

Influence of Generative Artificial Intelligence on HR Practices: The Role of Innovation Climate

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Abstract

This research uses the Socio-Technical Systems (STS) theory postulating that organizational success is a product of social and technical sub-systems, and examine the effects of generative AI on the HR practices. Furthermore, the study focuses on the mediating role of innovation climate on the relationship between generative AI and HR practices in the hospitality sector. A sample of 327 participants is selected by a convenient sampling technique from hotel employees. The data is collected through structured questionnaire and analyzed using PLS-SEM. The results of the study bring essential insights into the interactions between technological dynamics and organizational environments in the case of HR functions in the technology oriented world. Findings shows that generative AI has a massive positive impact on the HR practices and innovation climate positively influence HR Practices. This finding supports the notion that Innovation Climate mediate the relation between generative AI and HR practices. The findings imply that generative AI improves HR Practices but that its full potential is unlocked with a robust innovation climate. The study's findings contain practical and managerial implications for professionals, managers, and leaders as well as policymakers who desire to improve HR practice and create an innovative environment using generative AI. To attain benefits, HR leaders need to spend as much as they can on the AI driven tools which is capable of doing these processes but handles HR teams to work together to benefit from AI.

Keywords: Artificial Intelligence, Generative AI, HR Practices, Innovation Climate, Socio-Technical Systems (STS) Theory.

Introduction

AI has evolved quickly and drastically over the years and has affected industries greatly in redesigning its approach to operations and decision making. One of the most revolutionary inventions within the last couple of years is generative artificial intelligence or GAI – a tool that can create scripts or images, text, music, videos, etc., based on the initial data provided. In this case, GAI has been used in the different fields hence boosting productivity, creativity and efficiency (Petrovska et al., 2024; You et al., 2021). Specifically, in the hospitality industry that is characterized by its focus on services and interaction with people, the benefits of GAI for changes in approaches to the management of people (Human Resource Management, HRM) have been developing academic and practical interest (García-Madurga & Grilló-Méndez, 2023). As human

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capital remains to be the key sector's value driver, effective HRM practices remain determinant in sustaining the competitive advantage in the sector while facing challenges such as high turnover, shortages of skills and talent, and pressures for innovativeness (Baum et al., 2022). Because these challenges are real and alarming, the integration of GAI and HRM in the hospitality environment offers a great chance to solve them, and that is why it is an important and topical area of research. Despite AI technologies deploying in numerous applications in the HR field such as recruitment, performance management, and training, GAI's application has not been researched much. Research shows that AI helps to revolutionize the HR processes through automating tasks, optimizing decisions, and creating better and more flexible experiences for employees (Astuti et al., 2024; Naumov, 2019). However, the current literature mainly investigates traditional AI with few scholarly investigations on how GAI affects HRM (Dwivedi et al., 2021; Chowdhury et al., 2023). This is a crucial deficit, especially as GAI can serve as a source of novel, more flexible and creative approaches to HR: from integrated AI-driven communication with employees to a more individualized approach to training or talent acquisition processes (Hmoud, 2021). Therefore, this research aims to fill this research gap by exploring how GAI impacts on the human resource practices in the hospitality industry and the role of GAI in improving processes for higher levels of engagement satisfaction and retention of the employees in the industry.

Besides the direct relationship between GAI and HRM, the influence of the innovation climate in organizations is gradually emerging as one of the key mediating factors that can influence the successful implementation of any innovation, including new technologies. The innovation climate conceptualized as an organization support for creativity, risk-taking, and new ideas within and across groups, and has been shown to influence the effectiveness of GAI applications in HRM as pointed out by Alsheiabni et al. (2019). Research indicates that when there is good innovation climate the uptake and implementation of such advanced technologies is carried out easily (Waheed et al., 2019; Rubel et al., 2023). Apart from easing the adoption of the AI technology into an organization, it prepares an organizational environment that encourages the adoption and implementation of other innovation practices (Jing et al., 2023). This suggests that an innovation climate can mediate by establishing the right context for generative AI to be used optimally in HR functions and where new technologies are routinely absorbed into processes (Anderson et al., 2020).

Studying these relationships has importance in the fact that generative AI has the capability of significantly changing the manner in which HR is practiced especially in industries that are personnel intensive such as hospitality industry. In particular, the industry relates to hospitality which is different through high level of employees' turnover, multiple and various requirements for skills, and numerous contacts with customers, therefore, it is significant to consider role of the HR practices in the success of organization in this sector (Wirtz et al, 2019). The conventional measures employed by the human resource management in the hospitality industries may lag behind advance technologies which cause inefficiencies that might be opened up by generative AI (Kumar & Zhang, 2024). The application of generative AI in HR might mean simplification of various operations, optimization of talents acquisition, and engagement. But this potential remains untapped because of the lack of a favorable innovation culture prevailing in most countries. Studying the mediating function of innovation climate might provide suggestions about how the effects of generative AI on HR practices could be most effectively managed. This research fills this gap by examining the relationship between innovation climate and generative AI's application for revamping the organization's HR functions.

This research uses the STS theory postulating that organizational success is a product of social and technical sub-systems (Trist, 1981). Technological subsystem being generative AI must therefore adapt to the prevailing social subsystem through known innovation climate in order to reap desirable consequences on HR practices. In this respect, the innovation climate is conceived as a mediator between technology on one hand and technology organization and human resource practices on the other. The STP has been used in other technological interventions, however its use in conjunction with generative AI and HR Practice is limited, making this a further theoretical contribution of this research.

To the best of the author's knowledge, there is scarce research on the quantitative effects of generative AI on the tasks of HRM and how an organization's concept of innovation has an impact on it. Furthermore, the extent to which the innovation climate has contributed to this transformation or acted as an enabler or barrier has also received limited research focus especially in regional perspective by analyzing the hospitality industry of Pakistan (Jing et al., 2023). Prior research has mainly operating AI for various general operations, the use of generative AI in creating content, automating processes and creating decisions that will reinvent the HR processes has not been explored (Altassan, 2024; Dwivedi et al., 2021). Furthermore, little research has been conducted on the mediating role of innovation climate in relation to the changes resulting from the integration of AI in the industry, specifically in the hospitality industry. Therefore, to meet this research need, this study intends to evaluate the effects of generative AI on HR practices and analyze the moderating influence of innovation climate in relation to the hospitality industry of Khyber Pakhtunkhwa, Pakistan. The specific objectives are:

1. To examine the effects of generative AI on the practices of HR in the hotel industry.
2. To test the mediating role of innovation climate in the relationship between generative AI and HR practices.

Theoretical and practical contributions of this study extends socio-technical systems theory by incorporating innovation climate in the AI use in HR practices. It provides understanding of the fact how the combination of technology (generative AI) and context (innovation climate) in organization influence the outcomes related to HR. In practical terms, this study offers suggestions to the HR managers and policymakers in the hospitality industry on how to adopt generative AI for enhanced HR operations and to establish a climate supportive of innovation of such technologies. This research is potentially informative to organizations in developing areas particularly Khyber Pakhtunkhwa where integration of AI in HR practices can assist in countering operational drawbacks and to enhance competitive advantage.

Literature Review and Hypothesis Development

Generative AI and HR Practices

The emergence of Generative AI in organizations has unlocked game changing capabilities, across HR functions, such as recruiting, training, performance management and employee retention. But, as it turns out, generative AI is suitably automated to undertake tasks such as candidate screening, performance evaluation and proposal of tailored development plans, improving efficiency, objectivity and HR overall effectiveness (Altassan, 2024; Dwivedi et al., 2021). In recent years, AI powered HR systems have been increasingly utilized as part of the recruitment process for companies to enhance the ability to recruit talent with the aid of advanced algorithms, managing interviews, and evaluating performance, comments Kumar and Zhang (2024). However, while promising, the level of impact that Generative AI creates on HR practice in the service based industries particularly as relevant to hospitality has not yet been explored (Wirtz et al., 2019).

Human judgment was historically used in HR practice, which is easily biased and inconsistent. Data-based decision making processes through generative AI would potentially minimize such issues (Hemachandran et al., 2024; Marler & Boudreau, 2017). Yet, the amount to which AI fueled developments of HR procedures occur links to extent with that how AI is applied into the corporation. Previous research also notes that since AI technologies can augment HR processes, yet no empirical evidence has been accumulated about how Generative AI specifically affects HR practices in, for example, the hospitality industry (Dwivedi et al., 2021). This highlights a research gap; we need to understand if Generative AI can overcome established HR challenges in the hospitality industry, which includes high turnover and skill mismatch. Given the capabilities of Generative AI to revolutionize HR practices, it is hypothesized that:

H1: Generative AI use has a high positive impact on HR Practices in the hospitality sector.

Generative AI and Innovation Climate

In order for AI technologies to contribute the benefits that were expected of them, organizations require a conducive innovation climate, that is the environment where creativity, experimentation and applying of new ideas (Shanker et al., 2017; Setiyawan et al., 2024). However, the organizational climate must be open to technological change and allow innovative thinking in the process innovation of HR functions, which is introduced with Generative AI (Jing et al., 2023). Organizational cultures which have not fully embraced innovation and where industries like hospitality traditionally rely on the part of personal TLC can find the adoption of sophisticated technology such as AI met with resistance. As Anderson et al. (2020) state, the right climate for innovation is also needed to successfully adopt AI driven solutions, because it encourages the flexibility needed to transform technologically. Although there is rapidly growing interest in AI and innovation, little research has focused on the exact relationship between Generative AI and innovation climate in organizations. This relationship is important to explore, because innovation climate might facilitate the acceptance, perception and the use of AI technologies by employees (Petrovska et al., 2024; You et al., 2021). An innovation climate also encourages collaboration, creativity and the ongoing iteration of AI driven systems to meet the needs of an organization, especially in industries such as hospitality where change happens quickly. Thus, it is hypothesized that:

H2: Generative AI usage has a significant positive influence on the Innovation Climate in the hospitality industry.

HR Practices and Innovation Climate

The effectiveness of HR practices depends on this organizational innovation climate. The HR department with a positive innovation climate is enabled to experiment with new technologies and processes that enhance employee experiences and employee engagement and overall performance (Shanker et al., 2017). However, an innovation climate can pave the way for an easy adoption of AI technologies in HR functions facilitating the performance of those functions (Dwivedi et al., 2021). This is in line with socio-technical systems theory (Trist, 1981), according to which successful organizational outcome depends on the interaction of social and technological subsystems. In support, the literature existing suggests that organizations should be able to optimize its HR functions by working with a strong innovation climate that promotes creativity, encourages knowledge sharing and supports employee development (Anderson et al., 2020). Jing and colleagues (2023) report that when the climate of the HR department encourages innovation, HR departments are more likely to embrace AI-powered recruitment and training as well as using

AI to enhance employee engagement. Nevertheless, there is very lack of evidence from empirical studies on the mediating role of innovation climate in reinforcing HR practices in service industries such as hospital where human interaction is needed to provide the service (Alsubaie & Aldoukhi, 2024; Wirtz et al., 2019). Based on these insights, it is hypothesized that:

H3: HR Practice in the hospitality sector is overall found to be significantly positively influenced by the Innovation Climate factor.

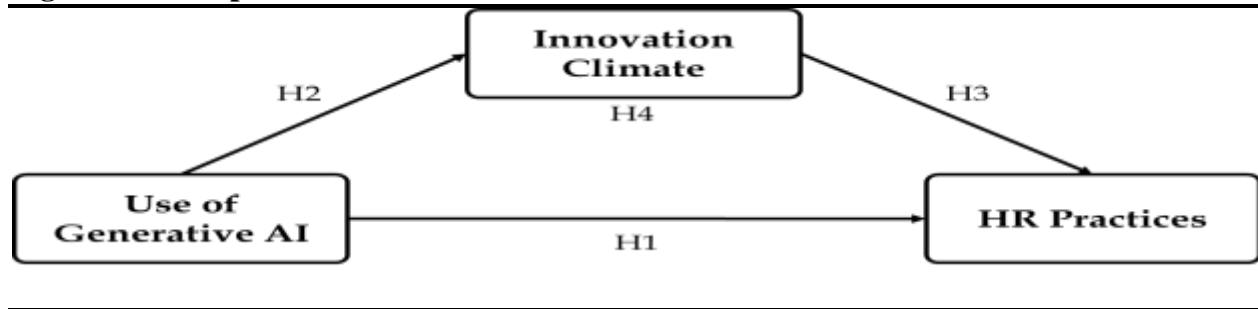
The Mediating Effect of Innovation Climate

Although Generative AI helps build promising new tools that can expand HR practices, the extent to which such benefits are realized is contingent upon the organizational innovation climate. Previous studies have noted that organizations with a strong innovation climates are better positioned to integrate new technologies, as is the case through AI, into HR processes (Dwivedi et al., 2021). Depending on its innovation climate, it does not only become a generative AI adopter, but also a continuous improver of AI HR tools to achieve a closer alignment with the organizational goals (Shanker et al., 2017). This implies that generative AI and HR practices are mediated by organizational innovation climate, organizations with a strong innovation climate are likely to reap more from generative AI for HR improvements. This is supported by the socio technical systems theory, which claims that it is not possible to drive the change within the organization with the help of technology alone. In reality, it is the interplay between such technological and social elements as the innovation climate, that determines whether the adoption of technology will produce better outcomes (Trist, 1981). However, empirical studies that test the mediating role of generative AI innovation climate in the relationship with HR practices are limited by theory. While there are some past attempts to tackle this, we seek to fill this gap with concrete evidence showing how an organization's innovation climate affects the efficacy of generative AI in transforming their HR functions. Thus, it is hypothesized that:

H4: Use of Generative AI in the hospitality sector is mediated by Innovation Climate, and HR practices also mediate the relationship.

Theoretical Foundation

This study is underpinned by a crucial theory of Socio-Technical Systems (STS) Theory, which focus on the co-dependency of technology and social systems within an organization. STS theory posits, however, that while both the technical subsystem (or in this case) the Generative AI and the social subsystem (e.g. the innovation climate and HR practices) work in combination synergistically, they should be aligned to produce effective organizational outcomes (Trist 1981). The technological subsystem Generative AI in this study holds the potential to improve HR practices and its success can be facilitated if a supportive social environment is built by the innovation climate. This theory stated that introduction of new technologies such as AI, cannot operate in isolation and its effectiveness is in the hands of organizational factors, including leadership, culture and innovation climate that facilitate seamless adoption and application of these new technologies in HR processes (Bostrom & Heinen, 1977; Horani et al., 2023). This study applies the STS framework to conceptualize the innovation climate as a critical mediator to fill the gap between Generative AI and optimized HR practices, and argue for an inclusive approach in which the two social and technological systems need to be synchronized for the successful organizational transformation.

Figure 1: Conceptual Framework

Methodology and Procedures

With this quantitative mono method research methodology, this study explores how Generative AI impacts HR practices and how Innovation Climate mediates the impact of Generative AI. The survey strategy is suitable with regard to capturing employees' perceptions on the use of Generative AI and climate of innovation in the hospitality sector. This method involves taking data in a structured fashion that is analyzed using statistical techniques to verify our hypotheses. As a cross sectional research design, data have been collected at one point in time to examine the relationships of the study variables. An additional strength to the study is the use of Partial Least Square Structural Equation Modeling (PLS-SEM) path analysis, which helps provide a complete picture of both direct and indirect relationships between the variables at once.

Population and Sample

This study was conducted in hospitality sector, in Khyber Pakhtunkhwa province, Pakistan's region covering various hotels across the region. As hotel employees are directly affected or involved in HR practices and technological innovations, these include Generative AI, hotel employees are part of the population of the study. Thus we selected a sample of 327 participants by a convenient sampling technique and this technique allows the selection of participants according to accessibility and willingness to participate. Using convenience sampling doesn't generalize to the population well; however, it is very useful for exploratory research in industries where a broader sample may be inaccessible.

Measures

The study employed well-established and validated scales to measure the three key constructs: Generative AI, Innovation Climate and HR Practices. A 5 point Likert type scale was used to measure all items, where 1 indicated 'Strongly disagree' and 5 represented 'Strongly agree.'

Use of Generative AI: A 5 item scale was adapted from previous research on the use of AI in organizations (Venkatesh et al., 2016; Davenport & Ronanki, 2018; Jarrahi, 2018; Stone et al., 2015) to measure the use of Generative AI. The focus was on those items related to AI-Driven Decision Support, AI for Automation, AI-Enhanced Analytics, and AI for Employee Experience.

Innovation Climate: A 16 item scale developed by Scott and Bruce (1994) was used to measure Innovation Climate. It allows us to measure the degree to which an organizational environment encourages creativity, experimentation, and the use of new ideas. It has been widely used in previous studies of the connection between product innovation and organizational outcomes.

HR Practices: Seven items were adapted from Lepak and Snell (2002), Heffernan and Dundon (2016), Jiang et al. (2012), and Huselid (1995) to assess HR Practices. Key HR functions measured at the scale were Recruitment and Selection, Training and Development, Performance

Management, Employee Retention, and Health and Safety. Previous research also has validated these scales, which have shown high levels of reliability and construct validity.

Data Analysis Techniques

The data was then analyzed using the Partial Least Square Structural Equation Modeling (PLS-SEM) path analysis using the software SmartPLS 3. This study is well applicable for PLS-SEM because it handles complex models containing numerous relationships between latent variables especially in exploratory studies (Hair et al., 2019). Simultaneous testing of direct and indirect effects is possible with PLS-SEM, which is particularly important for study of the role of mediating Innovation Climate in the relation between Generative AI and HR practices. The analysis involved the following steps:

Measurement Model Assessment: As we wanted to test for the reliability, convergent validity, and discriminant validity of the constructs, this meant that we tested measurement model first.

Structural Model Assessment: It involved examining hypothesized relationships between the variables including direct effects of Generative AI on HR practices, between Generative AI and Innovation Climate and between Innovation Climate and HR practices in addition what is indirect effect of Generative AI on HR practices via Innovation Climate.

Data Analysis and Results

The Data Analysis and Results section illustrates the study results through a sample characteristic and demographic assessment, followed by an evaluation of the measurement and structural models. We performed Partial Least Square Structural Equation Modeling (PLS-SEM) using SmartPLS 3 software, mainly because this is an appropriate method to analyse complex models and non-normally distributed data (Hair et al., 2019). It enables such a test of both direct and indirect relationships between variables, and the testing of mediation effects. First, we validated the measurement model to assure reliability and validity, then structure model to test hypotheses.

Table 1: Respondents Demographics

Demographic Variables	Group	Occurrence	Percentage
Gender	Male	207	63
	Female	109	33
	Non-response	11	3
Age (Years)	20-29	68	21
	30-39	134	41
	40-49	74	23
	50-59	43	13
	60 and above	3	1
	Non-response	5	2
Education	Intermediate	18	6
	Bachelor	198	61
	Master	107	33
	MS/Mphil & Above	4	1
Overall Experience (Years)	1-10	116	35
	11-20	133	41
	20-30	72	22
	>30	6	2

We conducted mediation analysis of Innovation Climate to understand the role of Innovation Climate in the relationship between Generative AI and HR Practices. In an attempt to ensure the robustness, accuracy, and validity of the results, throughout the analysis statistical techniques were applied to test common method bias, and check model assumptions.

Sample Characteristics and Demographics

A characteristic profile of the sample is given by its demographic (as seen in table 1), that includes a predominantly male representation, 63% male, 33% female respondents, and 3% of the respondents did not disclose their gender. Out of the respondents in terms of age the majority, 41% of the respondents fall in 30-39 years age group, 23% in 40-49 years and 21% in 20-29 years. Thirteen percent of the respondents are between fifty and fifty-nine years and 1 percent are sixty years of age or older, with another 2 percent not indicating their age. Educational qualification wise 61% have a Bachelor's degree, 33% hold a Master's degree, 6% have passed intermediate education and 1% have an MS/MPhil or higher degree. Overall, 41% have 11-20; 35% 1-10; 22% 20-30; and 2% >30 hospitality experience. The range of experience and education of the participants is so broad that it represents a cross section of both the employee base in the hospitality industry of Khyber Pakhtunkhwa as a whole.

Assessment of Assumptions and Common Method Bias (CMB)

To validate results from the dataset, we tested the dataset for Common Method Bias (CMB) using both procedural and statistical methods. To minimize CMB, we designed the survey procedurally so that responses were anonymous and that survey items were randomized to reduce potential bias in responses (Podsakoff et al. 2012). In fact, Harman's single factor test was performed on CMB to calculate its findings statistically; that is, there was no single factor that contributed a significant amounts of the variance (> 50%) of CMB, meaning that CMB was not a problem with data (Podsakoff et al., 2003). We also used Variance Inflation Factor (VIF) testing to detect multicollinearity, and all VIF values were below the critical VIF value of 3.3, so no important CMB issues were found (Kock, 2015). We also verified the key assumptions behind the regression models such as linearity, homoscedasticity, multicollinearity and normality of residuals. The data was non normal as is the case in social science research, however PLS-SEM is robust to non-normality and is appropriate for structural model analysis (Hair et al., 2019). No other major assumptions were violated, making our statistical analysis reliable.

Figure 2: Results of Measurement Model

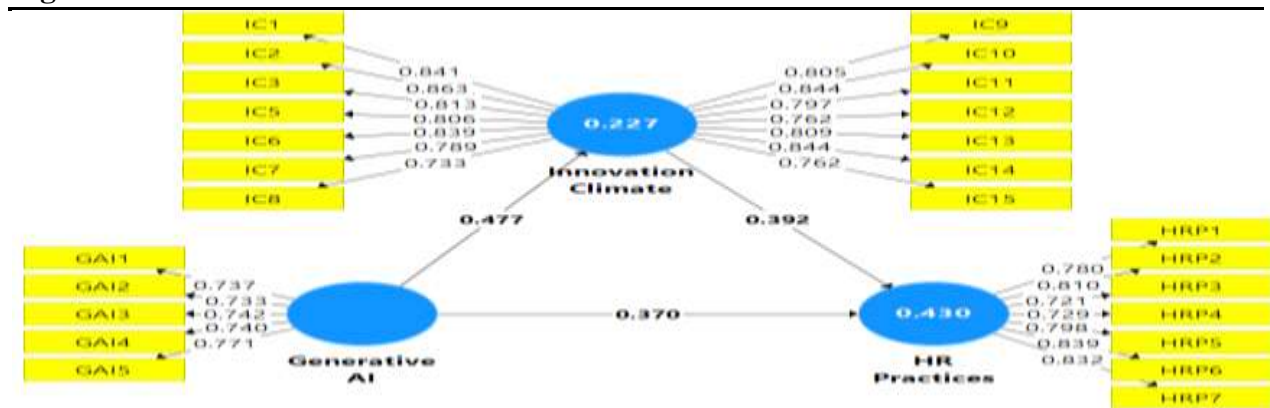


Table 2: Constructs loadings and reliability and validity

Construct	Indicator	Loading	T Statistics	CA	CR	AVE
Generative AI	GAI1	0.737	24.531	0.801	0.862	0.585
	GAI2	0.733	22.492			
	GAI3	0.742	29.705			
	GAI4	0.740	21.448			
	GAI5	0.771	34.129			
HR Practices	HRP1	0.780	29.031	0.852	0.886	0.621
	HRP2	0.810	36.993			
	HRP3	0.721	24.457			
	HRP4	0.729	25.831			
	HRP5	0.798	32.824			
	HRP6	0.839	48.809			
	HRP7	0.832	46.796			
Innovation Climate	IC1	0.841	55.899	0.879	0.903	0.653
	IC2	0.863	61.567			
	IC3	0.813	44.185			
	IC5	0.806	41.841			
	IC6	0.839	50.510			
	IC7	0.789	34.756			
	IC8	0.733	26.877			
	IC9	0.805	42.001			
	IC10	0.844	50.717			
	IC11	0.797	36.609			
	IC12	0.762	30.802			
	IC13	0.809	42.966			
	IC14	0.844	51.738			
	IC15	0.762	32.503			

Measurement Model Evaluation

We validated the measurement model, that is, we ensured that the constructs were valid and reliable, before evaluating the structural model. Convergent validity, discriminant validity and internal consistency of the measurement model were assessed. The measurement model results (Table 2, Figure 2) show strong internal consistency, reliability, and validity for the constructs measured in this study. All constructs of CR values exceed the recommended threshold 0.70, with Generative AI, HR Practices and Innovation Climate possessing 0.862, 0.886, and 0.903, respectively, which indicates high internal consistency (Hair et al., 2019). Similarly, all constructs Cronbach's Alpha (CA) values are far above an acceptable threshold of 0.70, showing reliability and having Generative AI (0.801), HR Practices (0.852), and Innovation Climate (0.879) strongly consistent. All constructs' AVE values are above the 0.50 threshold allowing for adequate convergent validity. Our results from this data meet the criteria that each construct explains a significant part of its variance in the corresponding indicators. The AVE for Generative AI is 0.585, the AVE for HR Practices is 0.621 and AVE for Innovation Climate is 0.653. All items individual indicator loadings also exceed the minimum recommended of 0.70, and the majority of loadings are above this threshold, suggesting that each item is a strong representation of its corresponding construct. For instance, the loadings for Generative AI are from 0.733 to 0.771; for

HR Practices, from 0.721 to 0.839; and for Innovation Climate, from 0.733 to 0.863. Two indicators were deleted for low loadings (< 0.6) for Innovation Climate. Collectively these results provide evidence for the measurement model as robust in the form of reliability with strong evidence of convergent validity and indicator strength, which provides a good basis for structural model assessment and subsequent hypothesis testing.

Figure 3: Results of Structural Model

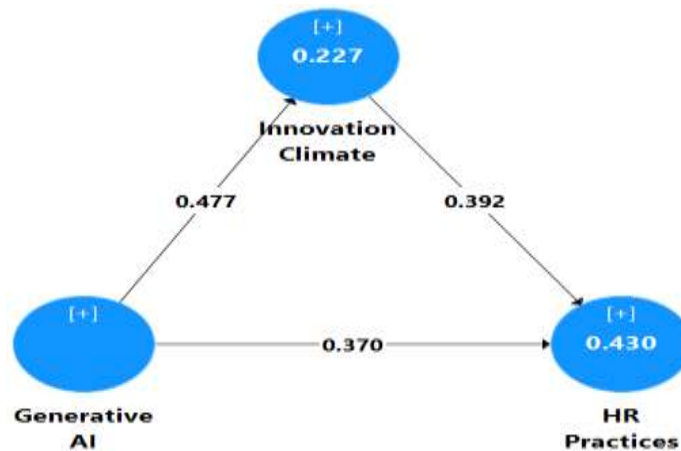


Table 3: Results of structural model and hypotheses testing

H	Path	β	T	CI		R^2	F^2	Q^2	Result
				LL	UL				
H1	GAI→HRP	0.370	8.294	0.281	0.459	0.43	0.186	0.242	Supported
H2	GAI→IC	0.477	12.675	0.402	0.544	0.227	0.294	0.133	Supported
H3	IC→HRP	0.392	7.989	0.298	0.488	0.43	0.208	0.242	Supported
H4	GAI→IC→HRP	0.187	6.387	0.132	0.247	0.43		0.242	Supported

Notes: GAI=Generative Artificial Intelligence, HRP=Human Resource Practices, IC=Innovation Climate

Assessment of the Structural Model and Hypotheses Testing

As shown in figure 3 and table 3 structural model assessment results provide strong support for the hypothesized relationships. With a path coefficient of $\beta = 0.370$ ($T = 8.294$, $p < 0.01$) H1, i.e., GAI had a significant positive effect on HRP, has been supported. This positive relationship was further confirmed by having the confidence interval (CI) range for this path being 0.281 to 0.459. This is reflected in the R^2 value of the model, HR Practices, of 0.43 meaning that 43% of the variance in HR Practices was explained by the model. The size of the effect ($f^2 = 0.186$), its predictive relevance ($Q^2 = 0.242$), and its degree of practical importance (generative AI effect), reinforce the idea of a significant contribution of generative AI in shaping HR practices. In addition, H2 corroborated the direct effect of Generative AI (GAI) on the Innovation Climate (IC), and as found a path coefficient ($\beta = 0.477$, $T = 12.675$, $p < 0.01$, $CI = 0.402, 0.544$). The Generative AI explained 22.7% variance of the Innovation Climate ($R^2 = 0.227$). Generative AI influences the creation of an innovative organizational environment and the effect size ($f^2 = 0.294$) and the value of predictive relevance ($Q^2 = 0.133$) demonstrate the impact of Generative AI. In light of H3, a

positive effect of Innovation Climate (IC) on HR Practices (HRP) was strongly supported with $\beta = 0.392$ ($T = 7.989$, $p \leq 0.01$), and $CI = 0.298$ to 0.488 . While the R^2 value of HR Practices remained constant at 0.43 , with an effect size $f^2 = 0.208$ and predictive relevance $Q^2 = 0.242$, it was more evident to observe how Innovation Climate improves HR outcomes.

Innovation Climate Mediation Analysis

For H4, we conducted mediation analysis to test whether Innovation Climate serves as a mediator of the relationship between Generative AI and HR Practices. Results of the above analysis demonstrated statistically significant path coefficient $\beta = 0.187$ ($T = 6.387$, $p < 0.01$) of the indirect effect of Generative AI on HR Practices through Innovation Climate. The mediating effect was significant as indicated by our confidence interval for the indirect effect which was 0.132 to 0.247 . These findings show that Innovation Climate partially mediates the Generative AI – HR Practices relationship, increasing the total impact of Generative AI on HR outcomes. The fact that we found this underscores the importance of an enabling supporting innovation climate for the greatest potential benefits of Generative AI to be realized in HR practices.

Discussion on Results

This study aims to look into the influence of Generative AI on HR Practices in the hospitality industry and also to assess the mediating role of Innovation Climate influencing this relationship. The results of the study bring essential insights into the interactions between technological dynamics and organizational environments in the case of HR functions in the technology oriented world. This section presents the findings in the context of recent and relevant literatures, contrasting with previous studies and also where findings deviate from existing research. Generative AI has a massive positive impact on the HR Practices as confirmed by the study. This, at least, is consistent with a literature of existing research on the transformative impact of AI technologies on HR functions, including recruitment, selection, training, and performance management (Dwivedi et al., 2021; Kumar & Zhang, 2024). Generative AI has the power to automate activities, eliminate human biases and offer data inspired decision support systems that significantly boost the efficiency and effectiveness of the HR departments (Hemachandran et al., 2024; Marler & Boudreau, 2017). Also, prior research by Stone et al. (2015) has shown that Internet AI methods would be capable of streamlining of HR operations by processing ensued data sets aimed at improving turned talent management and employee retention decisions. While the literature supports the positive effect of AI on HR practice, some studies have identified potential over reliance on AI in HR process will lead to depersonalization in HR process. Wirtz et al. (2019) propose that AI driven processes may reduce the importance of personal engagement when served by a human in service industries such as hospitality (in which human interaction is crucial to service delivery) and consequently result in lower employee satisfaction and retention. While Generative AI can greatly improve HR departments, it must be carefully implanted in HR processes to avert the loss of the essential human component to hospitality.

The second hypothesis held up, with strong support that Generative AI had a great deal of positive effect on Innovation Climate. This finding supports the notion that AI technologies, especially Generative AI, help build an environment that promotes the exploration, creativity, and the data driven decision making (Jing et al., 2023; Anderson et al., 2020). As an important tool for organizations to establish an innovation friendly climate, AI is able to generate new ideas, automate processes and improve problem solving capability (Petrovska, et al., 2024; You et al., 2021). This is similar to what Setiyawan et al., 2024 and Shanker et al. (2017) advocate for by

suggesting that by introducing AI organizations can also stimulate an innovation climate by stimulating employees to engage in new technologies and experiment with the use of new solutions. But it's important to mention that organizational culture and leadership itself actually also matter in providing this creative environment for AI. Anderson et al. (2020) claim that AI could have the potential to improve innovation, but only to the limit where the culture that supports risk taking and experimentation is in place to maximize its potential. This study provides corroboration that Generative AI alone cannot catalyze innovation, as we need a supporting organizational space that predetermines technological uptake and creative problem solving.

A positive significant relationship between Innovation Climate and HR Practices was found. Consistent with prior studies that emphasize the significance of a supportive innovation climate to letting HR departments take up and assimilate new technology and processes for better HR outcome (Altassan, 2024; Dwivedi et al., 2021). HR practitioners have the option of developing more effective employee engagement strategies as referred to by Setiyawan et al., (2024) as an innovation climate encourages experimentation and creativity such that employee job satisfaction and decreased turnover rates are promoted. This is consistent with the argument by Jing et al. (2023), that those organizations with a favorable innovation climate are fitter to adapt to using AI-powered tools in the context of HR and eventually significantly improve recruitment, training, and performance management. On the other hand, some of the studies present a different view, in which can be considered the service industries. In Wirtz et al. (2019), they suggest that innovation climates may help improve HR practices; however, too much focus on technological solutions may outweigh the importance of interpersonal relationships in the HR, in particular for those industries like hospitality, where human interaction is important.

Mediation analysis demonstrated that innovation climate does indeed mediate the relation between Generative AI and HR Practices. This finding is in agreement with the Socio-Technical Systems (STS) Theory, as this theory suggests that AI, technological development, should be embedded as part of an organization's social environment (Trist, 1981). As a mediating variable, the innovation climate constitutes an essential source of the support needed to successfully put into action the AI-based HR practices. These results confirm existing studies showing the importance of an organizational context of maximizing the benefits of technological innovations. Dwivedi et al. (2021) contend organizations with high levels of innovation (climate) are better able to incorporate AI technologies in their HR processes and in turn improve organizational performance. In addition to this, this study contributes to the growing body of literature on the complementary relationship between technology and organizational climate with respect to driving HR performance improvements (Shanker et al., 2017). But, some of this research findings differ from the results of this study. Marler and Fisher (2013) posit that such organizations with rigid structures and low innovation climates may see employee and management resistance to AI technology implementation limiting the effectiveness of AI-based HR practices. This implies that innovation climate acts as a mediator of the relationship between organizational culture and openness to technological change.

Implications of the Study

By applying and extending the Socio-Technical Systems (STS) Theory in relation to Generative AI and HR Practices in the hospitality sector, this work adds greatly to theoretical contributions. According to STS Theory, organizational success is achieved through the interaction between technological systems and social subsystems, and such outcomes can only be accomplished when the subsystems are in line. These findings confirm this principle; we show that Generative AI

improves HR Practices but that its full potential is unlocked with a robust Innovation Climate. Therefore, as confirmed by recent literature, technology organizations must integrate technological innovations in a conducive social environment, which implies here the organizational climate for the technological transformations (Anderson et al., 2020; Dwivedi et al., 2021). Building on the current theoretical understanding of STS, this study contributes to the mediating role of Innovation Climate in the bridging of the gap between Generative AI and HR outcomes. Empirical evidence is provided that tech (including AI) alone is not enough to improve HR processes. This confirms that social and organizational factors are critical to technology adoption and that instead of their success depending solely on their innovation, it depends on an innovation friendly climate. Therefore, extending STS Theory, this research offers a more nuanced understanding of how organizational climates can facilitate or inhibit effective use of advanced technologies in service-oriented industry, such as hospitality.

This study's findings contain practical and managerial implications for professionals, managers, and leaders as well as policymakers who desire to improve HR practice and create an innovative environment using Generative AI. Generative AI has a positive impact on HR Practices and sets the opportunity of transformation on the core HR function activities such as recruiting, training, performance management, and employees' retention. Integrating Generative AI can actually be very beneficial for HR managers in making work more efficient through automation of the most repetitive tasks, removing the biases from the decision making through leveraging data on the employee development, making HR manager more data driven. To attain these benefits, HR leaders need to spend as much as they can on the AI driven tools which is capable of doing these processes but handles HR teams to work together to benefit from AI. Additionally, the study identifies generative AI as an immense opportunity that can be maximized accompanied by a supportive Innovation Climate. The organizational culture which is a major driver of successful AI technology adoption is a work environment that encourages creativity, experimentation, and openness to new ideas. This means practical steps such as encouraging cross teams' collaboration, creating opportunities to develop skills of our employees in AI and related technologies, and clearly defining our innovation goals as directly tied to our business plans. This leaves organizations to create a conducive environment for technological innovations such as generative AI which can in turn lead to more dynamic and adaptive HR Practices. From leadership points of view, the results recommend leaders should seek to champion innovation and technological adoption. By encouraging a top down approach in which leadership actively promotes and supports the use of AI tools HR, we can start to lay out foundation for an innovative organizational culture. Furthermore, leaders should emphasize continuous learning and development so that employees at each level can be able to participate, and take advantage of, new technologies. The study is important for policymakers, who should be developing supportive frameworks to incentivize businesses to adopt advanced technologies such as Generative AI. In addition, policies can create incentives for investments in AI infrastructure and in AI workforce development to bridge the gap between the potential of technology and its practical realization. For example, in areas such as Khyber Pakhtunkhwa where the study has been made, stimulating an innovation tolerant setting may further the region's economic development and its competitive advantage in the hospitality industry.

Limitations and Future Research Directions

There are however several limitations to this study for the reader to take into account. Later, research was conducted within the hospitality sector of Khyber Pakhtunkhwa, Pakistan and the

results are generalizable only within this particular sector and region. For example, there are some additional challenges to the hospitality industry, the high employee turnover and the fact that the services are customer facing in some ways, aren't as present in other industries. The extent to which the findings are applicable to other contexts is therefore also in question. Second, the study conducted a cross sectional design in which data was collected at one point in time. This design also restricts inferences regarding causal relationships between generative AI, innovation climate and HR practices. Longitudinal research in future studies may shed some light into how these variables work together over time. The third is that third it was a study that used self-reported data via survey questionnaires, which is not free of common method bias even after procedural and statistical attempts to offset it. Although Harman's single factor test, while applied and no issues found, self-reported measures can still be subject to social desirability bias or inaccurate reporting. In addition, convenience sampling in use limits the ability to generalize the results. Convenience sample is a good way to begin exploring a topic but may not be representative of the whole population of employees in the hospitality industry or other industries. Furthermore, in addition to those variables, this study did not examine other organizational factors that could be relevant to the adoption and the effect of Generative AI on organizations, such as the employee attitude to generative AI, or the organizational leadership.

Future research needs to look at extending this study to other industries and geographic areas to determine the generalizability of these findings. Considering hospitality sector has a special feature, future research can find out whether the change of generative AI influence on HR Practices appears similarly in manufacturing, healthcare, or education. Comparisons cross industries would give more complete understanding of how AI is used in different organizational conditions. The dynamic relationship between Generative AI, Innovation Climate, and HR Practices is also proposed to be explored with longitudinal studies. Longitudinal research would also help determine whether the choice of AI technologies would instigate successful HR practices that could be sustained over the usage lifespan of the AI technologies or that the effects would diminish as AI is normalized within the organization. For future research, the other possible mediators and moderators in the relationship between Generative AI and HR Practices can also be investigated. AI could be implemented in human resource functions in different ways, and, for example, organizational leadership, or employee digital literacy may be important in determining how exploitation in them would be. Such studies would yield a better understanding of the variables that make successful AI integration possible and others that obstruct or impede it. In addition, future studies should attempt to decrease self-reporting bias by obtaining objective measures of HR performance or multi source data gathering strategies like using employees and managers as data sources. Such findings would be more dependable and outlook on the impact of Generative AI on HR careers would be holist. Finally, due to the rapid development of the AI technologies, future research should look into the long term impact of AI on HR, in terms of the possibility of the arising ethical issues, the risk of job downgrading and emotional health of employees. As AI forces us all to consider how it will change things forever, these areas of inquiry will only become more critical for AI researchers and practitioners alike looking to reap AI's benefits without experiencing its risks.

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