3.5 percent in 2022 to 3.0 percent in 2023, and 2.9 percent in 2024 which is below the average of 3.8 percent (previously recorded from 2000-2019). Additionally, advanced economies are projected to slow down from 2.6 percent in 2022 to 1.5 percent in 2023, followed by a further decline to 1.4 percent in 2024 as a consequence of policy tightening (World Economic Outlook, 2023). Finally emerging and developing economies are projected to decelerate from 4.1 percent in 2022 to 4.0 percent in 2023 and 2024 (World Economic Outlook, 2023). The data clearly indicates that economic growth will decline; therefore, organizations must be prepared to combat it. Since this research is limited to Pakistan's economy, future researchers should examine the impact of organizational resilience in other countries. This will increase the generalizability of the findings.

Second, this study is cross-sectional in nature. Essentially, it captures data at only one point in time. For this particular research, a survey questionnaire was distributed which allowed employees to express their opinions. However, the response of the same participant may differ at a different point in time. For instance, before a calamity the response might be favorable while during an adverse circumstance, it may differ from the previous one. This is considered a limitation of the cross-sectional study (Levin, 2006). For this purpose, it is suggested that future researchers conduct a longitudinal study which would allow for the investigation of change and development over a period of time.

Third, the data was collected from the hotel sector within the hospitality industry. Future researchers should investigate other sectors within the hospitality industry such as travel & tourism, entertainment & recreation, and several others. It is suggested that future researchers also evaluate the interconnectedness of different sectors within the hospitality industry and incorporate that into the model to attain a more comprehensive outlook. This will validate if the present model is workable in the other sectors of the hospitality industry.

Fourth, this study has more male respondents as opposed to female respondents, this can be linked to the fact that hotel sector is a highly male-dominating sector. It is important to gain insights from female employees as the hospitality industry caters to the needs of customers from all walks of life. In such a case, it is essential to gain the perspective of female employees as well to develop a more resilient organization. Future researchers should incorporate more females to gain a holistic perspective on the study.

Finally, the current study is limited to investigating the impact of knowledge-based human resource management practices on organizational resilience. It is recommended that future researchers consider other types of HRM practices and how those practices may influence organizational resilience within the hotel sector. For example, future researchers may consider investigating the impact of flexibility-oriented human resource management practices on organizational resilience. In a previous study, it has been argued that flexibility oriented human resource management practices are essential to adapt to the uncertain competitive landscapes (Wright and Snell, 1998; Lakshman et al., 2022). Furthermore, future researchers may use different leadership styles as moderators such as digital leadership capability, transformational leadership, and empowering leadership. Finally, they may also use other mediators such as disaster management.

5.4 CONCLUSION

In summary, this thesis unraveled the nexus of knowledge-based human resource management practices and learning climate which formulated a pathway towards achieving organizational resilience and innovation performance within the hotel industry. The results underscore the importance of knowledge-based human resource management practices as a cornerstone for cultivating learning climate which significantly enhances the organizational resilience and results in the innovation performance of the hotel sector of Pakistan.

The significance of this study extends beyond the immediate scope of this research offering invaluable information to the practitioners in the field of human resource management. The recognition of learning climate playing a key role as mediating variable provide firms with the mechanism needed to achieve organizational resilience. By encouraging employees to be involved in the knowledge processes of the organization through knowledge-based human resource management practices, firms can foster a learning climate. This will enable the firm

to be resilient when faced with challenging circumstances, resulting in innovation performance.

Additionally, the importance of this study also extends to the policy makers of the hotel industry. The findings of the present study emphasize the role knowledge-based human resource management practices play in establishing organizational resilience. It is through the knowledge processes - knowledge creation, knowledge dissemination, and knowledge exchange, that firms can pave the way to build resilience. Policy makers within the hotel industry can achieve that by devising strategies that inculcates the component of relevant knowledge as a primary factor when recruiting candidates, training employees, assessing employees, and compensating employees. This will ensure the cultivation of learning climate, resulting in organizational resilience of the hotel industry.

This study is paramount to comprehend the interconnectedness between knowledge-based human resource management practices, learning climate, organizational resilience, and innovation performance. This research can be leveraged by academicians and practitioners as it is a guideline to understanding the development of organizational resilience. Through embracing the insights offered by this study, the hotel industry of Pakistan can capitalize on it by developing organizational resilience.

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APPENDIX

QUESTIONNAIRE

Section 1: Demographic Information

1.	Gender	□ Male	□ Female	□ Prefer not to say
2.	Age	□ Less than 18	□ 18-24	□ 25-35
		□ 36-50	□ 51-64	□ 65 & above
3.	Qualification	□ Matriculation	□ Intermediate	□ Undergraduate
		□ Masters	□ PhD	□ Professional Certification
4.	Experience	□ Less than 1 year	□ 1-2 years	□ 3-5 years
		□ 6-10 years	□ 11-15 years	□ Above 15 years
5.	Industry/Sector	□ Hotel Industry	□ Other *(Please specify)* _____	

Section B: For each statement below please circle the appropriate responses:

1 = Strongly Disagree (SDA), 2 = Disagree (DA), 3 = Neutral (N), 4 = Agree (A), 5 = Strongly Agree (SA)

Knowledge-based HRM Practices	**SDA (1)**	**DA (2)**	**N (3)**	**A (4)**	**SA (5)**
a. Knowledge-Based Recruitment					
1. When recruiting, my organization pays special attention to hotel relevant expertise.	1	2	3	4	5
2. When recruiting, my organization pays special attention to learning and development ability.	1	2	3	4	5
3. When recruiting, my organization evaluates the candidates' ability to collaborate and work in various networks within hospitality sector.	1	2	3	4	5

b. Knowledge-Based Training					
4. My organization offers opportunities to deepen and expand expertise relevant to hotel industry.	1	2	3	4	5
5. My organization offers training that provides with up-to-date knowledge relevant to hotel industry.	1	2	3	4	5
6. My organization provides the opportunity to develop my competence through tailored training specific to my needs relevant to hotel industry.	1	2	3	4	5
7. My organization discusses competence development needs with me regularly.	1	2	3	4	5
c. Knowledge-Based Performance Assessment					
8. In my hotel, the sharing of knowledge is one of the criteria for work performance assessment.	1	2	3	4	5
9. In my hotel, the creation of new knowledge is one of the criteria for work performance assessment.	1	2	3	4	5
10. In my hotel, the ability to apply knowledge acquired from others is one of the criteria for work performance assessment.	1	2	3	4	5
d. Knowledge-Based Compensation					
11. My hotel rewards employees for sharing knowledge.	1	2	3	4	5
12. My hotel rewards employees for creating new knowledge.	1	2	3	4	5
13. My hotel rewards employees for applying knowledge.	1	2	3	4	5

Learning Climate	**SDA (1)**	**DA (2)**	**N (3)**	**A (4)**	**SA (5)**
1. In my hotel, we have the opportunity to learn new skills and knowledge.	1	2	3	4	5
2. In my hotel, we are encouraged to try different approaches to solve problems.	1	2	3	4	5
3. In my hotel, we are rewarded for using on the job	1	2	3	4	5

what we have learned in training.					
4. In my hotel, supervisors and co-workers help reschedule work so we can attend learning-related activities.	1	2	3	4	5
5. In my hotel, learning-related activities are encouraged to develop the skills needed for advancement.	1	2	3	4	5

1 = Strongly Disagree (SDA), 2 = Disagree (DA), 3 = Neutral (N), 4 = Agree (A), 5 = Strongly Agree (SA)

Organizational Resilience	**SDA (1)**	**DA (2)**	**N (3)**	**A (4)**	**SA (5)**
1. My hotel has the ability to restructure itself in responding to crises.	1	2	3	4	5
2. My hotel manages risk effectively during crises, keeping smooth relationships.	1	2	3	4	5
3. My hotel rapidly takes vital actions when needed.	1	2	3	4	5
4. My hotel is able to deal with unpredicted crises that worsened.	1	2	3	4	5
5. My hotel has emergency plans for unexpected events.	1	2	3	4	5
6. My hotel has strong relationships with partners during unpredicted crisis.	1	2	3	4	5
7. My hotel has appropriate resources to absorb unpredicted changes during crises.	1	2	3	4	5

Innovation Performance	**SDA (1)**	**DA (2)**	**N (3)**	**A (4)**	**SA (5)**
1. My hotel has successfully developed and/or introduced new services.	1	2	3	4	5
2. My hotel has successfully improved existing services.	1	2	3	4	5

3. My hotel has successfully developed and/or introduced new processes.	1	2	3	4	5
4. My hotel has successfully improved existing processes.	1	2	3	4	5
5. My hotel has successfully expanded to new regions.	1	2	3	4	5
6. My hotel has successfully employed new methods of service delivery.	1	2	3	4	5