

ENHANCING ORGANIZATIONAL PERFORMANCE THROUGH E-HRM INNOVATIONS: UNRAVELING THE IMPACT OF ORGANIZATIONAL AGILITY AND SUSTAINABLE COMPETITIVE ADVANTAGE

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ABSTRACT: This study examines how Electronic human resource management (E-HRM) can improve how hotels works, leading to better overall performance. It focused on 285 hotels in Punjab, Pakistan, exploring how electronic human resource management procedures relate to firm agility, sustainable competitive advantage, and how these affect firm successes. The study used different methods like looking at correlations, regression analysis, and modeling to find essential results. One finding was that firm agility acts as a middleman between electronic human resource management procedures and how well a company performs. This means electronic human resource management helps companies become more flexible and react quickly to changes in the market, which boosts their performance. Another key point was that electronic human resource management procedures indirectly make companies perform better by enhancing their sustainable competitive advantage. This means using advanced technology in human resource management can give companies a better edge over their competitors, helping them stay successful for a long time. The study identified several aspects of firm agility and sustainable competitive advantage that are crucial. These include how quickly a company can respond to market changes, how flexible it is in adjusting procedures, how well it uses its resources, how effective it is in day-to-day tasks, how it manages relationships with stakeholders, and how it plans for long-term success. This paper adds to what we know about electronic human resource management by showing how it can help companies improve their performance through smart human resource management procedures. It's essential for companies to adapt their human resource procedures strategically to succeed in competitive markets. E-HRM plays a key part in building the abilities that companies need to handle challenges and grow steadily in today's business environment.

Keywords: Electronic human resource management Procedures, Sustainable Competitive Advantage, Organizational Agility and Organizational Performance.

(Received 15.04.2024

Accepted 01.06.2024)

INTRODUCTION

In today's dynamic and unpredictable environment, many firms, including those in the hotel industry of Pakistan, face significant sustainability challenges. The highly competitive landscape demands a strategic approach to creating new value through technological innovation and modern methodologies (Adama, Popoola, Okeke, & Akinoso, 2024). Globalization plays a crucial role, compelling firms to meet high customer expectations in terms of performance, quality, and cost-effectiveness (Malek, Yang, & Dhelim, 2024). Over the past decade, information technology has permeated every aspect of firmal operations. In the hotel industry of Pakistan, IT is pivotal in maintaining a sustainable competitive edge, especially regarding resource management, with a particular focus on human resources (Jaya *et al.*, 2024). Utilizing IT systems for human resource management can significantly enhance processes such as knowledge

management. E-HRM has occurred as a vital strategy to support strategic decision-making, thereby bolstering sustainable competitive advantages (Halder *et al.*, 2024). In recent years, the hotel industry in Pakistan has increasingly embraced the integration of HRM (human resource management and information technology) (Inan & Bititci, 2015; Winter, 2003). This trend, known as electronic human resource management, involves utilizing IT to implement human resource procedures and procedures, thereby enhancing their transformational, operational, and relational value (Iqbal, Ahmad, & Allen, 2019; Meo, Kanwal, Ali, Karim, & Kamboh, 2022; Said & Umachandran, 2020).

Electronic human resource management represents a significant shift in how human resource functions are executed within the hotel industry. By leveraging IT, hotels can streamline and optimize various human resource processes, making them more efficient and effective (Tanveer, Yusliza, & Fawehinmi, 2024). This integration allows for a further strategic method to

HRM, ensuring that human resource procedures are not only aligned with firm goals but also capable of adapting to the evolving needs of the business environment (Shakeel Aslam & Akram, 2024). The transformational aspect of E-HRM involves changing the traditional HR landscape through innovative technologies that support decision-making and strategic planning (Tanveer *et al.*, 2024). Operationally, electronic human resource management improves routine human resource tasks such as hiring, appraisals and compensation, making them faster and more accurate. Relationally, it enhances communication and collaboration within the firm, fostering a more cohesive and engaged workforce (Azam, Thevanes, & Arulrajah, 2024).

Overall, the acceptance of E-HRM in Pakistan's hotel industry signifies a move towards more sophisticated and integrated human resource procedures (Setianingrum, 2024). This approach not only helps in attaining higher efficiency and cost savings but also plays a crucial role in building a competitive edge through improved worker engagement and firm agility (Al-Ameryeena, Isaa, & Othmana, 2024). As hotels continue to navigate a highly competitive and dynamic market, the deliberate use of e-hrm will be key to sustaining their growth and success (Radjab *et al.*, 2024). Technological systems within electronic human resource management can facilitate improvements in cost savings, efficiency, flexible services, and worker engagement. Recognizing the importance of E-HRM is essential for the Pakistani hotel industry to attract and retain skilled professionals (Parveen & Alraddadi, 2024). Firm agility, characterized by the adeptness of human resources in navigating the business environment, is crucial for creating a competitive advantage and enhancing agility within electronic human resource management frameworks (Alborathy, Masmoudi, & Ismael, 2023). Despite the significant role electronic human resource management procedures play in improving firm performance, experiential studies involving electronic HRM to firm performance through the lenses of firm agility as well as SCA are scarce, especially in the setting of the Pakistani hotel industry (Tunsi, 2023). Addressing this research gap is essential for understanding and leveraging the full impending of e-HRM to enhance performance and sustain competitiveness in this sector.

LITERATURE REVIEW

Electronic Human Resource Management Practices and Organizational Performance: electronic human resource management is defined as "the application, planning and implementation, of information technology (IT) to network as well as backing at least two peoples in their shared implementation of human resource activities" (H. J. Ruël & Bondarouk, 2018). Moreover, E-HRM enables the integration of HRM capabilities with

information technology, thereby benefiting supervisors as well as workers (Tatiana Bondarouk, 2014; Tanya Bondarouk, Ruël, & Roeleveld, 2019; H. Ruël & Bondarouk, 2014). Necessary electronic human resource management activities include E-hiring, performance management and compensation and communications (Ismail, 2024). Adopting E-HRM step-up the functions of HR by engaging technological tools to increase efficiency. Executing electronic human resource management enhance firm productivity, efficiency, as well as financial capacity, thus contributing to better overall performance (Shakeel Aslam & Akram, 2024). Numerous research have established that E-HRM has a important positive outcome on firm performance (Nyathi & Kekwaletswe, 2024).

The importance of E-HRM in modern firm is significant. By merging human resource management roles with IT, firms can streamline processes, cut costs, and improve communication and collaboration among workers (Koman, Toman, Jankal, & Boršoš, 2024). For instance, electronic hiring permits firms to attract and hire top talent more efficiently, while E-Training and Development ensure continuous worker development and skill enhancement. Electronic performance management provide fair and transparent management of worker rewards and performance evaluations. Additionally, electronic Communication tools enhance interaction and information sharing within the firm, fostering a more engaged and cohesive workforce (Abuowda, Iwidat, & Alawnah, 2024). As firms continue to face competitive pressures and the need for agility, the planned implementation of E-HRM procedures becomes increasingly essential. By leveraging the benefits of E-HRM, firms can attain SCA, foster innovation, and maintain high levels of performance and worker satisfaction (Halder *et al.*, 2024).

H1: electronic human resource management Practices is positively associated with Organizational Performance

Electronic Human Resource Management Practices and Organizational Agility: In today's business environment, information technology has equipped firms with a comprehensive and detailed view of their resources, particularly human resources (Srivastava, 2023). Agility is vital for the existence and progress of firms, allowing them to navigate the competitive business landscape effectively. Enhancing firm agility can be attained through E-HRM, which enables rapid responses to changes and the development of products, services, and processes tailored to customer preferences (Nyathi & Kekwaletswe, 2024). electronic human resource management emerges as a competitive solution for businesses, aligning seamlessly with the strategic choices of firms. This approach is characterized by its flexibility, cost-effectiveness, and strategic potential in managing all

human resource processes, activities, data, and necessary information (Chhabra, Sabharwal, Kaur, & Obaid, 2024). Through electronic human resource management, firms can streamline their HR operations, making them further efficient and adaptable to the ever-changing business environment.

Research has consistently shown that electronic human resource management significantly enhances firm agility (Iqbal, Ahmad, MC Allen, & Raziq, 2018). By integrating information technology with electronic human resource management allows for quicker adaptation to market changes and customer needs, thus fostering innovation and competitiveness. This integration not only reduces operational costs but also improves the overall strategic management of human resources. Ultimately, the implementation of electronic human resource management is essential for modern firms aiming to remain agile and competitive. By leveraging technology to manage human resource processes more effectively, firms can attain better performance outcomes, enhance worker engagement, and maintain a strategic edge in the market. The ability to respond rapidly to changes and customize offerings based on customer desires positions E-HRM as a pivotal component in the strategic arsenal of contemporary businesses.

H2: Electronic Human Resource Management Procedures is positively associated with Organizational Agility

Electronic Human Resource Management Practices and Sustainable Competitive Advantage: A successful firm integrates information technology tools, modern business methods, and a focus on sustainability to minimize the costs associated with human resource procedures (Harahap, Rohman, Assery, Widarman, & Chatra, 2024). E-HRM significantly effects both the productivity and efficiency of human resource management. Effectiveness improvements stem from reducing resource consumption and enhancing the quality of human resource services, thus increasing firm value. Effectiveness is bolstered by enhancing the capabilities of managers and workers, enabling them to make better, more timely decisions that contribute to sustainable competitive advantage (Vafaei-Zadeh, Madhuri, Hanifah, & Thurasamy, 2024). Furthermore, numerous studies have highlighted the significant positive impact of electronic human resource management procedures on sustainable competitive advantage (Halder *et al.*, 2024). electronic human resource management allows firms to streamline human resource procedures, condense operative costs, and progress policymaking competences. This integration leads to a further responsive workforce, improved well-found to meet the strains of a self-motivated business environment. By using electronic human resource management, firms can attain enhanced performance outcomes and maintain a strategic edge in their respective markets.

Research by (Mathur & Nair, 2024) also indicates that human resource management procedures play a vigorous part in achieving SCA. By implementing effective HRM procedures through E-HRM, firms can ensure that their human resources are aligned with their strategic goals, thereby fostering innovation and maintaining competitiveness (Aminudin *et al.*, 2024). This strategic alignment is essential for long-term success in the rapidly evolving business landscape. In conclusion, e-HRM is a vital utensil for modern firms aiming to enhance their efficiency, effectiveness, and sustainability (Cheng, Yu, Dong, & Zhong, 2024). By leveraging technology to optimize human resource procedures, firms can attain significant cost savings, improve service quality, and enhance decision-making capabilities. This not only leads to a more efficient and effective human resource management system but also contributes to attaining and maintaining a sustainable competitive advantage (Jiang, Jamil, Zaman, & Fatima, 2024).

H3: Electronic Human Resource Management Practices is positively associated with Sustainable Competitive Advantage.

Organization Agility and Organizational Performance: Firm agility states to a organization's ability to stay competitive by fast adapting to new value propositions, which can result in the creation of unique business models (Motwani & Katatria, 2024). Key dimensions of firm agility include speed, responsiveness, flexibility, and competency (Fawzy & Saad, 2023; Motwani & Katatria, 2024). These dimensions collectively enable firms to efficiently navigate and thrive in rapidly changing environments. The concept of ability encompasses a series of capabilities and competencies within an firm's human resources, which are crucial for responding to the demands of a new business environment that favors innovation and agility (Hadiono, 2023; Zighan & Dwaikat, 2023). Firm agility, as a competitive advantage, has a positive relationship with firm performance. This is because agility allows firms to respond promptly to environmental changes and adopt procedures that create new business opportunities (ÇAKMAK, 2023; Motwani & Katatria, 2024). Research indicates that firm agility significantly enhances company success and performance (Cho, Jeong, Kim, & Cho, 2023).

Several research have highlighted the positive impact of firm agility on performance (Cho *et al.*, 2023; Motwani & Katatria, 2024; Panda, 2022). Agility enables firms to quickly adapt to changes, thus maintaining a competitive edge. This adaptability is crucial for developing and sustaining new business models and opportunities, ensuring long-term success and resilience in the market (Moşteanu, 2024). Furthermore, previous research suggests that the relationship between E-HRM and firm performance can be mediated by firm agility

(Shakeel Aslam & Akram, 2024). By enhancing agility, E-HRM can indirectly boost firm performance, underscoring the interconnectedness of these elements in attaining strategic business objectives. This mediation highlights the importance of fostering agility within firms to maximize the benefits of E-HRM and drive overall performance improvements.

H4: Organizational Agility is positively associated with Organizational Performance.

H5: Organization Agility mediate the relationship between Electronic Human Resource Management Procedures and Organizational Performance.

Sustainable Competitive Advantage and Organizational Performance: Sustainable competitive advantage is critical for the long-term success of firms, enabling them to attain and maintain a distinct edge in the market through various strategic approaches. By securing a competitive advantage, a company can more effectively determine and implement the procedures it will pursue (Adama *et al.*, 2024). Researchers identified dimensions of sustainable competitive advantage, including operational effectiveness, relational effectiveness, and strategic effectiveness (Kazemi, Kazemi, Heshmat, Nazarian-Jashnabadi, & Tomášková, 2024). Electronic human resource management can play a essential role in

addressing new technological horizons, enhancing worker welfare, and ultimately helping firms operate more efficiently (Azam *et al.*, 2024). A sustainable competitive advantage involves a company's ability to organize its resources and competencies in a manner that leads to superior performance. This concept encompasses dynamic capabilities, which are essential for maintaining a competitive position in the market (Baía & Ferreira, 2024). Effective resource and competency management enable companies to anticipate market changes and adapt swiftly, ensuring long-term success and resilience. Numerous studies have demonstrated that SCA has a positive impact on organizational performance (Shehabat, 2020). This advantage allows firms to optimize their operations, strengthen relationships with stakeholders, and implement strategic initiatives that drive growth and profitability. By focusing on these key areas, companies can sustain their competitive edge and attain superior performance outcomes (Kazemi *et al.*, 2024).

H6: Sustainable Competitive Advantage is positively associated with Organizational Performance.

H7: Sustainable Competitive Advantage mediate the relationship between Electronic Human Resource Management Practices and Organizational Performance.

Theoretical Framework

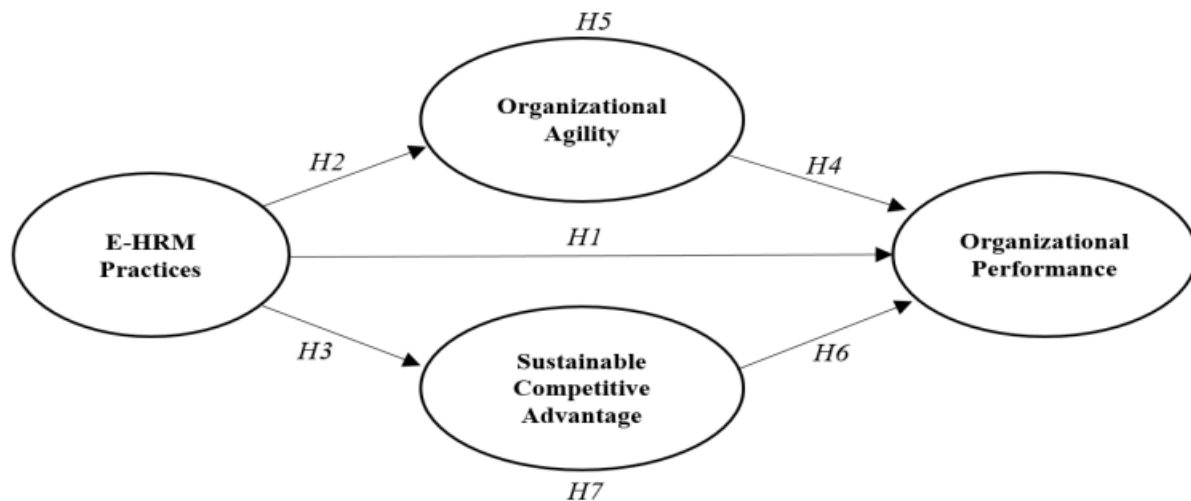


Figure 1: Research Framework

Research Methodology: All the assessment instruments used to measure the variables were altered from previous literature. A five-point Likert scale was used to gauge all the constructs of the study, ranging from strongly agree to disagree. The scale for electronic human resource management procedures encompassed 04 dimensions: green recruitment and selection, green training and development, green empowerment, and green performance management and compensation. The survey instrument, consisting of 15 items, was derived from

(Khashman & Al-Ryalat, 2015) to evaluate electronic human resource management procedures. To measure organizational agility, 12 items were adapted from (Govuzela & Mafini, 2019). Additionally, 09 items from (Karanja, 2017) were utilized to assess sustainable competitive advantage, and 08 items were adapted from (Chen, Gully, & Eden, 2001; Guimarães, Severo, & Vasconcelos, 2017) to measure organizational performance. To assess the content validity of the questionnaire, it was distributed to professors and human

resources managers who specialize in the Pakistani hotel industry. The questionnaire for data collection was finalized after incorporating their feedback and suggestions. The target population in the current study was management staff of 3 to 5-star hotel industry. A deductive approach was utilized in the present study with a survey based on a five-point Likert scale. Data were collected from the hotel industry in the Punjab province, Pakistan.

The researcher enlisted surveyors to conduct data collection using convenience sampling. Given the constraints imposed by the pandemic, surveyors utilized google forms to collect data. Invitation letters were dispatched to the human resource departments of selected universities, who then recommended potential respondents. Upon receiving approval, surveyors approached the participants, explained the study's objectives, and obtained their consent. A total of 285 questionnaires were distributed among staff members from 3, 4, and 5-star hotels in Punjab who expressed willingness to participate. Out of these, 268 questionnaires were returned within the stipulated timeframe. After excluding 36 questionnaires due to missing or incomplete data, 232 fully completed questionnaires were used for subsequent data analysis. The response rate for the study stood at 81.4%.

Results and Analysis: To analyze the data, this study employed descriptive statistics, correlation analysis, and multiple hierarchical regression techniques. Additionally, discriminant validity was assessed using confirmatory factor analysis (CFA) with LISREL 8.80 software. The variance-based approach was utilized to analyze dispersion around the mean value, while the covariance-

based approach helped identify the directional relationships among the variables. For confirmatory factor analysis (CFA), the study employed structural equation modeling (SEM) techniques. The CFA results indicated that the data fit well with the hypothesized four-factor model. The specific fit indices were as follows: $\chi^2 = 578.83$; $df = 784$; $p < 0.000$; CFI = 0.89; GFI = 0.90; and SRMR = 0.036. These analyses demonstrated that the data exhibited a strong fit with the proposed model, supporting the study's hypothesized structure and providing a robust foundation for further analysis.

Descriptive Analysis: The values for correlations, means, and standard deviations (SD) are detailed in Table 2. This table reveals a significant and positive relationship among all the constructs, including independent, mediator, and dependent variables. Specifically, a strong positive correlation exists between electronic human resource management (electronic human resource management) and sustainable competitive advantage (0.734**), as well as between E-HRM and firm performance (0.664**). Furthermore, Table 2 indicates a substantial positive relationship between firm agility and sustainable competitive advantage (0.812**) and between firm agility and firm performance (0.542**). Additionally, there is a noteworthy positive correlation between sustainable competitive advantage and firm performance (0.763**). These results highlight the interconnectedness of electronic human resource management, firm agility, sustainable competitive advantage, and firm performance, suggesting that improvements in one area are likely to positively influence the others.

Table 2 Correlation.

Variables	Mean	SD	1	2	3	4
E-HRM	4.31	0.45	1			
OA	4.34	0.40	.688**	1		
SCA	4.41	0.39	.734**	.812**	1	
OP	4.43	0.42	.664**	.542**	.763**	1

Note: (**p < 0.001, two tailed).

Testing Hypotheses

Table 3 Direct effect of Model.

Hypotheses	Relationship	Beta	P-Values	Result
H1	E-HRM-OP	0.664	0.000	Supported
H2	E-HRM-OA	0.688	0.001	Supported
H3	E-HRM-SCA	0.734	0.000	Supported
H4	OA-OP	0.542	0.000	Supported
H6	SCA-OP	0.763	0.001	Supported

The table above presents the results for direct hypotheses 1 to 4, as well as hypothesis 6. The findings indicate that electronic human resource management (electronic human resource management) has a positive and significant effect on innovation performance, with a coefficient of $\beta = 0.664$ ($P = 0.000$). Furthermore, electronic human resource management positively and significantly influences firm agility, with a coefficient of $\beta = 0.688$ ($P = 0.001$). In addition, electronic human resource management shows a positive and significant impact on sustainable competitive advantage, as evidenced by a coefficient of $\beta = 0.734$ ($P = 0.000$). The

results also demonstrate that firm agility positively and significantly affects firm performance, with a coefficient of $\beta = 0.542$ ($P = 0.000$). Similarly, sustainable competitive advantage has a positive and significant impact on firm performance, with a coefficient of $\beta = 0.763$ ($P = 0.001$). Therefore, all five direct hypotheses are confirmed to be positive and significant, underscoring the substantial influence of electronic human resource management on innovation performance, firm agility, and sustainable competitive advantage, as well as the critical roles of firm agility and sustainable competitive advantage in enhancing firm performance.

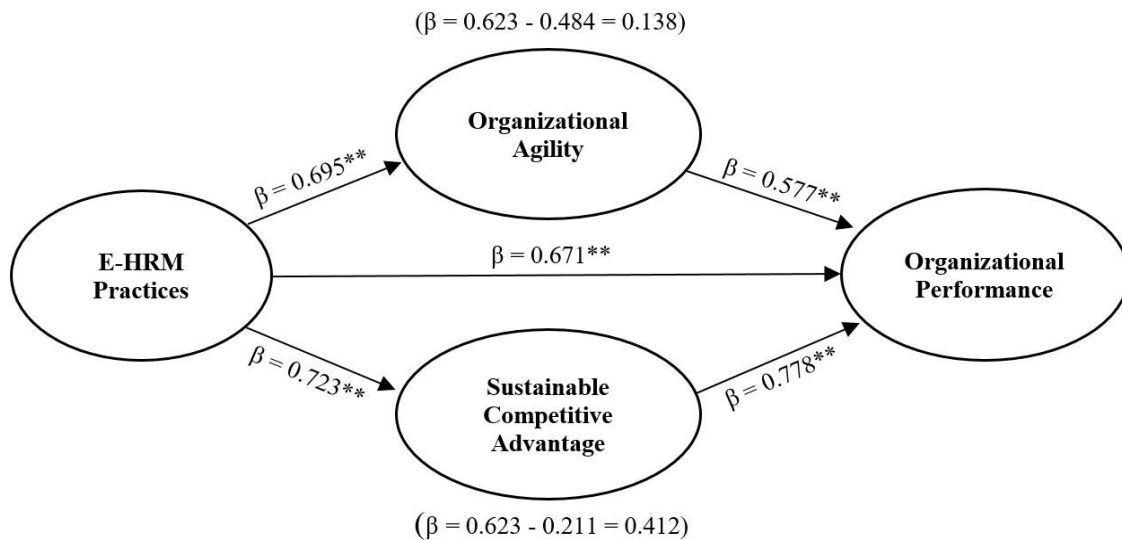


Figure 2 Regression analysis.

The mediation analysis results displayed in the table demonstrate that electronic human resource management (electronic human resource management) indirectly impacts firm performance through the mediating roles of firm agility and sustainable competitive advantage. The analysis shows a significant mediation effect of electronic human resource management on firm performance through firm agility, with a coefficient of $\beta = 0.126$ ($P = 0.001$). Similarly, there is a significant mediation effect for electronic human resource management on firm performance via sustainable competitive advantage, with a coefficient of $\beta = 0.427$ ($P = 0.001$). These findings emphasize the crucial role that firm agility and sustainable competitive advantage play in connecting electronic human resource management procedures to improved firm performance.

By enhancing firm agility, electronic human resource management contributes to greater adaptability and responsiveness, which subsequently leads to better performance outcomes. At the same time, by strengthening sustainable competitive advantage, electronic human resource management supports a firm's long-term success and market positioning, further driving superior performance. Overall, these results highlight the significance of electronic human resource management not only in directly affecting key firm outcomes but also in utilizing intermediary factors such as agility and competitive advantage to attain enhanced performance. This multifaceted influence of electronic human resource management underscores its strategic value in fostering an agile, competitive, and high-performing firm.

Table 4 Indirect effect of Model.]

Hypotheses	Relationships	Beta	P-Values	Result
H5	E-HRM-> OA ->OP	0.126	0.001	Supported
H7	E-HRM-> SCA ->OP	0.427	0.001	Supported

Discussion, Implications and Contribution: The study confirms Hypothesis 1 (H1), demonstrating a positive correlation between electronic human resource management procedures and firm performance. These results indicate that the performance of hotels relies significantly on the integration and technological enhancement of human resource management. Empirical research supports this positive relationship, with previous studies also finding a beneficial link between electronic human resource management procedures and firm performance (Elsawy, 2021). Similarly, Hypothesis 2 (H2) illustrates a direct connection between electronic human resource management procedures and firm agility. The findings validate the positive association between electronic human resource management procedures and firm agility. Specifically, the results indicate that various electronic human resource management procedures, such as electronic-hiring, communication and performance management play a significant role in fostering firm agility. These findings confirm H2 and align with previous research that highlights the positive impact of electronic human resource management on firm agility (Alrawashdeh, Zaki, Yusof, & Mat, 2022; Rashid, 2023).

These results underscore the importance of electronic human resource management procedures in enhancing both firm performance and agility. The integration of technology into human resource management processes not only boosts performance outcomes but also promotes the development of a more agile firm. By leveraging electronic human resource management, firms can attain better performance and greater adaptability, reinforcing the strategic value of these procedures in the modern business environment.

Hypothesis 3 (H3) of the study indicates that electronic human resource management procedures are positively linked to sustainable competitive advantage. The results validate that electronic human resource management procedures significantly contribute to sustainable competitive advantage by providing technologies that enhance the human resource management processes within the company. These findings support H3 and align with previous research ((Najm, 2024; Shamout, Elayan, Rawashdeh, Kurdi, & Alshurideh, 2022). Additionally, Hypothesis 4 (H4) reveals a positive relationship between firm agility and firm performance. The results confirm that the connection between firm agility and firm performance is statistically significant, thereby supporting H4. Previous studies have also suggested this positive association between firm agility and performance (Habibzade, Mohajeran, Ghaleei, & Hasani, 2021; Panda, 2022). Moreover, Hypothesis 5 (H5) confirms the mediating role of firm agility in the relationship between electronic human resource management procedures and firm performance. This highlights that firm agility significantly enhances the impact of electronic human resource management

procedures on performance outcomes. Furthermore, Hypothesis 6 (H6) establishes a positive relationship between sustainable competitive advantage and firm performance, demonstrating that a sustainable competitive advantage significantly boosts firm performance (Azeem, Ahmed, Haider, & Sajjad, 2021; Tu & Wu, 2021). Lastly, Hypothesis 7 (H7) confirms the mediation effect of sustainable competitive advantage in the relationship between electronic human resource management procedures and firm performance. The findings indicate that electronic human resource management procedures contribute to improved firm performance through the enhancement of sustainable competitive advantage (Bag, Dhamija, Pretorius, Chowdhury, & Giannakis, 2022; Rahman & Hosain, 2021).

These results underscore the crucial role of electronic human resource management procedures in fostering sustainable competitive advantage and firm agility, both of which significantly contribute to enhanced firm performance. By leveraging electronic human resource management technologies, firms can attain superior performance outcomes through improved agility and a robust competitive advantage.

Practical Implications: This research offers significant implications for management in practical terms. Firstly, our findings underscore that electronic human resource management procedures play a crucial role in enhancing firm performance through the facilitation of firm agility and sustainable competitive advantage. This involves a strategic focus on integrating human resource management technologies to effectively attract and retain skilled professionals (Bilan, Mishchuk, Roshchuk, & Joshi, 2020; Wassell & Bouchard, 2020). Thus, firms must prioritize their capability to integrate human resource management technologies effectively. While developing electronic human resource management procedures is essential, attaining optimal firm performance also hinges on cultivating firm agility and sustainable competitive advantage (Chowdhury, 2024; Ruiz, Benitez, Castillo, & Braojos, 2024). Secondly, this study posits that electronic human resource management procedures serve as prerequisites and robust predictors of firm agility and sustainable competitive advantage. Therefore, to enhance levels of firm agility and sustainable competitive advantage, firms should concentrate on enhancing their electronic human resource management procedures. This strategic focus will empower firms to strengthen their capabilities and attain superior firm performance outcomes (Irnawati & Prasetyo, 2020; Soomro, Mangi, & Shah, 2021). By aligning electronic human resource management procedures with firm goals and procedures, firms can foster agility and competitiveness, thereby positioning themselves for sustained success in dynamic business

environments. These insights are invaluable for guiding firm procedures aimed at leveraging electronic human resource management procedures to drive performance and competitiveness.

Contribution of the Study: This research makes significant theoretical contributions, particularly in developing a model of firm performance tailored to hotels. It elucidates how the integration of various factors such as electronic human resource management procedures, firm agility, and sustainable competitive advantage can collectively influence the performance outcomes of hotels. These findings align closely with prior studies that have empirically validated the correlation between electronic human resource management procedures, leveraging human resource management technology for managing both managers and workers, and enhancing firm performance (Al-Sabi, Al-Ababneh, Masadeh, & Elshaer, 2023; Mohammed & AL-Abrow, 2023). A second noteworthy contribution of this research lies in its examination of how electronic human resource management procedures contribute to enhancing firm agility and sustainable competitive advantage. Firm agility and sustainable competitive advantage are crucial capabilities for firms, enabling them to operate with greater flexibility, cost-effectiveness, and strategic acumen across all facets of their operations, activities, and data management. These capabilities also empower managers and workers to make more informed and timely decisions, thereby attaining sustainable competitive advantages (Martínez-Peláez *et al.*, 2023; Qatawneh, 2023). This study addresses these gaps by focusing on electronic human resource management procedures as a foundational element that facilitates firm agility, sustainable competitive advantage, and ultimately, improved firm performance. By exploring these dynamics, the research contributes to a deeper understanding of how hotels can leverage electronic human resource management procedures strategically to foster agility, competitive advantage, and overall operational effectiveness in dynamic business environments.

Thirdly, while existing literature underscores the pivotal role of firm support for human resource management technology in enhancing firm performance (Barbieri *et al.*, 2024; Gupta & Jangra, 2024), limited attention has been given to how electronic human resource management procedures specifically establish a robust foundation for firm performance through fostering firm agility and sustainable competitive advantage. This study addresses this gap by empirically investigating and substantiating the mediating role of firm agility and sustainable competitive advantage in the relationship between electronic human resource management procedures and firm performance. The findings of this research unequivocally support the notion that firm

agility and sustainable competitive advantage act as mediators, linking electronic human resource management procedures to enhanced firm performance. The primary objective of this study extends beyond merely elucidating the impact of electronic human resource management procedures on firm performance. It aims to contribute significantly to the enhancement of firm agility, sustainable competitive advantage, and overall firm performance. By exploring these interconnected dynamics, the study provides insights into how electronic human resource management procedures can strategically facilitate firm agility and sustainable competitive advantage, thereby fostering firm resilience and effectiveness in dynamic business environments. These findings are instrumental in guiding hotels and firms in leveraging electronic human resource management procedures to attain sustainable growth and competitive edge in their respective industries.

Limitation and Future Directions: This study acknowledges several limitations that merit consideration for future research endeavors. Firstly, the current investigation centered on exploring the interplay between electronic human resource management procedures and firm performance, specifically examining the mediating roles of firm agility and sustainable competitive advantage. Future studies should delve deeper into these relationships to uncover more nuanced insights and validate the robustness of these constructs. Secondly, it is essential to note that this study exclusively focused on hotels, limiting the generalizability of its findings to other sectors. Given the contextual variations across different industries and countries, caution should be exercised in applying the findings of this study to hotels in diverse settings. Future research should aim to replicate and extend these findings across various sectors and geographical contexts to enhance the external validity of the results.

Moreover, while this study focused on a specific set of variables, it is essential to recognize that there may be other external factors influencing the relationships under investigation. For instance, firm leadership and structure are critical determinants of firm performance that warrant further exploration in future studies. By broadening the scope to include these and other relevant variables, researchers can provide a more comprehensive understanding of the dynamics affecting firm outcomes. Lastly, future research endeavors could benefit from exploring the reciprocal relationships between electronic human resource management procedures and other exogenous variables. Investigating how these variables interact and influence each other could yield valuable insights into their combined impact on firm performance. Such explorations would contribute to a deeper understanding of the multifaceted nature of firm dynamics and inform strategic decision-making within

firms. Addressing these limitations in future research efforts will not only strengthen the validity and applicability of findings but also contribute to advancing theoretical frameworks in the domain of electronic human resource management procedures, firm agility, sustainable competitive advantage, and firm performance.

Conclusion: This study investigated the factors influencing firm performance among hotels in Pakistan, focusing on the adoption of electronic human resource management procedures. Additionally, it examined the mediating effects of firm agility and sustainable competitive advantage. Seven hypotheses were formulated and rigorously tested throughout the study. The results indicate a strong and meaningful relationship between electronic human resource management procedures and firm performance within hotels. Furthermore, the study confirmed the pivotal mediating roles played by firm agility and sustainable competitive advantage. These findings underscore the importance of electronic human resource management procedures in enhancing firm effectiveness and competitiveness. By leveraging advanced human resource management technologies, hotels can optimize their operations and strategic capabilities, thereby fostering sustainable growth and performance. Ultimately, this research contributes to the understanding of how electronic human resource management procedures can positively impact firm outcomes, both directly and through intermediary factors like agility and competitive advantage. These insights provide valuable guidance for hotels in Pakistan seeking to enhance their operational efficiency and attain sustained success in a competitive business environment.

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