Unlocking Innovation through Digital HRM: How Employee Development and Transformational Leadership Shape Adoption Success

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ABSTRACT

Digital transformation as a shaping influence on the reshaping of HRM, above all, service-based industries like the healthcare industry, has been the focus of many articles. Digital HRM as an influence on Jordanian private hospitals' innovation acquisition, the role of employee skill development as a mediator, as well as leadership support as a situational condition, has been the center of attention here. Based on the TOE framework, as well as the RBV, the research tests the postulated relationships utilizing a structure modeling method, relying on data collected from professional persons working in hospitals. Findings indicate that, both directly as well as through the avenue of facilitating a positive effect on employee skill development, digital HRM is the prime facilitator of creativity. Healthcare organizations exhibit more capability to adopt as well as execute innovative ideas where digital HRM practice augurs opportunities for ordered mastering as well as successive professional practice. Mediating role of skill development highlights the strategic imperative of investing as a conduit between technology as well as innovation. Interesting to note is the consideration that the effect of digital HRM on creativity is insignificant altered through the influence of leadership support, indicating that, in professionalized hospital settings, other organizational forces may be more consequential. Based on the processes through which HR digitization yields innovation outcomes, the research product, hereby, contributes to the increasing body of research on digital HRM as well as on healthcare innovation. It furnishes firms as well as hospitals' menageries with valuable recommendations regarding creating innovative workforces where resources are the constraining factor.

Keywords: Digital Human Resource Management, Innovation Adoption, Employee Skill Development, Leadership Support, Healthcare Sector in Jordan
JEL Classifications: M12, M15, O33, M54

1. INTRODUCTION

Digital transformation has recently changed the way firms deal with strategy, talents, and innovating nowhere more than in the medical sector (Santarsiero et al., 2023; Singh et al., 2021). Human resource management (HRM) has recently welcomed digital technologies to revamp its processes and align labor abilities with institutional objectives among fluctuating expectations of patients, regulations, and increasing aspirations for expediting functioning (Chakraborty and Biswas, 2020). Often called digital HRM, this shift is more than an improvement in functioning; it's a strategic shift with potential impacts on hospital innovating, adaptation,

and endurance in developing countries like Jordan (Malik et al., 2021). On a global scale, the discussion about digital HRM has spread beyond the convenience of the administration and the automating to strategic uses such as data-based talents analytics, Web-based time-related performance tracking, as well as AI-aided hiring (Vrontis et al., 2022). In the sector of health care, where the knowledge of the workforce as well as the quality of services go hand-in-hand, these technologies open opportunities to strengthen organizational adhéroncy as well as accelerate innovation. While digital HRM is increasingly significant in the West as well as corporate sectors, little empirical research has examined the impact it has on the diffusion of innovation within Middle Eastern health

care systems particularly those operating under budgetary as well as infrastructure constraints. (Al Mahamid et al., 2023).

Private hospitals, which are routinely complimented on their competitiveness as well as compliance with international standards, are a significant component of Jordan's national health infrastructure. Nevertheless, these entities face rising challenges: altering accreditation standards, rising patients, as well as constant capability gaps among clinical as well as non-clinical workers. Numerous hospitals have thus begun exploring digital HRM platforms not only to automate HR processes but also to establish environments appropriate for innovation (Khdour et al., 2022). Nonetheless, the degree to which these platforms actually drive innovation, by the use of brand-new service designs, technologies, or strategies, is debatable. To fill this gap, it is necessary to go beyond dichotomous measures of technological diffusion that take into account internal processes that shape the grounds of innovation to be obtained. The TOE configuration offers a stimulating lens with the help of which a person could see the interaction of technology preparedness, organizational potential, along with external pressure (Baker et al., 2020). Based on this model, digital HRM is an enabler on a technical level, as an organizational element like employee capabilities and management commitment may increase or diffuse the results of innovation.

Being a complement to TOE, RBV also provides a justification of the emphasis on the skills of employees as a mediator. RBV provides that a maintained competitive advantage is a result of a homogeneous, valuable, inimitable, and non-substitutable internal resource (Barney and Mackey, 2021). With technology in healthcare, especially requiring a strict adaptation to the practice and protocol, the success of innovation is more reliant on the ability of the workforce to utilize the technologies rather than their appearance. Skill development of employees therefore emerges as a potentially meaningful element in relating a digital HRM investment to a radical change. In addition, leader support has been regarded as one of the pillars of organizational creativity, particularly in surmounting barriers and organization cross-functional projects (Sikdar and Payyazhi, 2021). Recent research, however, doubts the consistency of the positive impact that leadership has had on the digital transformation and suggests that in the context of highly professionalized organizations, such as hospitals, the role of leadership is rather symbolic or indirect (Sabuhoro et al., 2023). This paper examines this controversy by placing leadership support as a possible moderator to the digital HRM innovation relationship. Considering these gaps and theoretical orientation, the current research aims to answer the following research question: To what extent is digital HRM related to the innovation adoption in the Jordanian private hospitals, and what is the contribution of employee skill development and leader support to this relationship?

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Digital HRM and Innovation Adoption
The digital technologies role in transforming the human resource management has grown by a significant margin in recent years (Alzghoul et al., 2023; Pea-Assounga and Sibassaha, 2024; Fenwick et al., 2024). Digital HRM, which is defined as the use of advanced technologies, including artificial intelligence, machine learning, analytics, and cloud solutions to classic HR practices, is currently a strategic ability that might stimulate innovation in business (Vrontis et al., 2022). Digital HRM can provide unprecedented opportunities to fit human capital practices to the demands of innovation in complex healthcare systems in need of swift responses (Ghosh et al., 2023). In the TOE framework, the hybrid approach puts emphasis on technology as a major contextual engine of innovation adoption since it makes organizational processes easier (Baker et al., 2020). In this perspective, digital HRM systems do not only provide the tools of technology, but also perform the functions of innovation accelerators that allow the openness, fast decision-making process, and simplified integration of new ideas (Manuti and de Palma, 2023; Maheswari et al., 2024). Likewise, the RBV sees digital HRM as an intangible resource supporting strategic renewal by improving organizational learning, knowledge exchange, and adaptation (Barney and Mackey, 2021).

Recent empirical research across many sectors, including healthcare, has revealed strong correlations between digital HRM implementation and innovative results. Particularly in patient-facing technology, Jatobá et al. (2022) found, for instance, that hospitals implementing AI-supported HR analytics were more successful in implementing innovative projects. Al Mahamid et al. (2023) showed in the Middle East that, especially when integrated into agile HR structures, digital HRM systems considerably raised hospital innovation capacity. Malik et al. (2021) similarly demonstrated that companies who supported strategic personnel planning with digital HRM technologies were more suited to accept technological improvements. Research in knowledge-intensive industries supports even more the strategic linkage of HR digitization with innovation. Especially in companies with great absorptive ability, Naqshbandi and Jasimuddin (2018) discovered that e-HRM systems were favorably linked with product and process innovation. Likewise, Mulyani et al. (2021) underlined how faster adoption of digital healthcare services in Indonesian hospitals was made possible by the digitizing of talent management and recruitment processes. These results agree on the fact that digital HRM improves the structural and cognitive requirements for innovation to flourish.

Digital HRM might be used as a compensatory mechanism in emerging economies in which infrastructure and policy environments might be less stable, and bureaucratic delays and data-driven decision-making processes can be used to ensure that hospitals bypass traditional bottlenecks that inhibit innovation. Khdour et al. (2022) discovered that digital HRM systems in Jordanian hospitals were important to facilitate workflow innovation in the COVID-19 pandemic, such as remote staffing and remote learning of clinicians. Based on this evidence, the present research assumes that digital HRM has a positive and direct impact on the levels of hospital adoption and implementation of innovation.

- H_1: Digital HRM has a positive and significant effect on innovation adoption in Jordanian private hospitals.

2.2. Digital HRM and Employee Skill Development

SLDs are becoming more of enablers of capacity building as digital transformation infiltrates business operation departments (Yang, 2024). The digital HRM can provide well-organized routes of employee upskilling and lifelong learning via e-learning systems, artificial intelligence-based performance assessment, and competency design tools (Vrontis et al., 2022). The emergence of adaptive skills in the healthcare industry is not only a performance issue but a strategic concern as well because employee competence in the industry directly correlates with the quality of the provided services. Based on the RBV, competencies development is an essential intangible resource that is valuable, imitable, and long-term strategic objectives (Barney and Mackey, 2021). Digital HRM technologies are capable of improving these functions, making self-paced learning available, analyzing the skills gaps through automation and combining it with the development plans that are particular to an individual. Simultaneously, the TOE model enables the model to propose that internal implementation of technological solutions like digital HRM can restructure organizational procedures in order to enhance staff preparedness and learning facilities (Baker et al., 2020). This theoretical rationale is justified by empirical studies. In a multi-industry study, Bresciani et al. (2021) discovered that digital HRM systems enhanced the agility of the staff significantly due to the promotion of learning opportunities and technology adaptability. Similarly, a 2022 study by Kapoor et al. established that digital HRM tools enhanced the ability of hospitals to prepare the staff members in the new therapeutic technologies through mobile-based microlearning programs, particularly when in-person training was not feasible due to the epidemic.

Highlighting forward-thinking reskilling, Ghosh et al. (2023) underscored the way AI-based performance dashboards allow workers to identify their own development requirements. In high-stakes, frequent procedure-updating healthcare settings, as this, such technologies assist in alleviating tension between demand and supply of delivering training. These findings parallel those by Mulyani et al. (2021), who observed that the engagement with, as also the recall of, training significantly enhanced among hospitals that used e-HRM systems compared to more traditional techniques. Recent studies conducted in Jordanian contexts affirm that hospital managers have been empowered to roll out competency-based professional programs that enjoy increased uptake and standardization, thanks to digital HRM systems (Khdour et al., 2022). In the clinic, where loss of knowledge could prove catastrophic, these technologies allow, in real-time, tracking the progress of training as also instantaneously tracking the evidences, both essentials. Furthermore, digital HRM allows easy access to the training throughout sites as also across the responsibility-based workforces, thus facilitating a more equitable skill-building approach. These insights collectively suggest that digital HRM technologies act as facilitators, rather than mere administrators, of a culture that is learning-focused, digitizing, amongst other things, mere routine administrativities. By making the opportunities insights-based, easy to access, as also making the approach data-driven, they assist in building up a competencies-strong as also innovation-prepped workforce.

- H$_2$: Digital HRM has a positive and significant effect on employee skill development in Jordanian private hospitals.

2.3. Employee Skill Development and Innovation Adoption

In dynamic and knowledge-intensive sectors like healthcare, the ability to innovate is deeply rooted in the capacity of employees to acquire, apply, and transfer new knowledge (Edgar et al., 2024; Hanandeh et al., 2024; Malik et al., 2022). Employee skill development defined as the intentional improvement of technical, cognitive, and adaptive competencies has been widely recognized as a central enabler of innovation adoption (Sarto et al., 2022). As the technological change accelerates, innovation is no longer driven solely by technology acquisition, but by the human capital, that supports its integration into organizational processes (Barišić et al., 2021; Kess-Momoh et al., 2024). From a RBV, skill development contributes to sustained competitive advantage by enabling employees to engage in complex problem solving, adapt to new systems, and contribute creatively to organizational goals (Barney and Mackey, 2021). In parallel, the TOE framework positions organizational readiness including employee capability as a key contextual determinant of innovation uptake (Baker et al., 2020). Organizations that make staff learning and upskill investments are therefore more suited to welcome and apply innovations. This theoretical argument is supported empirically. After a meta-analysis of 42 healthcare research, Sarto et al. (2022) found that staff development dramatically forecasts both innovation ability and implementation success. In another 2020 study, Eide et al. looked at Scandinavian hospitals and found that upskilled employees were more inclined to accept digital tools in patient care, from electronic health records to AI-assisted triage. Mulyani et al. (2021) also reported that hospital acceptance of service improvements was significantly enhanced through knowledge sharing and training.

In the developing countries where the systems of institutional support might be weaker, the development of skills becomes even more significant. Although the technology infrastructure was low, Juma et al. (2023), who studied the healthcare systems in North Africa, demonstrated that staff learning programs were directly related to the diffusion of clinical process changes. Especially in those areas that require rapid adaptation such as telemedicine and mobile health, Khdour et al. (2022) found in the Jordanian context that hospitals that had special training departments performed better in terms of innovation. Recent research reports that skill development does not only enhance technical proficiency but also activities related to innovation, including experimentation, cross-functional collaboration and creative problem solving (Ferraris et al., 2020). These measures are quite indispensable in hospital environments, where the process of creativity needs to be aligned with regulatory measures and patient safety concerns. Collectively, these findings suggest that the development of employee's skills is a significant source of innovation not only because it enables the adjustment of individuals, but it also creates a culture of preparedness and responsiveness throughout the entire organization.

- H$_3$: Adoption of innovation in Jordanian private hospitals is favorably and significantly influenced by employee skill development.

2.4. The Mediating Role of Employee Skill Development

Even though the direct correlation between digital HRM and the innovation adoption has been thoroughly documented (Hu and Lan, 2024; Ruiz et al., 2024; Zhang and Chen, 2024), recent literature suggests that the intensity of the mentioned relationship tends to be determined by internal capacity of the company to convert technological potential into workforce capacity (Alam, 2025; Lou et al., 2025). Here, employee skill improvement acts as a major tool on which digital HRM systems can shape the results of innovation. Instead of following a linear route, researchers are starting to acknowledge that digital tools can be actually effective when implemented in larger developmental systems that can promote continuous learning and the application of knowledge (Ghosh et al., 2023). This proposal is based on the theoretical foundation of the RBV. Barney and Mackey (2021) assume that the digital technologies are not strategic in themselves, unless coupled with human abilities that cannot be easily imitated. In other words, only in the situation when digital HRM enables employees to provide substantial contribution to innovation, its value may be observed. Equally, in the TOE framework, the availability of talented employees is deemed an organizational facilitator of the adoption of innovations (Baker et al., 2020), implying a mediating role that connects the technological contribution and behavioral delivery.

This reasoning is being justified by empirical literature. In their cross-industry study, Iqbal et al. (2021) established that the beneficial impact of digital HRM on innovation performance was more or less indirect, and it occurred through increased adaptability and learning involvement of employees. Similarly, the study conducted by Chen et al. (2019) revealed that the implementation of cloud based HR systems only enhanced innovation in Chinese hospitals when they were implemented along with an organized skill building programs. The necessity of mediation is even higher in the context of healthcare with its complex regulation and patient safety requirements. Sabuhoro et al. (2023) argued that the digital HRM systems did not support clinical innovation unless they were in line with continuous professional development programs. Mulyani et al. (2021) also found that the linkage between the e-HRM adoption and the service innovation in Indonesian medical centers was completely mediated by the employee training. These results imply that workforce development is not only a consequence of digital HRM, but also one of the channels of generating a broader organizational value by digital HRM. On a regional scale, Al Mahamid et al. (2023) highlighted that skill development programs played a major role in ensuring that digital HRM systems received the most advantages in Jordanian hospitals. In the absence of such programs, the adoption of technology was just skin-deep and could not bring significant innovation benefits. This point highlights the importance of considering employee development as an active, but not passive component of digital transformation strategies. On this theoretical and empirical basis, the following mediation hypothesis is postulated:

- H_4: Employee skill development mediates the relationship between digital HRM and innovation adoption in Jordanian private hospitals.

2.5. The Moderating Role of Leadership Support

Leadership support is widely regarded as a critical contextual factor that influences the success of digital transformation and innovation initiatives (Abu Bakir et al., 2024; Alharafsheh et al., 2022; Weber et al., 2022). In the context of digital HRM, the visible commitment of top management and direct supervisors can influence how such technologies are perceived and used by employees, particularly in environments where change is met with skepticism or resistance (Sikdar and Payyazhi, 2021). While the RBV argues that leadership improves the value of organizational resources including digital HRM by means of their deployment and sustainability, theoretically the TOE framework identifies leadership as part of the organizational context that shapes the adoption and internalization of new technologies (Baker et al., 2020). In digital settings, support for leaders transcends simple verbal endorsement (Alzghoul et al., 2024; Walker et al., 2020). It covers funding for training, encouraging HR-led digital projects, reducing bureaucratic roadblocks, and rewarding creative activity. Particularly in cases when new systems call for behavioral and procedural changes, these activities enable staff members match their actions with strategic objectives (Sabuhoro et al., 2023).

Recent empirical research offers mixed but perceptive data. Transformational leadership, according to Dery et al. (2021), magnified the effects of digital HRM systems on staff performance and creative activity in Australian service companies. Likewise, by raising user buy-in and cross-functional coordination, Shin and Konrad (2022) showed that participation of leaders in digital transformation initiatives enhanced innovative outcomes. Bresciani et al. (2021) underlined in healthcare environments that the leadership's ability to negotiate change was crucial to guarantee that digital initiatives turned into real-world innovative ideas. Nonetheless, support of leaders may not always balance all technology-outcome linkages. For example, a 2019 Aboelmaged and Hashem study on MENA hospitals revealed that although leadership support improved initial technology adoption, it had a limited impact in influencing deeper innovation unless accompanied by structural enablers such distributed decision-making or knowledge-sharing cultures. Likewise, Ferraris et al. (2020) observed that professional autonomy and peer influence could help to control highly professionalized workplaces including the responsiveness of healthcare workers to leadership assistance.

In the Jordanian healthcare scene, where hierarchical systems coexist with great professional skill, leadership support could have a multifarious influence. Although it could help digital HRM systems be implemented, its impact on innovation could rely on how real, consistent, and strategically aligned it is seen to be. Therefore, the present study investigates whether leadership support strengthens the link between digital HRM and innovation adoption, so functioning as a boundary condition either enhancing or limiting the efficacy of attempts for digital transformation.

- H_5: Support of leaders helps to control the link between digital HRM and acceptance of innovations.

3. METHODOLOGY

3.1. Research Design and Context

This study looked at how digital HRM affected uptake of innovation in Jordanian private hospitals using a cross-sectional, quantitative research approach. The methodology examined

specifically leadership support as a moderator and employee skill development as a mediator. The selection of the private hospitals in Jordan was also made as per their increasing interest in technology modernization, their accreditation standards, and their performance as an organization that qualities which create abundant resources to study the digital HRM transformation. The healthcare sector in Jordan is progressively straining to introduce technology improvements, reduce the inefficiencies in running the operations and to increase the service standards. HR departments in this environment have a growing role in the implementation of digital solutions to train and recruit, manage workforce, performance, and plan the workforce (Khdour et al., 2022).

The target population included human resource managers, heads of departments, IT experts, and top administrative members working in accredited private hospitals in Jordan. These individuals have been selected because they are involved in the implementation and evaluation of HR policies and innovative concepts. A purposive sampling method was used to identify the participants who were conscious of their hospital digital HRM systems and innovation initiatives. The information was collected in six weeks using a safe Google Forms questionnaire. The respondents were all volunteers, and confidentiality and anonymity were guaranteed to the participants. The form did not allow repeated responses to the same email in order to avoid duplication of responses. A background statement outlined the purpose of the study, time, and the institutional status of the researcher. The institutional research ethics committee gave its approval to the study ethically. Informed consent was also incorporated into the survey form and had to be accepted prior to participation. Invitations to the survey were sent to 278 professionals through the institutional mailing lists, LinkedIn, and HR networks. Following the reminders, 172 answers were given. Four invalid responses were dropped and the final sample was 168 valid responses.

3.2. Instrument Development

The survey instrument was based on already tested scales and customized to the health care industry. Everything was evaluated through a five point Likert scale of 1 (strongly disagree), to 5 (strongly agree). A pilot test involving 15 HR and healthcare professionals was carried out to make sure that the items are clear and relevant. Some minor adjustments to the wording were done according to the review of experts.

- Digital HRM (8 items): Adapted from Vrontis et al. (2022) and Ghosh et al. (2023), measuring the extent of digitalization in HR processes (e.g., digital recruitment, training, analytics, and performance tracking).
- Employee Skill Development (5 items): Based on scales from Kapoor et al. (2022) and Mulyani et al. (2021), assessing opportunities for learning, professional development, and reskilling through digital tools.
- Innovation Adoption (6 items): Drawn from Sarto et al. (2022) and Naqshbandi and Jasimuddin (2018), evaluating the extent of adopting new technologies, care models, or service processes within the organization.
- Leadership Support (9 items): Adapted from Shin and Konrad (2022) and Bresciani et al. (2021), measuring visible and perceived support by leaders for HR initiatives, innovation efforts, and change management.

4. RESULTS

The data analysis procedures involved data compilation, descriptive statistics and analysis of reliability measures and run the correlation. The study employed SPSS V.21 software to conduct the descriptive statistics as well SMART-PLS V.4 for other analysis process, which is the least version of the program. Firstly, the study checked the multicollinearity of study variables. Next, the present study employed the test of single factor test that proposed by Podsakoff and Organ (1986) for common method bias. None of the single variables accounted for variance (38.80%) that exceeded the threshold value of 50% (Sarstedt et al., 2014). This also depicts that data is free of issue of common method bias. Moreover, regarding data analysis, the method structural equation modelling (SEM) has widely considered in the field of management and social sciences, particularly in the cause-and-effect association of the variables (Hair et al., 2021). Partial least squares structural equation modelling PLS-SEM waives some assumptions and meaningful for complicated model with moderation and mediation paths and effects (Hair et al., 2020).

4.1. Measurement Model

The measurement model refers to an approach that employed in order to assess and check both of reliability and validity (Sarstedt et al., 2014). The rule of thumb of reliability measures through Cronbach's alpha and composite reliability (CR) required to be more than 0.70 (Hair et al., 2020). Examining the construct's convergent and discriminant validity (Hair et al., 2021) helps one to evaluate the validity of the model indicators, therefore addressing the need evaluated here. The average variance extracted (AVE) is the metric used to determine convergence validity. The average variance between a construct and its corresponding indicators is calculated in this paper Hair et al., 2020. The value AVE's requirement should be higher than 0.5 (Hair et al., 2020). The data presented in Table 1 and Figure 1 revealed that every study concept shown good dependability and falls within the reasonable ranges. Conversely, discriminant validity the other hand gauges the uniqueness of a construct (Hair et al., 2020) which signal a construct measures what it is meant to measure (Hair et al., 2021). Different approaches including the Fornell-Larcker criteria or Heterotrait-homomethod ratio (HTMT) criteria evaluate discriminant validity. When the common variance inside a construct surpasses the shared variance among the constructions, the discriminant validity is shown (Hair et al., 2020). Table 2 presents the results of discriminant validity obtained via Fornell-Larcker criteria.

4.2. Structural Model

The inner and structural models demonstrate the association between the constructs being evaluated. The structural model is assessed by determining the relationship between path coefficients amongst the variables or constructs under study. According to

Table 1: Convergent validity

Latent variable	Alpha	AVE	CR
Digital HR capabilities	0.756	0.532	0.866
Innovation adoption	0.843	0.676	0.799
Employee Skill Development	0811	0.598	0.812
Leadership Support	0809	0.590	0.826

Table 2: Discriminant validity

Latent variable	Digital HR capabilities	Innovation adoption	Employee Skill development	Leadership support
Digital HR capabilities	0.764			
Innovation adoption	0.433	0.732		
Employee Skill Development	0.564	0.544	0.799	
Leadership Support	0.321	0.669	0.453	0.450

Henseler (2017), additional analysis involves moderating or mediating effects after the hypothesized path models' direct effects. The path coefficients are standardized values ranging to 1 (Hair et al., 2020). Table 3 showed that digital HR capabilities positively and significantly impact on innovation adoption ($\beta = 0.653$, $P \leq 0.05$), supporting hypothesis 1, digital HR capabilities positively and significantly impact on employee skill development ($\beta = 0.801$, $P \leq 0.05$), supporting hypothesis 2a, employee skill development positively and significantly impact on innovation adoption ($\beta = 0.801$, $P \leq 0.05$), supporting hypothesis 2b. Regarding mediation effect, the result found employee skill development mediates the relationship between digital HR capabilities and innovation adoption ($\beta = 0.221$, $P \leq 0.05$), supporting hypothesis 2. Regarding the moderating effect, as suggested by Ramayah et al. (2018), the product indicator method applies the product of items of the independent variable and moderator variable and then calculates the product's effect on the dependent variable. The results in Table 3 and Figure 2 demonstrate that leadership support doesn't moderate the relationship between digital HR capabilities and innovation adoption ($\beta = 0.016$, $P \geq 0.05$), not supporting hypothesis 3. The model depicted a good predictive quality and accuracy level, as the R^2 value (0.602) for the endogenous construct is satisfactory (Hair et al., 2020). It demonstrates that 60.2% of fluctuations or variance in innovation adoption is explained by digital HR capabilities. Another assessment is Q^2, which assesses the inner model's predictive relevance (Hair et al., 2021). The Q^2 value for innovation adoption, an endogenous variable, is 0.230, confirming the research model's quality through its predictive capabilities.

5. DISCUSSION

This paper has investigated the impact of the digital HRM on the adoption of innovation within the Jordanian private hospitals, and the mediator and moderator under consideration is skill development of employees and the support provided to leaders, respectively. The study based on the TOE framework and the RBV tried to explain direct and indirect ways in which the digital HRM impacts innovation within a complex, resource-sensitive healthcare work environment. The ultimate aim was to determine whether digital HRM activities are functional in increasing the level of innovation practice in healthcare organizations, and find out the circumstances that increase or decrease the association. Findings have proved that innovation adoption is positively and significantly directly influenced by digital HRM. Moreover, the skill development of the employees is another important outcome of digital HRM, but this factor also influences adoption of innovation positively and significantly. The mediation analysis showed that employee skill development moderates the connection between digital HRM and innovation adoption. The moderating effect of leadership support was however insignificant.

Table 3: Hypotheses analysis

Path	β	t-value	P-value	Result
Digital HR ---> innovation adoption	0.653	9.279	0.000	Supported
Digital HR ---> Employee skill development	0.801	3.057	0.000	Supported
Employee skill development ---> innovation adoption	0.275	4.316	0.000	Supported
Digital HR ---> Employee skill development ---> innovation adoption	0.221	4.276	0.031	Supported
Leadership support* Digital HR ---> innovation adoption	0.016	0.827	0.409	Not supported

Digital HRM and innovation adoption (H_1) indicate that the correlation is positive, which is supported by the available literature that suggests the role of digital HRM as a strategic driver of change, particularly in service-based industries, such as healthcare (Vrontis et al., 2022; Al Mahamid et al., 2023). Within the framework of the TOE model, having a digital infrastructure within HR departments would, in turn, enable new work practices, improve information flow, and enable responsive decision-making, which is all based on the implementation of innovation (Baker et al., 2020). The close connection between digital HRM and employee skill development (H_2) indicates the increasing role of digitalization of the HR in the enablement of learning. Recent research (Ghosh et al., 2023; Kapoor et al., 2022) has demonstrated that digital technologies, including AI-based learning paths, mobile training courses, and real-time performance dashboard, can improve the employee involvement in the development activities. By providing flexible and scalable learning capabilities, digital HRM provides increased employee change preparedness within the Jordanian context where traditional training cannot be as cost-effective and logistically impactful.

The great correlation between skill development and innovation adoption (H_3) is appropriate according to Sarto et al. (2022) and Ferraris et al. (2020), who argue that the internalizing of innovation is based on human capital. Innovation adoption among hospitals particularly in clinical and operational processes requires the staff members to have knowledge on the new practices as well as confidence and competence in implementing them. This fact supports the RBV idea that sustainable advantage is not based on technologies but on capabilities (Barney and Mackey, 2021). The result of the mediation effect of the relationship between digital HRM and innovation by the development of employee skills (H_4) is both theoretical and practical. Theoretically, the result supports the rationale that the worth of digital transformation undertakings lies in the capacity of an organization to mobilize and mobilize internal resources in this instance, workforce competencies (Iqbal et al., 2021; Chen et al., 2019). In practice, it implies that the desired healthcare facilities that gain a benefit in terms of

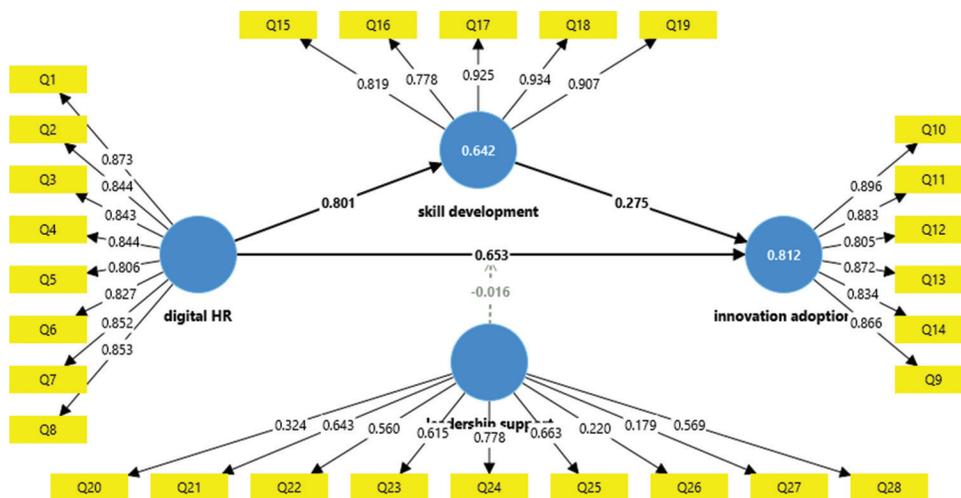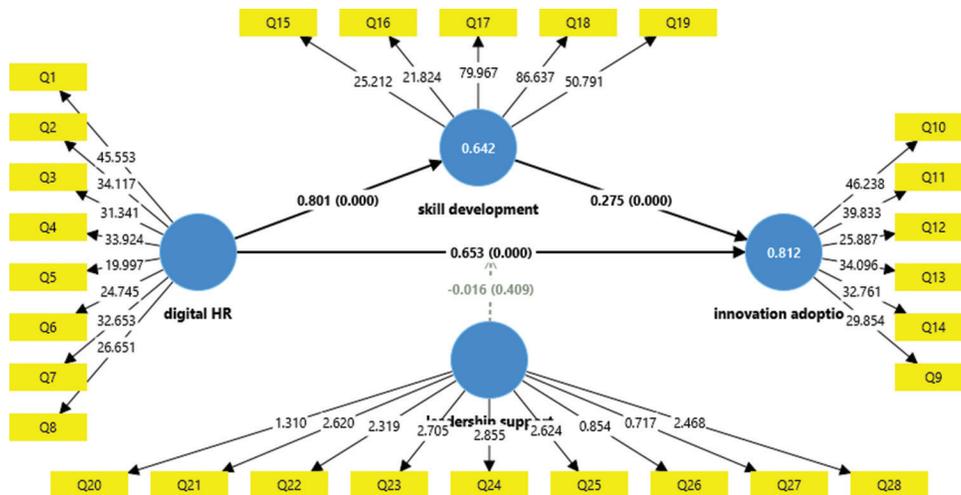**Figure 1:** Measurement model

Figure 2: Structural model

innovation through the application of HR digitalization should be accompanied by active and coordinated development programs.

In spite of this, the relationship between digital HRM and innovation adoption was not significantly mediated by leadership support (H$_5$). This finding contrasts with the findings of the studies emphasizing the necessity of leadership in managing and justifying digital initiatives (Shin and Konrad, 2022; Bresciani et al., 2021). One potential cause is the professionalized nature of the healthcare practice, in which the clinical autonomy and peer learning may assume the leading role instead of the top-down direction (Ferraris et al., 2020). Moreover, leadership assistance may be perceived as a symbolic one, instead of revolutionary in an environment where digital HRM is applied as a compliance or procedural measure (Aboelmaged and Hashem, 2019). This may be related to special dynamics in Jordanian hospitals, as professional power is typically shared across functional units and that decision-making is typically protocol-driven. Within these environments, innovation may be guided by clinical norms and experience at the team level more than opinionated influence. The other reason may be cultural. In collectivist cultures group norms

and peer recognition can stimulate creativity and education than superior support. Instead, the non-significant moderation was responsible by the possibility that the measurement is limited, i.e. that the type of support leadership has produced in hospitals is more of a compliance than transformative nature, which is not consistent with the facilitative behaviors of digital innovation.

6. CONCLUSION

This study set out to investigate how digital HRM influences innovation adoption in Jordanian private hospitals, incorporating employee skill development as a mediating variable and leadership support as a moderating factor. The findings confirmed that digital HRM significantly promotes innovation adoption both directly and indirectly. Employee skill development was found to be a critical mediator in this relationship, reinforcing the idea that digital HRM systems are most effective when paired with deliberate efforts to develop workforce competencies. The findings are a clear empirical support of the RBV argument according to which strategic advantage is based on the mobilization of internal capabilities, in particular, human capital. Regarding the TOE

approach, the adoption of digital technologies in HR operations enhances the innovation base of the organization. Surprisingly, the support of leadership had no effect to mediate the connection between digital HRM and innovation adoption. This insignificant finding indicates that top-down encouragement might be less influential on innovation in some settings like professionalized healthcare settings and the influence of team level factors and the expertise of individuals. Although leadership is still significant, its role can be more subtle and indirect than it is thought.

The research contributes to the digital HRM, healthcare innovation, and strategic human resource development literature in the emerging economy in a number of ways. In practical terms, the results indicate that healthcare organizations aiming at increasing the levels of innovation would prefer to focus on the implementation of digital HRM solutions that are directly related to systematic skill improvement models. The study has a few limitations even though it has its strengths. The cross-sectional design does not allow causal inferences and the results are grounded on self-reported data of only one sector in one country.

Future studies may use longitudinal designs or multi-industry samples to improve the level of generalizability. Furthermore, qualitative research can be used to unravel the contextual explanation of why the support of leadership is not significant. This paper underlines that digital HR is not merely a technological change but also a strategic innovation driver in case it is integrated into systems in which continuous learning is promoted. The merging of digital HRM and skill development programs in the emerging healthcare systems where the rapid change is imminent is a viable solution to sustainable innovation.

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