

The Nexus of Digital Transformation, AI, and Business Intelligence in Shaping Human Resource Management: A Comprehensive Literature Review

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Abstract: This literature review explores the intricate relationships between digital transformation, artificial intelligence (AI), business intelligence (BI), and human resource management (HRM) practices, particularly within the context of emerging economies. By synthesizing a wide array of recent scholarly works, we identify and analyze key themes such as talent retention, knowledge sharing, decision-making, organizational learning, sustainability, employee commitment, and innovation. The review elucidates how the strategic integration of digital technologies, AI applications, and BI capabilities within HRM can foster dynamic capabilities and enhance employee outcomes. We move beyond simple descriptions of technology adoption to provide a deep, critical analysis of the theoretical underpinnings and practical implications of this digital nexus. The paper identifies critical research gaps and outlines future research directions, offering a robust foundation for academics and practitioners seeking to understand and leverage the transformative power of digital technologies in the realm of human capital management.

Keywords: Digital Transformation, Artificial Intelligence, Business Intelligence, Human Resource Management, Literature Review.

1. INTRODUCTION

The contemporary business landscape is characterized by rapid technological advancements, increasing global competition, and continuous pressure on organizations to adapt to changing market conditions [1]. These developments have made digital transformation an essential strategic priority for organizations seeking to remain competitive, efficient, and sustainable. Digital transformation is no longer limited to the adoption of new technologies; rather, it involves a fundamental rethinking of organizational processes, structures, capabilities, and decision-making systems [2]. In this context, organizations are required to integrate digital tools into their core operations in order to improve responsiveness, innovation, and long-term performance [3]. HRM has become one of the most important areas affected by this transformation, as people remain central to organizational success. The emergence of AI and BI tools has revolutionized various organizational functions, with HRM representing a particularly important field for innovation, automation, and strategic realignment [4]. Accordingly, the integration of digital transformation, AI, and BI within HRM practices has become a critical issue for both researchers and practitioners, especially as organizations seek to align human capital strategies with broader organizational objectives [5].

The strategic use of AI and BI in HRM enables organizations to move beyond traditional administrative practices toward more analytical, predictive, and evidence-based approaches [6]. AI technologies can support recruitment, employee selection, performance evaluation, training, workforce planning, and employee engagement by automating routine tasks and identifying patterns in large volumes of workforce data. BI tools, meanwhile, provide HR managers with dashboards, reports, indicators, and analytical insights that improve the quality and speed of decision-

making [7]. Together, these technologies enhance the ability of HR departments to understand employee behavior, forecast talent needs, identify performance gaps, and design more effective human capital policies. In emerging economies, this technological shift is particularly significant because organizations often operate in environments marked by rapid growth, evolving regulatory frameworks, diverse talent pools, and increasing demand for skilled employees [5]. Therefore, the ability to leverage digital HRM, AI-driven insights, and BI capabilities becomes essential for improving talent management, strengthening organizational learning, and fostering a culture of innovation [8].

The interplay between digital HRM, AI, and BI has a significant influence on several key organizational outcomes. One of the most important outcomes is talent retention, as organizations increasingly need to retain skilled employees in competitive and uncertain labor markets. AI and BI can help HR managers identify the causes of employee turnover, monitor satisfaction levels, and develop more targeted retention strategies [9], [10]. In addition, these technologies support knowledge sharing by creating digital platforms that facilitate communication, collaboration, and the exchange of expertise among employees [11], [12], [13]. They also improve decision-making processes by providing accurate, timely, and data-driven information that helps managers make more effective strategic and operational choices [14], [15]. Furthermore, digital HRM contributes to organizational learning by supporting continuous training, skill development, and knowledge acquisition, which are necessary for adapting to technological and environmental change [16]. At the same time, employee commitment can be strengthened when digital HRM systems improve transparency, fairness, communication, and opportunities for professional development [17], [18].

Despite the growing body of literature on digital transformation, AI, BI, and HRM, there remains a need for a

unified review that brings these related areas together into a coherent framework. Much of the existing research examines these themes separately, while fewer studies provide an integrated understanding of how they collectively shape HRM practices and organizational outcomes, particularly in emerging economies [19]. Recent developments in Generative AI (GenAI) further increase the importance of this discussion, as GenAI is rapidly transforming HRM by enhancing efficiency, supporting communication, improving recruitment processes, assisting in training design, and strengthening decision-making capabilities [20]. However, the adoption of these technologies also creates practical and ethical challenges, including concerns related to data privacy, algorithmic bias, employee trust, digital readiness, and responsible technology governance [21]. Therefore, this review aims to bridge this gap by providing a comprehensive examination of the strategic integration of digital transformation, AI, and BI within HRM practices. It seeks to identify theoretical commonalities, synthesize existing research, and outline the practical challenges and opportunities associated with this digital evolution in HRM, with particular attention to the dynamic contexts of emerging economies [22].

2. THEORETICAL UNDERPINNINGS OF DIGITAL HRM

2.1. Resource-Based View (RBV) and Human Capital

The Resource-Based View (RBV) posits that a firm's competitive advantage stems from its unique and valuable resources and capabilities [5]. In the context of digital HRM, digital technologies, AI applications, and BI systems, when integrated effectively, can be considered valuable, rare, inimitable, and non-substitutable (VRIN) resources [23]. These resources allow organizations to improve HR efficiency, strengthen data-driven decision-making, and develop more responsive talent management practices. More importantly, human capital enhanced by digital tools becomes a strategic capability that contributes to superior organizational performance and long-term competitiveness [24], [25]. The literature emphasizes that it is not the technology itself that creates sustainable advantage, but the effective integration of technology with human talent, organizational knowledge, and managerial capabilities [26]. Therefore, organizations that successfully combine digital systems with skilled employees are more likely to build capabilities that competitors cannot easily imitate [27].

2.2. Dynamic Capabilities Theory

Dynamic Capabilities Theory extends the Resource-Based View (RBV) by emphasizing a firm's ability to integrate, build, and reconfigure internal and external competences in response to rapidly changing environments [5]. While RBV focuses on the strategic value of organizational resources, Dynamic Capabilities Theory explains how firms renew and adapt these resources over time. In the context of digital HRM, digital transformation, AI, and BI enable dynamic capabilities by supporting

organizational learning, adaptive decision-making, and strategic agility [16], [5], [24], [28]. These technologies allow organizations to sense changes in the labor market, identify emerging skill requirements, and respond through more flexible HR strategies [29]. Recent evidence also highlights the relationship between BI capability, organizational agility, and performance in emerging market banks, confirming the importance of data-driven capabilities in dynamic environments [23]. This theory is particularly relevant in emerging economies, where market conditions are often volatile, regulatory systems are evolving, and organizations must adapt quickly to technological, economic, and workforce changes [30].

2.3. Social Exchange Theory (SET)

Social Exchange Theory (SET) suggests that social behavior is shaped by an exchange process in which individuals evaluate the potential benefits and risks of their relationships. In the workplace, this theory explains how employees respond to the treatment, support, and opportunities provided by their organizations [31]. When employees perceive fair treatment, supportive leadership, transparent communication, and meaningful development opportunities, they are more likely to develop positive attitudes toward the organization. Digital HRM can support this exchange by improving access to HR services, enhancing communication, providing personalized training, and creating more transparent systems for performance management and career development [32]. These practices can foster positive employee outcomes such as commitment, job satisfaction, trust, and organizational citizenship behavior [17], [33], [34]. Therefore, when organizations invest in digital HRM tools that enhance employee well-being and professional growth, employees are likely to reciprocate with increased commitment, stronger performance, and greater willingness to contribute to organizational success [35].

3. CORE THEMES IN THE LITERATURE

3.1. Digital Transformation and Strategic Realignment

Digital transformation involves the integration of digital technology into all areas of a business, fundamentally changing how organizations operate, make decisions, and deliver value [5]. This transformation is not merely about adopting new technologies; rather, it requires a broader cultural and strategic shift in which organizations continually challenge traditional practices, experiment with new approaches, and adapt to changing market conditions [36]. Through digital transformation, firms can improve operational efficiency, enhance communication, support innovation, and strengthen their ability to respond to external pressures. In emerging economies, digital transformation is often viewed as a pathway for organizations to leapfrog traditional developmental stages by adopting advanced technologies that accelerate growth and competitiveness. It also enables firms to build dynamic capabilities that support

learning, flexibility, and strategic renewal [5]. Recent studies confirm that digital transformation fundamentally reshapes business models across emerging economies, although empirical evidence remains an area for further development [37].

3.2. Artificial Intelligence (AI) and Enhanced Decision-Making

AI applications are increasingly pervasive across organizational contexts, offering unprecedented capabilities for data processing, pattern recognition, predictive analytics, and intelligent automation [38], [14]. In modern organizations, AI enhances decision-making processes by extracting meaningful insights from vast datasets, reducing uncertainty, automating repetitive tasks, and supporting complex problem-solving [14]. These capabilities allow managers to make faster and more informed decisions while improving efficiency and strategic responsiveness [39]. AI-driven business intelligence can also be strategically applied in areas such as energy and ESG management, highlighting its broader role in supporting sustainability-oriented organizational practices [40]. In addition, evidence from the telecommunication sector demonstrates how AI applications contribute to customer value co-creation by improving service personalization, responsiveness, and customer interaction quality [38]. Recent investigations into AI adoption further highlight its transformative impact on traditional HRM practices, as AI supports recruitment, performance analysis, employee development, and workforce planning [41]. Moreover, AI can help organizations achieve strategic intent through cardinal mechanisms that align technological capabilities with organizational goals and long-term performance outcomes [42].

3.3. Business Intelligence (BI) as a Catalyst for HR Transformation

Business Intelligence (BI) involves the strategies, systems, and technologies used by enterprises to collect, process, analyze, and interpret business information. BI provides historical, current, and predictive views of business operations, enabling managers to make more accurate and data-driven decisions [11], [4], [24]. Through dashboards, reports, analytics tools, and performance indicators, BI helps organizations transform raw data into meaningful insights that support planning, monitoring, and strategic evaluation [43]. The strategic deployment of BI can significantly shape service innovation, with knowledge sharing acting as a mediator and organizational culture serving as a moderator in this relationship [11]. In HRM, BI serves as a catalyst for HR transformation by optimizing HR practices through data-driven insights related to recruitment, employee performance, training, engagement, and retention [4]. Moreover, BI capabilities are linked to firm performance and agility, particularly in the high-tech sector, where knowledge-oriented leadership plays a crucial role in maximizing the value of information and analytics [28]. Recent evidence from Jordan also shows the positive impact of BI capabilities on the

competitive performance of supermarkets, confirming the importance of BI for improving organizational responsiveness and market competitiveness [44].

3.4. Digital HRM Practices and Employee Outcomes

Digital HRM encompasses the use of digital technologies to enhance and transform HR processes, ranging from recruitment and selection to performance management, employee development, and workforce planning [45], [4], [34]. By integrating digital platforms, HR analytics, AI-supported tools, and automated systems, organizations can improve the efficiency, accuracy, and responsiveness of HR practices. Digital HRM, particularly through HR analytics, catalyzes bank competitiveness by enabling data-driven decision-making, improving workforce insights, and fostering organizational agility [24]. It is also instrumental in unlocking innovation, especially when combined with employee development initiatives and transformational leadership that encourages learning, creativity, and adaptation [45]. New research further suggests that AI-driven HRM digitization operates through specific mechanisms that influence important employee and organizational outcomes, including operational efficiency, job satisfaction, employee engagement, and improved service quality [46]. Therefore, digital HRM should be viewed as a strategic enabler that connects technology, human capital, and organizational performance.

3.5. Talent Management and Retention

Talent retention is a critical concern for contemporary organizations, and digital tools offer new avenues for addressing this challenge [9], [10]. In competitive labor markets, organizations must not only attract skilled employees but also create conditions that encourage them to remain committed over time. Digital HRM systems can support retention by helping managers monitor employee satisfaction, identify turnover risks, analyze performance trends, and design more personalized development opportunities. Effective talent management, career development, fair reward systems, and a supportive organizational culture are crucial for enhancing employee retention and strengthening long-term organizational stability [10]. Furthermore, workplace discrimination laws and legal risk management play a significant role in talent retention within multinational corporations (MNCs), as fair and legally compliant HR practices can reduce employee dissatisfaction and strengthen trust in the organization [9]. Therefore, talent retention should be viewed as both a strategic HR priority and a key outcome of effective digital HRM practices [47].

3.6. Knowledge Sharing and Organizational Learning

Knowledge sharing is vital for organizational learning, innovation, and long-term competitiveness [11], [25], [12], [13]. In modern organizations, the ability to create, exchange, and apply knowledge enables employees to solve problems more effectively, develop new ideas, and respond to changing business conditions [48]. Digital platforms and BI systems

facilitate the dissemination and utilization of knowledge within organizations by improving access to information, supporting collaboration, and enabling employees to transform data into practical insights [11]. High-performance work systems (HPWS) can also foster employee intrapreneurial behavior, with knowledge sharing mediating this relationship and entrepreneurial leadership moderating it [13]. In addition, mindfulness can mitigate the negative effects of workplace ostracism on knowledge sharing by helping employees manage social stress and maintain constructive workplace interactions [12]. Therefore, knowledge sharing represents a central mechanism through which digital HRM, leadership, and organizational culture contribute to learning, innovation, and improved organizational performance [49].

3.7. Sustainability and Ethics in the Digital Age

Sustainability is increasingly integrated into organizational strategies, including HRM, as organizations seek to balance economic performance with environmental and social responsibility [50], [40], [51]. In this context, HRM sustainability initiatives play an important role in shaping employee awareness, responsible behavior, and commitment to sustainable organizational practices. HRM sustainability initiatives, environmental consciousness, and intention to use energy resources collectively influence environmental performance by encouraging employees and managers to adopt more responsible resource-use behaviors [51]. AI-driven BI also plays a significant role in strategic energy and ESG management by supporting data analysis, performance monitoring, and informed sustainability-related decision-making [40]. Moreover, cybersecurity awareness is crucial for driving digital technology adoption for sustainable development in the engineering industry, as secure digital systems increase trust and reduce risks associated with technological transformation [52]. Strategic HRM scholars are now exploring the implications of AI for inclusion and sustainability in the future of work, highlighting the need for responsible, ethical, and human-centered digital HRM practices [53]. Therefore, sustainability in the digital age requires organizations to align HRM, AI, BI, cybersecurity, and ethical governance with broader environmental and social objectives [54].

4. DISCUSSION:

The literature reviewed underscores a fundamental shift in HRM, where digital transformation, AI, and BI are no longer viewed as simple technological add-ons but as central components of organizational strategy and long-term survival [55]. These technologies have transformed HRM from a mainly administrative function into a strategic, data-driven, and value-creating function that supports competitiveness, innovation, and organizational agility [56]. The reviewed studies suggest that the successful integration of AI and BI within digital HRM enables organizations to improve decision-making, enhance talent management, support knowledge sharing, and strengthen employee outcomes [57].

This section synthesizes these findings to provide a deeper understanding of the synergistic effects of digital transformation, AI, and BI, while also highlighting the critical role of organizational context, especially in emerging economies where adaptability, leadership, culture, and digital readiness strongly influence the success of HR transformation [58].

4.1. The Synergistic Impact of AI and BI on HRM

The integration of AI and BI within HRM creates a powerful synergy that moves the function from a reactive and administrative role to a proactive, analytical, and strategic one. AI's ability to process vast amounts of data, identify patterns, automate routine tasks, and support predictive analysis complements BI's focus on providing historical, current, and predictive insights for better decision-making [14], [41], [11], [4]. Together, these technologies enable HR analytics, which catalyzes competitiveness by helping organizations transform workforce data into meaningful insights that support evidence-based decisions [24]. This synergy is particularly evident in talent management, where AI can assist in identifying high-potential candidates, analyzing employee performance, and predicting workforce needs, while BI can track career progression, employee engagement, and retention risks. As a result, organizations can develop more effective, personalized, and strategic talent management practices that enhance employee retention and organizational performance [10].

4.2. Digital HRM as a Driver of Dynamic Capabilities

The literature strongly supports the idea that digital HRM is a key enabler of dynamic capabilities, especially in emerging economies where organizations face rapid market shifts, technological change, and institutional uncertainty [5], [16]. By automating routine HR tasks and providing real-time workforce insights, digital HRM allows organizations to become more agile, responsive, and capable of adapting to changing market conditions. It also supports better workforce planning, faster decision-making, and more flexible talent management practices. Organizational learning capability acts as a crucial boundary condition, determining how effectively digital payoffs are realized and transformed into sustainable organizational outcomes [16]. This suggests that the success of digital HRM is not only about adopting advanced technologies but also about the organization's ability to learn, adapt, and continuously reconfigure its processes [59]. Therefore, digital HRM contributes to dynamic capabilities by helping firms sense environmental changes, seize emerging opportunities, and transform internal HR practices to support long-term competitiveness.

4.3. The Human Element: Leadership and Culture

A recurring theme in the literature is that technology alone is insufficient to achieve successful digital HRM transformation; leadership and organizational culture are critical moderators that shape how digital tools are adopted, used, and sustained [60]. Transformational leadership is

essential for the successful adoption of digital HRM because it encourages employees to accept change, develop new skills, and participate in innovation-oriented practices [45]. Similarly, knowledge-oriented leadership and a knowledge-centered culture are vital for maximizing the benefits of BI and AI, particularly in fostering knowledge sharing, collaboration, and innovative behavior [28], [61]. These findings suggest that digital technologies create value only when they are supported by leaders who promote trust, learning, openness, and employee involvement [62]. This highlights a potential tension: while technology can automate processes and streamline HR activities, it also requires a more human-centric approach to leadership to ensure that employees remain engaged, committed, and willing to contribute to organizational goals.

4.4. Challenges and Ethical Considerations

While the benefits of digital transformation, AI, and BI in HRM are significant, the literature also identifies substantial challenges that organizations must address to ensure responsible and effective implementation. Cybersecurity awareness and knowledge are critical for the adoption of digital technologies for sustainable development, as organizations increasingly depend on digital systems to store, process, and manage sensitive employee and organizational data [52]. Ethical considerations, such as data privacy, transparency, accountability, and the potential for bias in AI algorithms, are also emerging as critical areas of concern [63], [53]. If these issues are not properly managed, digital HRM systems may reduce employee trust and create perceptions of unfairness in decision-making. In emerging economies, these challenges are often compounded by uneven technological infrastructure, limited digital skills, and evolving regulatory frameworks [64]. Therefore, organizations must develop clear governance mechanisms, invest in cybersecurity awareness, and ensure that AI and BI applications are implemented in a fair, transparent, and human-centered manner.

4.5. The Emerging Economy Context: Leapfrogging and Resilience

The review highlights that emerging economies present a unique and important context for understanding the development of digital HRM. In these economies, organizations often operate in environments characterized by rapid market growth, institutional change, technological gaps, and increasing pressure to compete globally. The potential for “leapfrogging”—where organizations bypass traditional developmental stages by adopting cutting-edge technologies—is a significant opportunity, as digital transformation can allow firms to accelerate modernization and strengthen competitiveness [5]. However, realizing this opportunity requires a high level of organizational resilience, strategic planning, digital readiness, and the ability to manage change effectively. Organizations must not only adopt digital tools but also align them with human capital strategies, leadership practices, and organizational culture. The role of

Islamic work ethics in fostering commitment in certain emerging markets also provides a unique cultural dimension to the digital HRM nexus, suggesting that values, beliefs, and ethical orientations can influence how employees respond to digital transformation initiatives [17]. Therefore, emerging economies offer a rich context for examining how digital HRM, culture, and organizational resilience interact to support sustainable performance.

5. RESEARCH GAPS AND FUTURE DIRECTIONS

Despite the extensive literature, several gaps remain:

- **Longitudinal Studies:** Most existing research is cross-sectional. Longitudinal studies are needed to understand the long-term impact of digital HRM, AI, and BI on organizational performance and employee well-being.
- **Ethical AI in HRM:** More research is needed on how to develop and implement ethical AI in HRM, specifically addressing issues of bias, transparency, and accountability.
- **Comparative Studies:** Comparative studies across different emerging economies and between emerging and developed economies would provide deeper insights into contextual nuances.
- **Employee Perspective:** While much of the literature focuses on organizational outcomes, more research is needed on the employee experience of digital HRM, including its impact on job satisfaction, stress, and work-life balance.
- **Specific AI/BI Applications:** Research should delve deeper into specific types of AI (e.g., GenAI) and BI applications to identify which ones yield the most significant impact on various HR functions.

6. CONCLUSION

In conclusion, this literature review demonstrates that the strategic integration of digital transformation, AI, and BI has become a fundamental driver of modern HRM. The reviewed literature shows that digital transformation is no longer a supportive or optional organizational activity; rather, it has become a central mechanism through which organizations redesign HR practices, strengthen decision-making, and enhance overall performance. AI and BI tools provide HR departments with the ability to analyze workforce data, automate routine functions, predict talent-related challenges, and support more informed strategic decisions. As a result, HRM is increasingly shifting from a traditional administrative role toward a proactive, analytical, and value-creating function. The review also highlights that the impact of digital HRM extends across several important organizational outcomes, including talent retention, knowledge sharing, organizational learning, employee commitment, innovation, and sustainability. In emerging economies, these outcomes are especially significant because organizations operate in environments characterized by rapid growth, evolving regulations, diverse talent pools, and varying levels of digital readiness. The findings suggest that organizations that

successfully adopt AI, BI, and digital HRM practices are better positioned to improve agility, strengthen human capital capabilities, and respond effectively to market and technological changes. Therefore, digital transformation in HRM should be understood not only as a technological change but also as a strategic and cultural transformation.

However, the review also emphasizes that technology alone is not sufficient to achieve successful HR transformation. Leadership, organizational culture, employee readiness, knowledge-sharing practices, and ethical governance play essential roles in determining whether digital initiatives produce meaningful outcomes. Challenges related to data privacy, cybersecurity, algorithmic bias, employee trust, and uneven technological infrastructure remain critical concerns, particularly in emerging economy contexts. Addressing these challenges requires organizations to adopt responsible digital strategies that balance efficiency and innovation with fairness, transparency, and sustainability. Overall, this review contributes to the understanding of the digital HRM nexus by synthesizing the roles of digital transformation, AI, and BI in shaping contemporary HRM practices. It confirms that the effective integration of these technologies can enhance organizational performance and support long-term competitiveness, especially when aligned with strategic leadership and a supportive organizational culture. Future research should continue to examine this relationship through longitudinal, comparative, and employee-centered studies, with greater attention to ethical AI adoption, Generative AI applications, and the specific contextual realities of emerging economies.

REFERENCES

- [1] Abualrejal, H. M., Alqudah, A. Z., Ali, A. A. A., Saoula, O., & AlOrmaza, T. K. (2022). University parcel centre services quality and users' satisfaction in higher education institutions: A case of Universiti Utara Malaysia. In M. Al-Emran, M. A. Al-Sharafi, M. N. Al-Kabi, & K. Shaalan (Eds.), *Proceedings of International Conference on Emerging Technologies and Intelligent Systems: ICETIS 2021 (Lecture Notes in Networks and Systems, Vol. 322, pp. 885–895)*. Springer. https://doi.org/10.1007/978-3-030-85990-9_70
- [2] Alashqar, M. M., Abulehia, A. F. S., Atieh, A. A., Mahmoud, M. H., & Alzubi, M. M. S. (2025). Legal framework for regulating AI in smart cities: Privacy, surveillance, and ethics. In 2025 International Conference for Artificial Intelligence, Applications, Innovation and Ethics (AI2E) (pp. 1–6). IEEE. <https://doi.org/10.1109/AI2E64943.2025.10983107>
- [3] Al-Haddad, S., Sharabati, A.-A. A., Nasereddin, A. Y., Alyah, M., Mehryar, O., & Ali, A. A. A. (2024). The impact of Instagram content marketing on cognitive engagement, affection, and behavior. *International Journal of Data and Network Science*, 8(4), 2685–2700. <https://doi.org/10.5267/j.ijdns.2024.4.010>
- [4] Tawalbeh, M., Alzghoul, A., & Alsheikh, G. A. A. (2025, January). Business intelligence as a catalyst for HR transformation: A study of BI implementation in HR practices. In *AIP Conference Proceedings (Vol. 3255, No. 1, p. 050007)*. AIP Publishing LLC.
- [5] Lehyeh, S. A., & Alzghoul, A. (2026). Digital transformation and supply chain competitiveness: Evidence of dynamic capabilities from an emerging economy. *Journal of Project Management*, 11(1), 63–74.
- [6] Ali, A. A. A., Abualrejal, H. M. E., Mohamed Udin, Z. B., Shtawi, H. O., & Alqudah, A. Z. (2021). The role of supply chain integration on project management success in Jordanian engineering companies. In M. Al-Emran, K. Shaalan, & A. E. Hassanien (Eds.), *Proceedings of International Conference on Emerging Technologies and Intelligent Systems (Lecture Notes in Networks and Systems, Vol. 299, pp. 646–657)*. Springer. https://doi.org/10.1007/978-3-030-82616-1_53
- [7] Ali, A. A. A., Fayad, A. A. S., Alomair, A., & Al Naim, A. S. (2024). The role of digital supply chain on inventory management effectiveness within engineering companies in Jordan. *Sustainability*, 16(18), Article 8031. <https://doi.org/10.3390/su16188031>
- [8] Ali, A. A. A., Sharabati, A.-A. A., Allahham, M., & Nasereddin, A. Y. (2024). The relationship between supply chain resilience and digital supply chain and the impact on sustainability: Supply chain dynamism as a moderator. *Sustainability*, 16(7), Article 3082. <https://doi.org/10.3390/su16073082>
- [9] Khaddam, A. A., Alzghoul, A., & Irtaimah, H. J. (2025). Workplace Discrimination Laws and Talent Retention in MNCs: Unpacking the Legal Risk Management Nexus. *International Review of Management and Marketing*, 15(6), 337.
- [10] Alzghoul, A., & Khaddam, A. (2024). Enhancing employee retention in banks: Analyzing the role of talent management, career development, and bank culture. *Banks and Bank Systems*, 19(4), 96.
- [11] Obeidat, A. M., Khaddam, A. A., Alzghoul, A., Al Afeshat, M. T. M., & Al Ghizzawi, M. (2026). How business intelligence shapes service innovation: Knowledge sharing as a mediator and culture as a moderator in the Jordanian context. *Economics*, 14(1).
- [12] Lehyeh, S. A., & Alzghoul, A. (2024). The interplay of mindfulness in mitigating the effects of workplace ostracism on knowledge sharing: Insights from Jordanian private hospitals. *Problems and Perspectives in Management*, 22(2), 61.
- [13] Khawaldeh, K., & Alzghoul, A. (2024). How knowledge sharing mediates the influence of high-performance

- work systems on employee entrepreneurial behavior: A moderation role of entrepreneurial leadership. *Uncertain Supply Chain Management*, 12(2), 1365-1378.
- [14] Alrawahna, A. S., Alhanatleh, H., Awad, H., Alzghoul, A., & Al Muala, I. (2025, December). The Role of Artificial Intelligence in Enhancing Decision-Making Processes. In 2025 International Conference on Decision Aid Sciences and Applications (DASA) (pp. 164-168). IEEE.
- [15] Alhanatleh, H., Alzghoul, A., & Alnajdawi, S. M. (2024, December). Role of Artificial Intelligence Applications on Engineering Decision Making: Mediation Effects of Value Co-Creation. In 2024 International Conference on Decision Aid Sciences and Applications (DASA) (pp. 1-5). IEEE.
- [16] Tarawneh, A., & Alzghoul, A. (2026). Unlocking Digital Payoffs in Pharmaceutical Supply Chains: Organizational Learning Capability as a Boundary Condition. *International Review of Management and Marketing*, 16(1), 430.
- [17] Hawwa, M. S., Alzghoul, A., & Jedi, M. A. (2026). Linking Individual and Organizational Islamic Work Ethics to Employee Commitment: The Mediating Role of Perceived Organizational Support in Islamic Banks. *International Review of Management and Marketing*, 16(3), 176.
- [18] Afaishat, T., Alzghoul, A., Alghizzawi, M., & AlFraihat, S. F. (2025). Driving Strategic Entrepreneurship Through Organizational Commitment: Evidence from the IT Industry with Leadership Support as a Moderator. *Administrative Sciences*, 15(9), 350.
- [19] Ali, A. A. A., Sharabati, A.-A. A., Alqurashi, D. R., Shkeer, A. S., & Allahham, M. (2024). The impact of artificial intelligence and supply chain collaboration on supply chain resilience: Mediating the effects of information sharing. *Uncertain Supply Chain Management*, 12(3), 1801-1812. <https://doi.org/10.5267/j.uscm.2024.3.002>
- [20] Jiang, Y. (2025). Leverage Generative AI for human resource management. *International Journal of Human Resource Management*.
- [21] Ali, A. A. A., Udin, Z. B. M., & Abualrejal, H. M. E. (2023). The impact of artificial intelligence and supply chain resilience on the companies supply chains performance: The moderating role of supply chain dynamism. In *Lecture Notes in Networks and Systems* (Vol. 550, pp. 17-28). Springer. https://doi.org/10.1007/978-3-031-16865-9_2
- [22] Ali, A. A. A., Udin, Z. M., & Abualrejal, H. M. E. (2023). The impact of humanitarian supply chain on non-government organizations performance moderated by organisation culture. *International Journal of Sustainable Development and Planning*, 18(3), 763-772. <https://doi.org/10.18280/ijstdp.180312>
- [23] Al-Maaitah, T. A., Hijazin, A. F., Ali, A., Al-Amarneh, A., Alshdaifat, S. M., & Al-Maaitah, D. A. (2026). Business intelligence capability, organizational agility, and bank performance: Evidence from an emerging country. *EDPACS*, 1-21. <https://doi.org/10.1080/07366981.2026.2624906>
- [24] Alzghoul, A. (2025). How HR analytics catalyzes bank competitiveness: Investigating the mediating role of data-driven decision-making and the moderating effect of organizational agility. *Banks and Bank Systems*, 20(2), 107.
- [25] Alzghoul, A., & Aboalghanam, K. M. (2025). Investigating the effect of knowledge management systems on university performance: The interplay of intellectual and human capital. *Knowledge and Performance Management*, 9(1), 93.
- [26] Alotaibi, E. K., Alafi, K. K., Shkeer, A. S., Ismaeel, B., Ali, A., & Khanfar, I. A. (2026). Assessing the impact of sustainable tourism practices on Petra and Wadi Rum. *Heritage and Sustainable Development*, 8(1), 499-512. <https://doi.org/10.37868/hsd.v8i1.1685>
- [27] Alqudah, A. Z., Alshar, M. M., Mahmoud, M. M. S., Al Sheyab, S. N., Radwan, S., & Ali, A. (2026). E-marketing and creativity as drivers of organizational performance in the packaging and food processing industry in Jordan: The mediating role of customer satisfaction. *PaperASIA*, 42(1b), 57-68. <https://doi.org/10.59953/paperasia.v42i1b.960>
- [28] Khawaldeh, K., & Alzghoul, A. (2024). Nexus of business intelligence capabilities, firm performance, firm agility, and knowledge-oriented leadership in the Jordanian high-tech sector. *Problems and Perspectives in Management*, 22(1), 115.
- [29] Alrifae, A. A. M., Mahmoud, M. H., Al Zumot, R., Ali, A., & AlZubi, M. M. (2026). The impact of electronic human resource management on organizational performance in the Jordanian telecommunications sector with employee engagement as a mediating variable. *Discover Sustainability*, 7, Article 273. <https://doi.org/10.1007/s43621-026-02644-9>
- [30] Alrifai, K., Obaid, T., Ali, A. A. A., Abulehia, A. F. S., Abualrejal, H. M. E., & Nassoura, M. B. A. R. (2023). The role of artificial intelligence in project performance in construction companies in Palestine. In M. Al-Emran, M. A. Al-Sharafi, & K. Shaalan (Eds.), *International Conference on Information Systems and Intelligent Applications: ICISIA 2022* (Lecture Notes in Networks and Systems, Vol. 550, pp. 71-82). Springer. https://doi.org/10.1007/978-3-031-16865-9_6
- [31] Alzubi, M. M. S., Mohammad Alrifae, A. A., Mahmoud, M. H., & Atieh, A. A. (2025). Factors influencing

- business intelligence adoption by Jordanian private universities. *PaperASIA*, 41(1b), 148–167. <https://doi.org/10.59953/paperasia.v41i1b.378>
- [32] Alzuod, M. A., Alshdaifat, S. M., Atieh, A. A., Al-Amarneh, A., Khrais, L. T., & Hijazin, A. F. (2025). The moderating role of sustainable practices in the relationship between organizational capabilities and technology adoption. *Heritage and Sustainable Development*, 7(1), 385–400. <https://doi.org/10.37868/hsd.v7i1.1126>
- [33] Alzghoul, A., Alsheikh, G. A. A., Al Khawaldeh, K., & Abuhussien, A. (2021). OCB Is Unlocked by Enabling the HPWS and Core Competencies: The Moderating Effects of Work and Family Stress in Jordanian Public Hospitals. *SSRN* 4256177.
- [34] Alzghoul, A., Moh'd Abu Bakir, S., & Alsheikh, G. A. A. (2023). The interplay among human resource information systems, organizational citizenship behavior, and organizational success in Jordanian banks. *Problems and Perspectives in Management*, 21(1), 493.
- [35] Atieh, A. A. (2025a). Enhancing humanitarian supply chain resilience through AI: The moderating role of artificial intelligence in achieving Sustainable Development Goals (SDGs) in Jordan. *International Journal of Sustainable Development and Planning*, 20(5), 2225–2234. <https://doi.org/10.18280/ijstdp.200537>
- [36] Atieh, A. A. (2025b). The role of strategic resilience and data-driven culture in enhancing supply chain risk management: A resource orchestration perspective. *PaperASIA*, 41(3b), 258–268. <https://doi.org/10.59953/paperasia.v41i3b.509>
- [37] Atieh, A. A., & Abushaega, M. M. (2025). Achieving supply chain sustainability through green innovation: A dynamic capabilities-based approach in the logistics sector. *Sustainability*, 17(13), Article 5716. <https://doi.org/10.3390/su17135716>
- [38] Alhanatleh, H., Alzghoul, A., & Abualganam, K. (2025, December). Impact of Artificial Intelligence Applications on Customers' Value Co-Creation: Telecommunication Sector. In *2025 International Conference on Decision Aid Sciences and Applications (DASA)* (pp. 1161-1166). IEEE.
- [39] Atieh, A. A., Abu Hussein, A., Al-Jaghoub, S., Alheet, A. F., & Attiany, M. (2025). The impact of digital technology, automation, and data integration on supply chain performance: Exploring the moderating role of digital transformation. *Logistics*, 9(1), Article 11. <https://doi.org/10.3390/logistics9010011>
- [40] Khaddam, A. A., & Alzghoul, A. (2025). Artificial intelligence-driven business intelligence for strategic energy and ESG management: a systematic review of economic and policy implications. *International Journal of Energy Economics and Policy*, 15(4), 635–650.
- [41] Ncube, T. R. (2025). The impact of artificial intelligence on human resource management practices. *South African Journal of Human Resource Management*.
- [42] Alzeiby, E. A. (2025). AI adoption in enterprises for enhanced strategic human resource management. *Journal of Enterprise Information Management*, 38(5), 1441-1460.
- [43] Atieh, A. A., Hijazin, A. F., Alshdaifat, S. M., et al. (2026). Digital transformation and technological capabilities in achieving sustainable development goals in emerging countries. *Discover Sustainability*, 7, Article 383. <https://doi.org/10.1007/s43621-026-02739-3>
- [44] Jahmani et al. (2025). The positive impact of business intelligence capabilities on the competitive performance of supermarkets in Jordan. *MDPI Applied Sciences*.
- [45] Al-Shammari, S., & Alzghoul, A. (2026). Unlocking Innovation through Digital HRM: How Employee Development and Transformational Leadership Shape Adoption Success. *International Review of Management and Marketing*, 16(3), 205.
- [46] Ali, A. (2026). AI-driven HRM digitization in effect: Mechanisms and outcomes. *ScienceDirect*.
- [47] Eitah, R. A., Ali, A., & Al-Fawaeer, M. A. (2025). Leveraging digital HRM for sustainable workforce transformation: The role of green employee engagement in achieving ESG goals. *Journal of Logistics, Informatics and Service Science*, 12(11), 129–145.
- [48] Hijazin, A. F., Alshdaifat, S. M., Atieh, A. A., & Hasan, E. F. (2025). From responsibility to returns: How ESG and CSR drive investor decision making in the age of sustainability. *Journal of Risk and Financial Management*, 18(8), Article 406. <https://doi.org/10.3390/jrfm18080406>
- [49] Mahmoud, M. H., Ali, A. A., Alrifae, A. A., Eitah, R. A., & AlZubi, M. M. (2025). The impact of digital HRM system and digital transformation on HR efficiency with organizational agility as a moderator. *Discover Sustainability*, 6, Article 1038. <https://doi.org/10.1007/s43621-025-01713-9>
- [50] Al-Jaber, A., Alzghoul, A., Alghizzawi, M., AlFraihat, S. F., Elhawi, R., & Banihani, T. (2025). Integrating HRM Strategies to Achieve Sustainable Development Goals: The Mediating Roles of Employee Well-Being and Corporate Governance. *Administrative Sciences*, 15(12), 474.
- [51] Alzghoul, A., Khaddam, A. A., & Al-Kasasbeh, O. (2024). The interplay among HR sustainability initiatives, intention to use of energy resources,

- environmental consciousness, and environmental performance. *International Journal of Energy Economics and Policy*, 14(4), 624-630.
- [52] Alzghoul, A., Alhanatleh, H., Alnajdawi, S., Alghizzawi, M., & mohammad Al Htibat, A. (2024, December). Actual Role of Cybersecurity Awareness and Knowledge to Drive Digital Technology Adoption for Enhance Sustainable Development: Engineering Industry Setting. In 2024 International Conference on Decision Aid Sciences and Applications (DASA) (pp. 1-5). IEEE.
- [53] Ki, Y. P., & Sakaki, R. (2026). Strategic human resource management in the future of work: A systematic review of digital transformation, inclusion, and sustainability. *Journal of Business Management and Accounting*.
- [54] Obaid, T., Abu-Naser, S. S., Abumandil, M. S. S., Mahmoud, A. Y., & Ali, A. A. A. (2023). Age and gender classification from retinal fundus using deep learning. In A. E. Hassanien, V. Snášel, A. M. Madureira, & F. Kacprzyk (Eds.), *Advances on intelligent computing and data science: Proceedings of ICACIn 2022* (pp. 171-180). Springer. https://doi.org/10.1007/978-3-031-36258-3_15
- [55] Obaid, T., Eneizan, B., Abumandil, M. S. S., Mahmoud, A. Y., Abu-Naser, S. S., & Ali, A. A. A. (2023). Factors affecting students' adoption of e-learning systems during COVID-19 pandemic: A structural equation modeling approach. In M. Al-Emran, M. A. Al-Sharafi, & K. Shaalan (Eds.), *International Conference on Information Systems and Intelligent Applications: ICISIA 2022 (Lecture Notes in Networks and Systems, Vol. 550, pp. 227-242)*. Springer. https://doi.org/10.1007/978-3-031-16865-9_19
- [56] Obaid, T., Eneizan, B., Abu-Naser, S. S., Alsheikh, G., Ali, A. A. A., Abualrejal, H. M. E., & Gazem, N. A. (2022). Factors contributing to an effective e-government adoption in Palestine. In F. Saeed, F. Mohammed, & F. Ghaleb (Eds.), *Advances on intelligent informatics and computing: Health informatics, intelligent systems, data science and smart computing (Lecture Notes on Data Engineering and Communications Technologies, Vol. 127, pp. 663-676)*. Springer. https://doi.org/10.1007/978-3-030-98741-1_55
- [57] Sharabati, A.-A. A., Ali, A. A. A., Allahham, M. I., Hussein, A. A., Alheet, A. F., & Mohammad, A. S. (2024). The impact of digital marketing on the performance of SMEs: An analytical study in light of modern digital transformations. *Sustainability*, 16(19), Article 8667. <https://doi.org/10.3390/su16198667>
- [58] Sharabati, A.-A. A., Al-Haddad, S., Ayyed, R., Albarki, K., Abo-Rome, S., & Ali, A. A. A. (2025). The impact of ChatGPT service on students' performance: Moderated by training. *International Journal of Data and Network Science*, 9(3), 513-524. <https://doi.org/10.5267/j.ijdns.2024.8.014>
- [59] Sharabati, A.-A. A., Awawdeh, H. Z., Sabra, S., Shehadeh, H. K., Allahham, M., & Ali, A. (2024). The role of artificial intelligence on digital supply chain in industrial companies mediating effect of operational efficiency. *Uncertain Supply Chain Management*, 12(3), 1867-1878. <https://doi.org/10.5267/j.uscm.2024.2.016>
- [60] Shkeer, A. S., Sharabati, A.-A. A., Samarah, T., Alqurneh, M. I. M., & Ali, A. A. A. (2024). The influence of social media content marketing on consumer engagement: A mediating of the role of consumer cognition. *International Journal of Data and Network Science*, 8(4), 2423-2434. <https://doi.org/10.5267/j.ijdns.2024.5.015>
- [61] Alzghoul, A., Khaddam, A. A., Alshaar, Q., & Irtaimah, H. J. (2024). Impact of knowledge-oriented leadership on innovative behavior, and employee satisfaction: The mediating role of knowledge-centered culture for sustainable workplace. *Business Strategy & Development*, 7(1), e304.
- [62] Yaseen, H., Mohammad, A. S., Ashal, N., Abusaimah, H., Ali, A., & Sharabati, A.-A. A. (2025). The impact of adaptive learning technologies, personalized feedback, and interactive AI tools on student engagement: The moderating role of digital literacy. *Sustainability*, 17(3), Article 1133. <https://doi.org/10.3390/su17031133>
- [63] Abu-Dabaseh, F., Alghizzawi, M., Alkhlaifat, B. I., Ezmigna, A. A. R., Alzghoul, A., AlSokkar, A. A., & Al-Gasawneh, J. (2024, February). Enhancing privacy and security in decentralized social systems: Blockchain-based approach. In 2024 2nd international conference on cyber resilience (ICCR) (pp. 1-6). IEEE.
- [64] Kumar, A. D., & Alghazali, T. A. H. (2025). The role of optimization algorithms in enhancing AI-powered business intelligence systems. *International Journal of Multidisciplinary Research*.