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# Enhancing Organizational Effectiveness Through Digital HR Transformation

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#### Abstract

This paper aims to investigate how digital technologies affect HR processes and their influence on organizational effectiveness. The fast progression of digital technology has greatly changed HR tasks like recruitment and onboarding, performance management, employee engagement and Communication, learning and development, and administrative efficiency. Through the utilization of digital platforms, companies can improve operational efficiency, streamline decision-making processes. Data were collected from 284 HR professionals and managerial staff using a structured questionnaire, adopting a quantitative, cross-sectional research design. Preliminary diagnostics were conducted in SPSS, and Structural Equation Modeling (SEM) analysis was run in Smart-PLS. The results show that Digital HR Transformation has a substantial and statistically significant positive impact on Organizational Effectiveness ( $\beta = 0.778$ , p < 0.001). Talent acquisition, management, learning, and development were the most influential dimensions of digital transformation efforts. They significantly impacted digital transformation, while data-driven decision-making, cybersecurity, and data privacy contributed marginally. Digital Practices Human Resource Management Practices: implications for Organizational Agility, innovation, and Performance This research further emphasizes the strategic role of digital HR practices in fostering organization agility, innovation, and performance. This paper offers theoretical and practical insights by demonstrating that integrated digital HR systems enable organizational sustainability, especially in emerging and technology-based sectors.

Keywords: Digital Transformation, Human Resource tasks, Organizational Effectiveness, Telecommunications.

# Introduction

Digital transformation in today's business environment represents a necessary strategic response to improve operations, achieve success, and maintain competitiveness in a rapidly changing digital landscape. Digital transformation has significantly influenced human resource management (HRM), leading to changes in HR roles that enhance productivity, decisionmaking, and employee satisfaction (Guenole et al., 2017). Digital transformation is essential for organizations looking to improve their efficiency and customer experience, not just a choice. As stated by Vial (2019), digital transformation requires substantial adjustments in organizational processes, capabilities, and models in order to take full advantage of the opportunities presented by digital technologies. This change assists companies in better adapting to market shifts and meeting customer needs, ultimately encouraging innovation and expansion (Fitzgerald et al., 2014). Additionally, Hess et al. (2016) emphasizes the positive impact of implementing digital transformation on companies, leading to enhancements in performance metrics such as higher revenue growth and market valuation. Hence, it is essential for businesses looking to succeed in

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the modern economy to prioritize digital transformation. Organizations are under pressure to innovate and enhance their operations through transformation and change. This is a result of intricate shifts in the business landscape to reach their company objectives. The significance of organizational effectiveness lies in its ability to demonstrate how successful an organization is in reaching its objectives. Peter Drucker (1992) argues that organizational effectiveness is the capability to maximize the usage of resources in order to accomplish objectives. Organizational effectiveness was also known as organizational "success" or "value" and primarily focused on accomplishing goals (Georgopoulos & Tannenbaum, 1957). Organizational effectiveness is a measure of how well an organization achieves its goals and objectives, reflecting its overall performance.

The telecommunications industry in Jordan is encountering major obstacles in preserving organizational efficiency due to fast technological progress and growing market rivalry. Many companies in the telecommunications sector face challenges in improving their operations and sustaining performance, despite the importance of this industry in driving economic growth and digital connections. The rise of digital transformation presents a chance for these organizations to improve their efficiency by simplifying processes, enhancing decision-making, and promoting innovation. Nevertheless, the utilization and incorporation of digital technologies in the organizational structure are constrained by several obstacles such as lack of digital skills and inadequate infrastructure. This research seeks to explore how digital transformation affects organizational performance in the telecommunications sector of Jordan. Comprehending these dynamics is crucial for creating tactics that allow telecommunications firms in Jordan to benefit from digital transformation for enhanced operational efficiency, customer satisfaction, and overall competitiveness. The telecommunications sector in Jordan is a prime example of an industry undergoing significant digital transformation. This industry within Jordan's economy has implemented digital innovations to improve efficiency and customer service, playing a crucial role. Companies in this sector increasingly utilize digital HR technology to streamline recruitment, enhance performance assessment, and boost employee engagement (Bondarouk & Brewster, 2016). Digital tools and platforms transform HR processes, improving productivity, decision-making, and employee engagement (Bondarouk et al., 2017). This study investigates the telecommunications sector in Jordan to illustrate how digital HR processes can enhance companies' efficiency. The method of hiring and integrating new employees has been made more efficient.

# **Literature Review**

Recent literature discusses the contribution of innovation strategy to human resources management (HRM), especially in promoting organizational effectiveness. As described in several studies, organizations employing innovative HRM strategies are more likely to experience superior organizational performance by significantly improving employee performance, job satisfaction, and overall productivity and efficiency at work (Health et al., 2020). Nevertheless, creative and operational barriers exist within the implementation momentum in the face of formal benefits. As per Brown and Green (2021), innovation in HRM, which includes digital transformation, flexible work patterns, and performance analytics, increases effectiveness; however, it also brings the need for cultural change in the organization. This may lead to resistance, especially in traditional business structures, as employees and management must adapt to newer technological tools and methodologies. Jones (2019) supports this by stating organizations with rigid hierarchical structures often face challenges in effectively integrating innovative HRM practices. Furthermore,

Empirical research indicates that strategic HRM innovation is not standardized. Innovation strategies, however, are influenced by other parameters like industry type, organizational size, and employee demographics (Taylor & Lee, 2020). Technology-oriented firms can reap considerable advantages from implementing an AI-based talent acquisition mechanism and advanced talent analytics, considering service-oriented companies may focus on delivering employee engagement programs and leadership development initiatives (Garcia et al., 2022). Therefore, if HRM innovation is adapted well, it plays a vital role in the success of the HRM innovation itself. While innovative human resource management (HRM) practices yield desirable outcomes, some scholars warn about possible downsides. Patel & Richardson (2021) mentioned the over-reliance on technological innovations in HRM and the depersonalization of relations between an organization, its workers, and third parties. This could affect employee morale negatively and decrease the sense of belonging in the workplace. In response, hybrid models that combine technological progress with human-centered approaches are suggested (Miller, 2020). A third central theme in the literature concerns leadership and its role in HRM innovation. Research by Anderson et al. (2021) emphasizes the precise impact of leaders who foster a substantial continuous improvement and learning culture on the success of implementing new HRM systems.

## **Digital HR Transformation**

In today's business world, digital transformation is crucial for improving Human Resources (HR) practices and overall organizational effectiveness. The incorporation of digital technologies in HR processes is changing traditional methods and bringing in new aspects that enhance productivity, involvement, and strategic cohesion (Qahman et al., 2025). This review of literature examines five main aspects of Digital HR Transformation: Recruitment and Onboarding, Performance Management, Employee Engagement and Communication, Learning and Development, and Administrative Efficiency.

Recruitment and Onboarding: The integration of AI-powered tools for candidate sourcing and screening, which has digitized recruitment procedures, has enhanced the efficiency of hiring processes and improved the quality of new hires (Dwivedi, Y. K., Hughes, D. L., et al. 2020). Virtual onboarding platforms make it easier for new employees to integrate, saving time and resources compared to traditional onboarding methods (Sani, et. al. 2023). Recruiting and welcoming new employees has been greatly enhanced by AI tools for finding and evaluating candidates, leading to faster and higher-quality hiring processes. Van Esch and Black (2019) highlight that AI's capability to analyze extensive datasets and identify patterns empowers organizations to pinpoint the best-fit candidates for specific roles. By assessing resumes, social profiles, and other relevant data, AI algorithms can provide valuable insights into a candidate's qualifications, skills, and potential cultural fit within the organization. Additionally, Sundarapandiyan Natarajan et al. (2024) highlight that AI-driven recruitment tools streamline candidate screening by analyzing resumes, assessing qualifications, and efficiently identifying the best candidates to match job requirements. This reduces hiring time and enhances the quality of hires. These platforms offer onboarding experiences that are interactive and tailored to individuals, aiding new employees in adjusting efficiently and successfully.

**Performance Management**: Utilizing digital systems provide immediate feedback and advanced data analysis, allowing managers to base decisions on data (Peterson & Mann, 2022). These systems streamline performance evaluations, guaranteeing uniformity and impartiality in assessing employee performance (Eder, P., & Eisenberger, R. 2008). The use of digital

performance management systems has changed how companies evaluate and improve employee performance. Sahlin and Angelis (2019) points out that digitalization and big data present various opportunities for capturing data to facilitate real-time performance measurement and management (Automating performance evaluations assists in preserving fairness and precision, consequently reducing the potential for prejudice and mistakes. Consistently tracking and reviewing performance metrics allows organizations to pinpoint high achievers and areas for enhancement, leading to more targeted and impactful development efforts.

**Employee Engagement and Communication**: Digital communication tools and engagement platforms help create a workforce that is connected and engaged through employee engagement and communication. Eisenberger et al. (2018) states that promoting transparency, collaboration, and employee satisfaction improves organizational culture. The use of digital communication tools and engagement platforms has greatly improved employee connectivity and involvement. Sun, et. al. (2023) highlight how these tools enhance organizational culture by fostering transparency, collaboration, and employee satisfaction. Intranets, social networks, and mobile apps allow for immediate communication and collaboration, bridging gaps and keeping employees informed and engaged. Having improved channels of communication is crucial for cultivating a cohesive and driven team, which is necessary for reaching corporate goals.

**Learning and Development**: AI-driven e-learning platforms and customized training initiatives offer workers adaptable and individualized learning opportunities (Chen, Z. 2023). Digital training solutions guarantee ongoing skill enhancement, crucial for staying ahead in competition (Elsayary, A. 2023). The evolution of e-learning platforms and AI-driven personalized training programs has revolutionized employee development. Al-Lim and Lee (2024) note that AI-driven training adjusts to individual learning styles and career paths, guaranteeing that employees get the most relevant and efficient training. Maintaining this continuous learning approach is crucial for staying abreast of the swiftly evolving business landscape.

Administrative Efficiency: Increasing administrative efficiency by automating HR tasks like payroll and benefits management helps cut operational costs and reduce human errors (Sarkar, 2023). HR Information Systems (HRIS) merge different HR responsibilities, providing a cohesive system for overseeing employee information and operations (Peterson & Mann, 2022). The automation of administrative HR tasks like payroll and benefits management has improved operational efficiency. According to Vijai and Mariyappan (2023), automation reduces operational costs and minimizes human errors, freeing up HR professionals to concentrate on strategic initiatives. Digital transformation also boosts organizational agility, enabling quick adaptations to market changes (Ly, 2023).

The incorporation of digital technologies into HR processes has a significant effect on organizational effectiveness. Improved productivity: Automation of HR tasks decreases the need for manual labor, enabling HR experts to concentrate on strategic projects (Vandy, 2023). Improved Decision-Making: Data analysis offers opportunities to understand workforce patterns, facilitating well-informed decision-making (Garcia, A., & Adams, J. 2023). Enhanced HR procedures result in increased employee satisfaction and retention rates, according to (Sypniewska, B., Baran, M., & Kłos, M. 2023). Organizational agility is also enhanced, the rapid adaptation to market changes is improved by digital transformation, enhancing overall agility in organizations (Brown, 2023).

#### **Organizational Effectiveness**

Organizational effectiveness evaluates an organization's success in reaching its objectives through an examination of the hurdles faced at the institutional performance level. It helps in assessing the organization's capacity to effectively handle and minimize the impacts of both internal and external work environments (Jane and Chi-Wei, 2015). The effectiveness of an organization is a crucial assessment of its success in accomplishing its goals and objectives. It includes multiple aspects such as employee productivity, operational efficiency, customer contentment, and financial results. Richard and colleagues (2009) suggest that organizational efficiency can be measured using a balanced scorecard method, which looks at performance in financial, customer, internal processes, and learning and growth areas. High-performing organizations succeed by integrating their strategic objectives with day-to-day operations, guaranteeing sustained success and longevity (Kaplan & Norton, 1996). Additionally, leadership plays a crucial role in promoting a culture of ongoing improvement and innovation to improve organizational effectiveness. Even though digital transformation helps by improving processes and allowing for data-driven decision-making, the main focus is still on enhancing human resources and organizational structures to achieve better performance (Westerman et al., 2014).

#### **Hypothesis Development**

Digital Human Resource Transformation (Digital HR) has emerged as a strategic necessity for enhancing organizational effectiveness in the digital age. This transformation transcends traditional HR practices by integrating technologies that promote agility, data utilization, and strategic alignment with organizational goals (Guenole, Ferrar, & Feinzig, 2017). The significance of this relationship is evident in sectors like telecommunications, where competition and technological disruption demand operational excellence and innovation (Bondarouk & Brewster, 2016). Integrating digital technologies into HR operations significantly impacts organizational efficiency. Sidana (2024) highlight that automated HR tasks reduce manual workloads, allowing HR professionals to prioritize strategic initiatives that add value to the business. Improved ability to make decisions, aided by utilizing data analytics, offers valuable understanding of workforce patterns, facilitating well-informed decision-making (Qadeer & Davis 2023). Digital transformation empowers organizations to improve their agility, facilitating swift adjustments to market fluctuations (Quader, 2024). This review underscores the significant impact of digital technologies on HRM, illustrating their influence on diverse HR processes and overall organizational effectiveness. It emphasizes how digital technologies can bring about substantial changes in HRM, showcasing their effects on different HR processes and the overall effectiveness of organizations. This study examines the advantages and difficulties of implementing digital HR functions using recent literature and real-life examples.

Digital transformation greatly boosts organizational efficiency through simplifying operations, enhancing decision-making, and promoting innovation. Through the incorporation of digital technologies, businesses can enhance their operations, resulting in improved efficiency and productivity (Vial, 2019). This change allows for analyzing data in real-time, leading to improved strategic decision-making and increased organizational flexibility (Kane et al., 2016). In addition, digital tools enhance communication and teamwork among workers, leading to increased performance and commitment (Hess et al., 2016). Research has indicated that businesses that utilize digital transformation can experience improved financial performance and customer satisfaction, highlighting the crucial importance of digital efforts in enhancing

organizational success (Verhoef et al., 2021). Therefore, organizations must adopt digital transformation to improve their efficiency and stay competitive in today's business landscape.

One component of Digital HR is Talent Acquisition and Management, which includes AIassisted solutions that help in candidate sourcing, screening, and onboarding. Such systems decrease the time-to-hire and improve recruitment quality by matching the candidates' profiles with the organization's underlying culture or the crew profile (Sharma & Dhingra, 2024; Van Esch & Black, 2019). Companies apply hiring intelligence, delivering faster and more accurate hires, improving the talent pool, and directly supporting organizational performance. Learning and Development is another significant driver, as organizations leverage AI-driven e-learning platforms that offer personalized and continuous skill enhancement. This matches dynamic business needs aligned with employee competencies (Chen, 2023; Al-Lim & Lee, 2024). With digital upskilling programs, enterprises significantly boost their employees' readiness for innovation and change, further strengthening the organization's adaptability and ensuring longterm efficacy (ElSayary, 2023). Data-driven decision-making adds a new dimension to HR operations, providing profound insights into workforce trends, performance gaps, and strategic alignment. Data analytics shifts HR operations from transactional to strategic, allowing performance-based decision-making for a more effective allocation of resources and employee engagement (Garcia & Adams, 2023). Research supports that organizations that use HR analytics achieve greater alignment between human capital strategies and business performance (Guenole et al., 2017). In addition,

Cybersecurity and Data Privacy are among the most critical HR topics in the digital age. Compliance with privacy regulations and secure employee data management builds trust and protects organizational assets (Ly, 2023). Mismanagement of sensitive data can lead to damage to reputation and business operations. Therefore, securing digital HR systems is the basis of organizational integrity and efficiency. Such theoretical arguments are further supported by empirical evidence from this study. The analysis showed that Digital HR Transformation had a powerful and positive impact on Organizational Effectiveness ( $\beta = 0.772$ , p < 0.001), with path coefficients being exceptionally high for Learning and Development ( $\beta = 0.971$ ) and for Talent Acquisition and Management ( $\beta = 0.969$ ). These results confirm previous analyses by different authors, such as Sahlin and Angelis (2019) and Vial (2021), regarding the need for HRM to innovate digitally to achieve competitive advantage and operational excellence. Hence, the following is assumed:

# H1: Digital HR Transformation has a significant and positive effect on Organizational Effectiveness (Learning and Development, Talent Acquisition and Management, Data-Driven Decision Making, and Cybersecurity and Data Privacy).

#### **Conceptual Framework of this Study**

The conceptual framework that this study follows and the hypothesized relationship between the two constructs is illustrated in Figure 1. The framework is based on theoretical and empirical literature that concludes Digital HR Transformation has a direct and significant positive effect on Organizational Effectiveness. This transformation is visualized as a multi-dimensional construct that reflects the four pillars: Talent Acquisition and Management, Learning and Development, Data-Driven Decision Making, and Cybersecurity and Data Privacy. The HEAT framework then provides a level of data-driven context for these four functions, representing the leading and measurable spaces of digital HR innovation on record (Burnside, 2016; Taylor & Kotler, 2018; Cope & Dewe, 2020; Qahman et al., 2025). AI-driven recruitment for Talent **Journal of Posthumanism**  Acquisition and Management, such as retention tools, improving the quality and speed of recruiting and onboarding processes. Learning and Development reflects the uptake of personalized, AI-driven e-learning initiatives that develop employee skills to address changing organizational requirements. Analytics in Data-Driven Decision Making- This pipeline uses analytics to demonstrate how HR practices & workforce planning reflect transparency, accuracy, and strategic alignment of business. Cybersecurity and data privacy focus on protecting sensitive HR data, an essential aspect of preserving employee trust and meeting compliance requirements in digital HR environments. The Conceptual Framework of this study was adapted from the literature review, as shown in Figure 1.



Figure 1: Conceptual Framework

There is an expected positive and direct correlation between Digital HR Transformation and Organizational Effectiveness, emphasizing that improvement in digital HR practices induces better results, flexibility, and goal accomplishment at the organizational level. In its original form, the framework does not encompass mediators or moderators but focuses on digital HR innovations' basic effect on organizational outcomes. This phenomenon enables a straightforward analysis of the significant aspects of the independent variable and their joint impact on organizational success in the Jordanian telecommunications sector. This conceptual model can thus be seen as one possible way of conceptually organizing the individual hypotheses (H1) for empirical testing of a theory and a guideline for empirical data collection and analysis into the next step of research.

# Methods

This study used a quantitative, cross-sectional research design to investigate the impact of Digital HR Transformation on Organizational Effectiveness evidence from the Jordanian telecommunications sector. A quantitative approach was justified because it empirically tested hypotheses and quantified the strength of relationships among multiple constructs (Hair et al., 2019). In the context of the technological advancements and organizational changes happening in the Jordanian telecom sector, this context was conducive to examining the adoption and

impact of digital HR practices (Maabreh, 2024; Lootah, 2024). 1. Data were then gathered via a structured questionnaire that was electronically disseminated to the HR professionals, middle and senior management, as well as the administrative set of people across different telecommunications companies. We designed the questionnaire by adapting established measurement scales from the literature (e.g., Dwivedi et al., 2020; Guenole et al., 2017) and adopted a pilot test to ensure clarity, relevance, and internal consistency. The instrument consisted of six key constructs: (1) Talent Acquisition and Management, (2) Learning and Development, (3) Data-Driven Decision Making, (4) Cybersecurity and Data Privacy, (5) Digital HR Transformation (with the latter operating as a second-order construct), and (6) Organizational Effectiveness.

The survey yielded a total of 284 valid responses, which exceeds the minimum sample size required for performing Structural Equation Modeling (SEM) through Partial Least Squares (PLS), particularly for multi-latent variable models (Hair et al., 2019). Respondents needed to be sufficiently familiar with digital HR practices in their organizations, and hence, purposive sampling was used to isolate appropriate respondents in the sample. The relatively high response rate and demographic representation of participants improved the generalizability of sector findings. The data were analyzed in two stages. SPSS was used for preliminary analysis of the data, including tests of normality, examination of missing data, outliers, and descriptive information. Reliability tests (e.g., Cronbach's alpha) were employed to measure the internal consistency of constructs. The recommended threshold is 0.70; here, all variables exceeded it (see Table 2). The data were then imported into SmartPLS 4 for SEM analysis. Due to PLS-SEM being a robust method for assessing causal relationships among complex models with both formative and reflective constructs and for exploratory studies involving moderate sample sizes (Hair et al., 2021), it was ideal in the current study. Two stages of analysis were performed: The measurement model (to assess the reliability of the constructs, as well as convergent and discriminant validity) and the structural model (to evaluate path coefficients, effect sizes, and predictive relevance).

The measurement model indicated good psychometric properties, as Composite Reliability (CR) and Average Variance Extracted (AVE) were above the required criteria (CR > 0.70; AVE > 0.50). Discriminant validity was established based on the Fornell–Larcker criterion and HTMT ratio. Results of the structural model showed that Digital HR Transformation has a positive and significant impact on Organizational Effectiveness, thus confirming central hypothesis H1: all path coefficients between Digital HR and its dimensions. Talent Acquisition and Management, Learning and Development, Data-Driven Decision Making, and Cybersecurity were significant at p < 0.001, with high T-stat and R<sup>2</sup> values, and showed a significant predictive power.

# Results

The results of an empirical study regarding the effect of Digital HR Transformation on Organizational Effectiveness are illustrated in Figure 2. This figure depicts the resulting outcomes for each of the four critical dimensions of digital HR: Talent Acquisition and Management (TAM), Learning and Development, Data-Driven Decision Making (CDM), and Cybersecurity and Data Privacy (CDP) that together yield Organizational Effectiveness (OE). Figure 2 provides a structured overview of each domain's relative strength and performance levels while facilitating an evaluation of the influence of each sub-construct in a specific, quantifiable manner via model fit resulting from their standardized indicator loadings as

presented in the model testing output. Organizational Effectiveness (OE) is calculated using a set of indicators (OE1-OE10). Using multiple indicators reflects a holistic view of the organization's efficiency and effectiveness improvement process.



Figure 2: Measurement Model

As illustrated in the figure, Talent Acquisition and Management (TAM) shows high internal consistency and reliability, where TAM1 has a loading of 0.905. These findings confirm previous literature that connects digital recruiting methods to enhanced hiring performance and organizational flexibility (Van Esch & Black, 2019). Excelling at this means that using AIbased tools and predictive algorithms substantially increases the efficiency and speed of the talent management process. Learning and development is also the second-highest-performing domain, boasting an indicator loading of 0.973. The strength of this dimension indicates the organization's commitment to ongoing professional development, a key cornerstone of adaptive capacity and innovation (Chen, 2023; ElSayary, 2023). Indeed, this aligns with critical success factors identified in the previously published literature that reinforces the importance of digital learning in equipping a future workforce. Similarly, DDDM1 and DDDM2 have factor loadings above 0.920, indicating the organization utilizes HR analytics for informed decision-making and strategic problem-solving. It's especially crucial in fast-moving markets like telecommunications, where timely insights provide a competitive advantage. The strong performance achieved in this dimension also indicates the maturity of an organization's culture and its desire to make decisions based on evidence rather than just gut feeling. Cybersecurity and Data Privacy (CDP), another one of the significant cornerstones of digitally presented HR environments, also shows solid performance by its indicators, with scores between 0.880 and 0.922. This indicates that, in the current digital landscape where reputational and legal crises due to data breaches loom, strong scores in this realm showcase the organization to maintain

integrity, trust, and digital security in HR systems (Ly, 2023; Taylor & Kotler, 2018). Table 1 shows the findings of internal consistency and convergent validity tests for assessing the reliability and validity of the constructs in the structural model. The tests using SmartPLS will present four key indicators: Cronbach's Alpha, Composite Reliability (rho\_a and rho\_c), and Average Variance Extracted (AVE). The constructs under investigation are the five core dimensions of Digital HR Transformation—namely, Talent Acquisition and Management, Learning and Development, Data-Driven Decision Making, Cybersecurity, and Data Privacy— and the overarching constructs of Digital HR Transformation and Organizational Effectiveness.

Variables and dimensions	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Cybersecurity and Data Privacy	0.944	0.945	0.957	0.818
Data-Driven Decision Making	0.935	0.936	0.953	0.836
Digital HR Transformation	0.951	0.953	0.959	0.747
Learning and Development	0.917	0.918	0.941	0.801
Organizational Effectiveness	0.955	0.961	0.962	0.718
Talent Acquisition and Management	0.909	0.914	0.936	0.786

 Table 1: Measurement Model Reliability and Validity

As illustrated in the first table (1), a high internal consistency can be observed for all constructs (Cronbach's Alpha is well above the Nunnally and Bernstein (1994) recommendation of 0.70). Organizational Effectiveness, Digital HR Transformation and Cybersecurity & Data Privacy exhibited the highest overall alpha values of 0.955 0.951 and 944 respectively. These high values indicate that what we used to measure each construct is reliable and consistently reflects the read dimensions. Additionally, all constructs exceed the threshold values of 0.70 for Composite Reliability (CR) (rho a and rho c), and their values are more significant than 0.94, confirming high internal consistency. For instance, Data-Driven Decision Making obtained a CR (rho c) of 0.953, and Learning and Development held 0.941, proving strong reliability regarding the model scale. Another key aspect is Average Variance Extracted (AVE), which indicates how much the construct accounts for its indicators. Fornell and Larcker (1981) suggest that the AVE should be equal to or higher than 0.50; in our case, since all constructs are above this rule, we can conclude that there is no issue here. AVE values range from 0.718 (Organizational Effectiveness) to 0.836 (Data-Driven Decision Making), thus confirming convergent validity (Wafa'Q et al., 2022; Issaa, 2024). These findings confirm the constructs' internal consistency and ability to reflect the theoretical constructs from which they were developed accurately.

Structural model analyzing the interrelation between the primary constructs of the digital HR transformation ecosystem and their contribution to organizational effectiveness. Figure 1 reports

the path analysis of the PLS-SEM with Latent Variables represented as blue circles and Manifest or Input Variables (MV) represented as yellow rectangles. Through the figures, each construct is measured by several reflective indicators, whose loadings (with their corresponding p-value in brackets, all p < 0.001 statistically significant) are reported next to the paths. Digital HR Transformation (0.747) is tentatively taken as a mediating construct of the four significant antecedents, which include Learning and Development (LD) (0.801), Talent Acquisition and Management (TAM) (0.786), Data-Driven Decision Making (DDDM) (0.836), and Cybersecurity and Data Privacy (CDP) (0.818). For each of the five exogenous variables, the path coefficients (final values) along Digital HR Transformation are significant (between 0.670 and 0.971). The strongest direct effects on Digital HR Transformation are by TAM (0.969) and LD (0.971), confirming they are prerequisites for transformation initiatives. Digital HR Transformation thus directly influences Organizational Effectiveness (0.718) at a path coefficient of 0.778 and is again significant at p < 0.001. Ten indicators (OE1–OE10) comprehensively encapsulate the Organizational Effectiveness construct, all exhibiting good to strong loadings (0.695 to 0.921), substantiating the robustness of the construct in capturing perceptual performance outcomes.



Figure 3: Structural Model

The structural model shown in Figure 2 demonstrates the empirical support explaining the significance of digital transformation in human resources as an action of the channel by which key HR practices affect organizational results. Perhaps most interestingly, learning development, talent acquisition, and management surface as the single most impacted drivers of digital transformation, suggesting that talent-driven strategies should be at the top of businesses' digital transformation journey. Although all four antecedent constructs significantly affect

transformation, Data-Driven Decision Making, Cybersecurity, and Data Privacy show relatively low path coefficients (0.670 and 0.685, respectively) despite their high internal reliability. This may indicate that while structurally, these factors should be highly influential, their impact on transformation efforts is somewhat less significant.

The endogenous constructs also show high R<sup>2</sup> values (0.747 for Digital HR Transformation and 0.718 for Organizational Effectiveness), which reflects the model's explanatory power and shows that the model explains a lot of variance. The high and consistent loadings and path coefficients validate the measurement and confirm convergent validity and good model fit. To summaries, Figure 2 presents a compelling high-level representation of how the basics of HR come together through digital transformation processes and lead to improving organizational performance. The outputs of statistics reflecting the structural relationships obtained from the results of the PLS-SEM analysis are shown in Table 2. It encapsulates the influence and connectedness of the Digital HR Transformation journeys to five key constructs: Cybersecurity Privacy, Data-Driven decision-making, Learning & Development, Organizational Effectiveness, and Talent Acquisition & Management. This table reports the original sample estimates (O), the sample means (M), as well as the standard deviation (STDEV), t-statistic, and p-value of each path, which also provides insights into both the effect sizes and the significance of these relationships.

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
DigitalHRTransformation->CybersecurityandData Privacy	0.685	0.686	0.074	9.294	0.000
DigitalHRTransformation->Data-Driven->Decision Making->	0.670	0.671	0.073	9.233	0.000
DigitalHRTransformation->LearningandDevelopment	0.971	0.971	0.005	197.617	0.000
DigitalHRTransformation->Organizational->Effectiveness->	0.778	0.777	0.040	19.312	0.000
DigitalHRTransformation->TalentAcquisitionandManagement	0.969	0.969	0.005	193.579	0.000

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Table 2 supports the proposed model's structural validity and strength. Univariate regression analysis shows all significant paths with strong t-values and small p-values, suggesting these

relationships are statistically significant and aligned with theoretical expectations. The highest path coefficients associated with learning and development and talent acquisition and management underscore the importance of workforce development and talent strategies to the digital transformation agenda. Digital HR transformation program is not a bolt-on or additional to your talent management processes but a critical enabler.

The most significant ones are the paths from Digital HR Transformation to Learning and Development (O = 0.971) and Talent Acquisition and Management (O = 0.969), identifying the high path coefficient and low standard deviation (0.005 to each) with high t-value (197.617 and 193.579, respectively). Overall, such low ORs (odds ratios) combined with very high (98% and more) stability of associations highlight that overall forces driving its (digital solutions) manifestation are strongly guided by the strategic talent agenda of the enterprises. The route to Organizational Effectiveness shows a high and statistically meaningful impact (O = 0.778, t = 19.312), confirming that digital HR transformation matters for improving the organization's overall effectiveness. As for the other potential paths, Cybersecurity and Data Privacy (O = 0.685) and Data-Driven Decision Making (O = 0.670) both represent statistically significant relationships; however, they reach slightly lower magnitudes as indicated by t-values (O = 9) and p-values (p < 0.001). These outcomes further bolster the notion that the pursuits of digital transformation strongly correlate with improved HR competencies in both data governance and analytical decision-making.

The influence on Cybersecurity and Data-Driven decision-making is considerable. Still, it is lower in path coefficients, implying that these capabilities, while integral, may take longer to develop or require other additional enablers external to HR (e.g., IT infrastructure and data maturity). We have also seen a strong association with organizational effectiveness, which [11] confirms how digital HR capabilities mediate in reaching overarching business goals. An example of a straightforward path analysis model with latent variable (LV) scores is shown in the figure below, with four antecedents. Cybersecurity and data privacy data-driven decision learning development acquisition, management Transformational organizational effectiveness. This model is consistent with the framework of a second-order construct where first-order latent variables are used to predict the core second-order construct (Digital HR Transformation ( $R^2 = 0.800$ )), which predicts (subsequently) Organizational Effectiveness ( $R^2 = 0.718$ ).



Figure 4: Structural Path Model

The path coefficients from LV scores to Digital HR Transformation are all statistically significant (p < 0.001) and substantially high: Cybersecurity and Data Privacy (0.885), Data-Driven Decision Making (0.875), Learning and Development (0.907) and Talent Acquisition and Management (0.910). However, the coefficients indicate a relatively balanced and substantial impact of all four constructs on the digital transformation of HR, especially on talent-oriented constructs. Similarly, strong is the link between Digital HR Transformation and Organizational Effectiveness (path coefficient = 0.772, p < 0.001), thus supporting Digital Transformation as a mediator of the relationship between HR competencies and other organizational productivity. The Organizational Effectiveness construct comprises ten indicators (OE1–OE10), all with high and significant loadings (0.694–0.921), showing an exceeding high internal consistency and construct validity.

The latent variable score-based structural model further supports the results from previous PLS-SEM analyses but validates them in a more aggregated and interpretable format. Using LV scores also increases parsimony and emphasizes the second-order influence of core HR dimensions on digital transformation — thus facilitating interpretation relevant to making strategic decisions. The significant path coefficients observed from each predictor variable indicate that isolated factors do not spur the digital transformation of HR. Still, they result from the amalgamation of technological and talent-focused initiatives. Additionally, the proximity of R<sup>2</sup> values (0.800 for Digital HR Transformation and 0.718 for Organizational Effectiveness) with the more fine-grained model highlights the case for model robustness. The construct's high explanatory power facilitates its importance in theory modeling and implementation. Table shows the output of path analysis for the model of Digital HR Transformation and Organization Effectiveness as a direct relationship, analyzed for LV (latent variable) score. (2) The original sample path coefficient (O) and the bootstrapped sample mean (M = 0.773) are very close, confirming that model stability and consistent results across bootstrap samples have been achieved. The total path value's low standard deviation (0.035) leads to a very high t-statistic

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(22.004), well above the commonly used significance levels. This path is thus statistically significant at the 0.001 level, as evidenced by a p-value of 0.000.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
DigitalHRTransformation->OrganizationalEffectiveness	0.772	0.773	0.035	22.004	0.000

Table 3: Direct Effect Results

The one-way result supports that Digital HR Transformation is a Nuclear Factor that accelerates Organizational Effectiveness. The magnitude of the coefficient (0.772) suggests a large effect size; thus, increases in HR digital capabilities are significantly related to increases in organizational performance outcomes. The very high t-statistic and extremely low p-value of this result further support the overall model's structural validity. The low difference between the original and the mean path coefficients indicates the stability of the suggestive estimation, which is useful when dealing with latent variable scores that often cut across indicator-level complexity. Practically, this inquiry implies that investments in HR digitalization, encompassing tools, practices, and competencies, are expected to pay off significantly in terms of agility, performance, and operational effectiveness.

# Discussion

The results of this study provide confirmation and extension to previous studies related to the effect of Digital HR Transformation on Organizational Effectiveness, specifically in the context of telecommunications organizations in Jordan. Consistent with the findings of Guenole et al. (2017) and Dwivedi et al. (2020), the results of this study illustrated how digital tools play an essential role in HRS by improving recruitment, learning, decision-making, and data security. The high structural path coefficients of Talent Acquisition and Management (0.969) and Learning and Development (0.971) with Digital HR Transformation corroborate the findings in prior literature, underscoring the significant impact of talent-centric strategies on driving digital transformation (Van Esch & Black, 2019; Chen, 2023). This reveals that workforce development should remain a strategic priority within successful digital HR% implementation. Furthermore, the investigation corroborates Smith's (2020) and Burnside's (2016) assessments that organizations with well-aligned digital HR systems experience enhanced efficiency, innovation, and agility. Similarly, the strong influence of Digital HR Transformation on Organizational Effectiveness (path coefficient = 0.778) echoes their assertions that they are not just operational tools but also strategic outcome enablers. Likewise, the outcomes also agree with Garcia and Adams's (2023) findings about the strategic advantage of using data to make informed decisions. This highlights the importance of HRA in informing the planning of organizations and their agility. However, there are subtleties to this study's findings that give a more nuanced picture. Though Cybersecurity and Data Privacy and Data-Driven Decision Making exhibited significant reliability and validity, their lower path coefficients, at 0.685 and 0.670, respectively, indicate these domains, while impactful, may not directly correlate to transformational outcomes in the near term. This partly contradicts Taylor and Kotler (2018), who argued that data governance is the foundation upon which HR transformation is built. This could reflect that, in posthumanism.co.uk

some emerging markets (like Jordan), the infrastructure or regulatory environment for advanced data integration may not yet be fully developed, and the potential effects of these areas may not be seen directly to impact their business. Moreover, while a lot of international research deals with automation and AI in reshaping HR processes (for instance, Sundarapandiyan et al., 2024), the outcome of this research indicates a relatively equal impact by all four dimensions without domination of technology. It means that elements that pertain to people, such as operational culture and talent acquisition, still hold great value, particularly when they complement digital programs. Therefore, the findings add to existing theories and close a gap in the literature by providing the contextual lens of a sector where DM varies and where forces impacting HT capability-building are dualistic, where cultural adaptability impinges on structural capability.

## Conclusion

The most critical findings reveal that Talent Acquisition and Learning and Development are the most influential drivers of HR digitalization. These results underscore the importance of aligning digital tools with strategic talent development and recruitment practices. Meanwhile, Data-Driven Decision Making and Cybersecurity, though vital, showed slightly less influence, suggesting the need for deeper integration and infrastructural support to maximize their impact. Digital HR Transformation significantly improves Organizational Effectiveness ( $\beta = 0.778$ , p < 0.001). Talent Acquisition and Learning and Development are the most influential dimensions driving digital transformation. Data-Driven Decision Making and Cybersecurity show strong reliability but moderate impact on transformation outcomes. The model demonstrated strong validity and explanatory power ( $R^2$  for Organizational Effectiveness = 0.718). Thus, this paper contributes to the growing body of knowledge on digital transformation by empirically validating the multidimensional impact of Digital HR practices on organizational performance. It provides valuable insights for both scholars and practitioners, particularly in developing economies, where digital transformation strategies must account for organizational culture, infrastructure, and employee capabilities. By streamlining operational efficiency, supporting data-informed decision-making, enabling greater innovation capacity, and maximizing talent management practices, digital HR is an avenue for organizational effectiveness. Effective implementation must overcome integration challenges, skill gaps, and ethical concerns, and initiatives must be aligned with business objectives. This study examined the effect of Digital HR Transformation on Organizational Effectiveness in the telecommunications sector in Jordan. By utilizing data from 284 respondents along with advanced analytical methodologies (SPSS and Smart-PLS), the study demonstrated that Digital HR Transformation by its fundamental dimensions of Talent Acquisition and Management, Learning and Development, Data-Driven Decision Making, and Cybersecurity and Data Privacy, exerts a strong, positive, and statistically significant impact on Organizational Effectiveness.

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