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Exploring the Impact of Digital HRM on Organizational Resilience in Emerging Markets

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Abstract

In light of the significant challenges and disruptions that organizations frequently experience—such as market instability, technological progress, and regulatory shifts—fostering strong organizational resilience and embracing digital business transformation have emerged as critical priorities. This study examines whether digital human resource management (HRM) has a significant effect on organizational resilience in an emerging economy. To examine data gathered from HRM professionals working in the business sector of Bosnia and Herzegovina, this study employed multiple regression analysis. This method enabled an in-depth investigation of relationships and effects within this particular regional context. The results indicate that digital HRM plays a significant role in strengthening organizational resilience, positively influencing its three primary dimensions: the ability to anticipate, the capacity to cope, and the capability to adapt. This study contributes to the existing body of knowledge by offering practical insights into digital HRM and organizational resilience, empirically demonstrating how digital HRM reinforces organizational capacities to anticipate potential disruptions, respond efficiently to crises, and adjust to evolving conditions. These capabilities enable organizations to sustain stability and maintain continuous operations during unforeseen events, thereby supporting long-term sustainability and competitive advantage. The findings provide actionable digital HRM strategies for improving organizational resilience, offering guidance to HR practitioners on leveraging digital tools to enhance employee adaptability, facilitate effective crisis communication, and increase organizational flexibility and preparedness for future disruptions.

Keywords: Digital HRM, Human resource management, Artificial intelligence, AI, Organizational resilience

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Introduction

In the contemporary business landscape, organizations operate under considerable pressure in dynamic environments marked by continuous, unpredictable change. Firms frequently encounter intense competition, internal constraints, challenges involving key external stakeholders, as well as broader economic difficulties, unfavorable political developments, social and environmental demands, and major global crises such as COVID-19 [1]. These factors particularly disrupt business operations in the manufacturing sector, where firms engage with numerous stakeholders, depend heavily on product performance and sales growth, and face substantial environmental risks [2]. Consequently, organizations must develop resilience to effectively anticipate, avoid, and manage risks, ultimately overcoming them [3]. Organizational resilience refers to a firm's capacity to



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withstand stress, respond effectively, maintain stability, and even thrive in the face of internal and external shocks or disruptions [4].

Digitalization has proven to be a powerful enabler for organizations in navigating crises and minimizing further negative consequences, as clearly demonstrated during the COVID-19 pandemic and its aftermath [5]. The rapid evolution of technology has accelerated the broader societal shift toward digital systems, fundamentally reshaping HR functions, redefining how workforces are managed, and transforming recruitment practices across all organizational levels. In this digital landscape, both organizations and employees are compelled to respond quickly to continuous change, integrate new technologies, reconsider traditional ways of working, invest in lifelong learning, and continuously develop digital capabilities to remain competitive and relevant in an increasingly technology-oriented environment. A 2024 report by Leoforce indicates that 81% of surveyed organizations in North America plan to invest in AI-based solutions to enhance and streamline recruitment processes [6]. Furthermore, according to [7], HRM ranks second in terms of digital adoption, with a large proportion of its data stored digitally, immediately following the finance function across diverse industries. While the digitalization of HRM offers substantial advantages—such as long-term cost efficiency, improved employee experiences, enhanced operational effectiveness, greater focus on essential [nonroutine] activities and increased profitability—it also presents notable challenges, including distrust in AI technologies, limited technical expertise among HR professionals, concerns related to data privacy, exposure to cyber threats and risks of data breaches [8].

Regarding earlier studies, only a limited number have explored this domain, and one study highlighted the significant effect of E-HRM on organizational flexibility [9]. Organizational flexibility is typically understood as the ability to respond promptly to environmental changes [10], yet it represents just one element of the broader construct of organizational resilience. Other research has overlooked the digital or technological dimension within HRM and instead demonstrated that strategic HRM contributes to strengthening organizational resilience [11]. In light of these findings, organizations must develop and enhance human resource information systems that align with the requirements of resilience. However, a clear gap persists in the literature regarding the role of digital HRM in fostering organizational resilience, underscoring the need for further empirical investigation. This study seeks to advance theoretical understanding while highlighting practical implications at the intersection of digital HRM and organizational resilience, offering robust empirical evidence from Bosnia and Herzegovina, an emerging economy. The level of digital adoption in Bosnia and Herzegovina, like many emerging markets, reflects a transitional stage in which organizations are increasingly—especially in recent years—integrating digital technologies to improve business operations, including HR practices. In this context, digital HRM is especially important, as it helps address key challenges faced by firms in emerging economies, including resource constraints, skill shortages, and the need for greater efficiency. The conceptual foundation of this research draws on dynamic capabilities theory and the resource-based view (RBV). The RBV emphasizes the strategic use of resources to build critical capabilities through process improvements, including data analytics [12]. At the same time, dynamic capabilities theory highlights the organization's ability to reconfigure and adapt internal resources—such as human capital, technology, and operational systems—in response to evolving market conditions and environmental changes.

Accordingly, the subsequent section provides a literature review focusing on digital HRM practices, organizational resilience, and their relationship. This is followed by the development of the research framework, the formulation of the hypothesis, and a detailed explanation of the methodology and results. The next section presents a comprehensive discussion of the key findings and main conclusions. Finally, directions for future research are proposed.

Theoretical background

Digital human resource management practices

The advancement of digital technologies has fundamentally transformed how HR manages information and data, shifting traditional HR roles toward more proactive, analytics-driven functions. In particular, the integration of digital tools has significantly reshaped HRM activities [13], including recruitment, performance evaluation, and employee training and development, thereby improving the quality of services delivered to stakeholders through greater efficiency, accuracy, and engagement. [14] defines digital HRM transformation as the process by which HR functions evolve into digitally enabled systems that support automated, data-driven workflows. Through digital transformation, HRM processes have become more efficient and faster, particularly by automating routine administrative tasks, enabling HR professionals to devote more time to strategic, value-adding initiatives and ultimately fostering a more agile and innovative HR function. Moreover, digital HRM contributes to more precise decision-making [15], improved employee performance outcomes [16], and stronger organizational financial performance [17].

In principle, all conventional HRM functions can be digitized, including recruitment, onboarding, job design, employee engagement, performance management, appraisal and compensation systems, training and development, and talent management [8]. This study specifically examines four key HRM practices: “digital recruitment/selection process, digital onboarding, digital training and development, and digital performance management in HR.”

Digital recruitment and selection

Within HRM, employee recruitment and selection are vital functions increasingly influenced by advancements in digital technologies, including AI-enabled screening tools, advanced online recruitment systems, and data analytics techniques to improve hiring efficiency. [18] demonstrated that the adoption of online recruitment platforms alongside AI-based algorithms has fundamentally transformed these processes, improving both efficiency and precision. For example, the Applicant Tracking System (ATS) consolidates multiple functions into a single platform, including managing applicant data, automating job advertisements, facilitating communication with candidates via email and messaging, coordinating interview schedules, gathering interview feedback, generating reports on vacancy fulfillment, and compiling comprehensive recruitment analytics. In general, digital recruitment platforms provide organizations with access to a broader candidate base, thereby accelerating and improving the selection process. These systems enable organizations to reach potential candidates who may not have been identified through traditional methods, promoting greater diversity and equity in talent acquisition while enhancing hiring outcomes. Furthermore, algorithmic systems can examine patterns from previous recruitment cycles, enabling a progressively more tailored and optimized selection process [19]. In addition, an in-depth evaluation of applicant behavior and employee satisfaction levels can yield valuable insights to inform and strengthen future recruitment strategies [20].

Digital onboarding

Broadly defined, digital onboarding is the transformation of conventional onboarding practices through the integration of digital technologies to assist new employees in adjusting to and integrating into the organization [21]. The growing reliance on digital onboarding is considered to have significant implications for individuals entering new positions or transitioning across roles [22]. Onboarding is an HR practice that introduces new hires to their responsibilities while familiarizing them with organizational values, culture, procedures, and strategic goals [23]. The objective of digital onboarding is to create a virtual environment that allows employees to quickly integrate into the organization and contribute effectively to its overall objectives. Moreover, the use of digital technologies in onboarding supports the development of diverse dynamic capabilities that are particularly valuable in managing complex and uncertain situations [24], including disruptions such as the COVID-19 pandemic and economic downturns. For example, digital onboarding during the COVID-19 crisis has redefined organizational functioning by continuously enhancing resources and employee performance through organizational learning, particularly in how employers and employees interact and respond to one another [22]. Similarly, the rapid expansion of digital onboarding—driven by technological progress and social distancing measures such as remote and hybrid work arrangements—indicates that it has become one of the most viable solutions for sustaining organizational operations and ensuring employee productivity.

Digital training and development

An essential component of digital training and development involves using online tools and platforms—such as flexible, customizable e-learning systems, microlearning formats, virtual classrooms, AI-supported learning assistants, mobile-based training, and interactive webinars—to facilitate employee learning and skill development. Consequently, e-learning environments have significantly transformed how employees participate in training, allowing them to access content remotely and learn at their own pace and convenience [25]. This approach enhances employee engagement and motivation while promoting flexibility, accessibility, and independence in the learning process, enabling individuals to personalize their learning experiences according to their specific needs and preferences. In addition to tracking daily progress, an automated instructional system equipped with visual monitoring capabilities can engage with a variety of simulated learning scenarios of differing complexity and accurately assess the level of attention employees devote to each task [8]. Webinars, virtual workshops, and online classrooms are effective tools for delivering interactive training, as digital technologies enable organizations to host live sessions that encourage real-time participation and bidirectional communication between trainers and participants. This interactive element contributes to a more stimulating learning environment and facilitates immediate exchange of ideas and discussions [26].

Digital performance management.

The integration of digital technologies is fundamentally reshaping the performance management paradigm by enabling interconnected systems, real-time data visibility, predictive analytics, and the use of big data to anticipate, evaluate, and improve overall organizational performance. The adoption of digital performance management has transformed employees from passive subjects of evaluation into active participants in managing their own performance. This transition has increased engagement and productivity while also capitalizing on the advantages of digital work settings, such as reduced commuting, lower operational costs, decreased illness-related absenteeism, and more flexible working arrangements [27]. In particular, digital performance evaluation systems that incorporate 360-degree feedback models, fuzzy multi-criteria decision-making methods, or upward feedback processes provide a more holistic and balanced assessment of employees. These systems collect input from multiple sources—including peers, subordinates, supervisors, self-evaluations, and, in some cases, project

stakeholders and customer feedback—to ensure comprehensive and accurate evaluations. Using such tools, managers are better equipped to identify employees who require targeted development initiatives—such as customized training, additional certifications, or enhanced career development programs—and to determine the extent of improvement needed in specific areas [28].

Organizational resilience

In today's uncertain and fast-changing business environment, organizations must possess the capability to anticipate, confront, and effectively manage both unexpected internal and external challenges—such as natural disasters, financial crises, pandemics like COVID-19, sudden disruptions involving key stakeholders, and operational breakdowns caused by employees or management—to sustain ongoing operations. When faced with major disruptions, organizations respond differently—some successfully adjust and continue to thrive, whereas others struggle and ultimately fail; therefore, firms increasingly seek to strengthen resilience not only to survive but also to achieve sustained performance and long-term growth [1]. Some organizations rely on centralized control structures to manage risks and uncertainties. In contrast, others adopt more innovative and adaptive strategies that allow them to evolve in response to changing environmental conditions [11].

Regarding the conceptualization of organizational resilience, [29] defined it as the organization's ability to effectively adjust and respond to unexpected disruptions while maintaining its core purpose and operational efficiency. More specifically, organizational resilience is the capacity to anticipate potential threats, respond successfully to disruptions, and adapt to changing circumstances [30]. Understanding and developing resilience enhances an organization's position and supports its survival even under highly adverse conditions [31]. This study focuses on the three dimensions proposed by [30], namely: “anticipation capabilities, coping capabilities, and adaptation capabilities.” Anticipation capabilities refer to proactive and preventive actions aimed at identifying and addressing potential disruptions within the organization or its environment.

In contrast, coping capabilities reflect the organization's ability to manage and respond effectively to unexpected critical events as they occur [1]. Furthermore, coping capabilities consist of “the ability to accept an existing problem and the ability to develop and implement solutions” [30]. The final dimension of organizational resilience involves adaptation to adverse conditions—through reflection, learning, innovative problem-solving, and the reallocation of resources—and the ability to leverage change as an opportunity for organizational improvement.

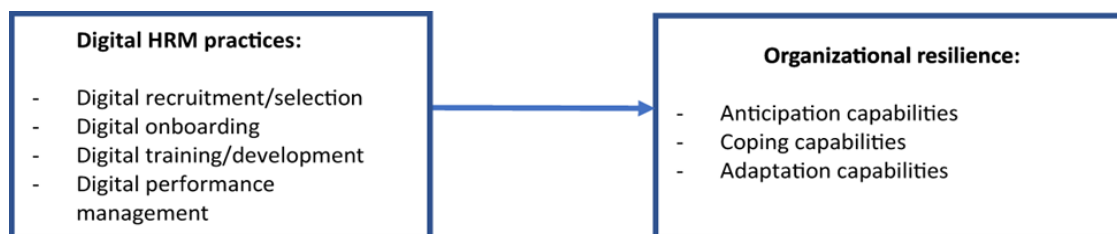
Digital human resource management and organizational resilience

Several studies have primarily focused on how specific digital technologies or capabilities contribute to organizational resilience during the COVID-19 pandemic, often emphasizing particular aspects such as defensive strategies [32]. In a similar vein, [33] found that higher levels of digital maturity significantly strengthen organizational resilience. In the HRM domain, a limited number of studies have highlighted the positive effect of E-HRM on organizational flexibility [9]. Organizational flexibility is generally defined as the ability to rapidly adjust to changing external environments [10]. Yet, it represents only one component of the broader concept of organizational resilience. Other studies have neglected the role of IT, electronic, or digital elements within HRM, instead demonstrating that strategic HRM enhances organizational resilience [11]. A clear gap remains in this research area, particularly regarding the influence of digital HRM on organizational resilience, underscoring the need for further empirical exploration. This study investigates advanced digital HRM practices and examines their relationship with organizational resilience in a developing economy.

Conceptual model and study hypotheses

The present research investigates the extent to which digital HRM practices shape the development of organizational resilience among enterprises in Bosnia and Herzegovina. In alignment with this objective, a conceptual framework was designed to support and guide the empirical examination.

Figure 1 presents the two central elements of the proposed model: digital HRM as the independent construct and its relationship with the dimensions of organizational resilience. Digital HRM consists of four primary practices: “digital recruitment/selection; digital onboarding; digital training/development; digital performance management” [8, 34]. Organizational resilience, treated as the dependent construct, is operationalized through three key dimensions: “anticipation, coping, and adaptation capabilities” [30].



Source: Authors' work

Figure 1. Conceptual model

Based on this theoretical structure, the study hypotheses were developed to reflect the expected relationships between variables, allowing both theoretical propositions and empirical effects to be examined systematically. The hypotheses are formulated as follows:

H1a. Digital HRM practices positively and significantly impact anticipation capabilities.

H1b. Digital HRM practices positively and significantly impact coping capabilities.

H1c. Digital HRM practices positively and significantly impact adaptation capabilities.

Materials and Methods

Sample description

A quantitative research design was applied, using a structured questionnaire to collect data from HR managers across organizations in Bosnia and Herzegovina, to assess the degree of digitalization in HR functions. The data were collected through two channels—email distribution and direct in-person contact with HR managers—using a convenience sampling approach based on accessibility and participant willingness rather than random selection. In total, 100 questionnaires were distributed, and 75 were returned, yielding a 75% response rate. The characteristics of the participating HR managers are summarized in **Table 1**.

Table 1. Features of the HR managers included in the sample

Variables	Frequency (%)
Gender	
Male	37
Female	63
Age groups	
30 years or below	14
31–40 years	44
41–50 years	35
50 years and above	7
Years of experience in HR	
1–10 years	39
11–20 years	48
More than 21 years	13
Level of education	
Postgraduate qualification	35
University (bachelor's) degree	49
Highly skilled vocational qualification	16

The sample composition shows a predominance of female HR managers, who accounted for 63% of respondents, while males accounted for 37%. Regarding age distribution, the largest share of participants was middle-aged, with 44% aged 31–40 years and 35% aged 41–50 years. Additionally, 14% were 30 years old or younger, whereas only 7% were 50 years or older.

In terms of educational level, most respondents held higher education qualifications: 49% held bachelor's degrees, 35% master's degrees, and 16% advanced vocational qualifications. Regarding professional tenure, 48% reported 11–20 years of HR experience, 39% reported 1–10 years, and 13% reported more than 21 years.

Regarding organizational characteristics, **Table 2** outlines the profile of participating firms, demonstrating varied representation across both company size and industry, thereby strengthening the study's analytical foundation.

Table 2. Features of the organizations

Variables	Frequency (%)
Firm size (total number of employees)	
1–49 employees	20
51–249 employees	49
More than 250 employees	31
Total	100 (n = 75)
Industry sector	
Manufacturing industry	29
Commercial sector	38
Service industry	33
Total	100 (n = 75)

Source: Authors' work

Regarding organizational size, nearly half of the sample (49%) consisted of medium-sized firms employing 51–249 employees, highlighting their dominance in the regional business environment. Small firms with 1–49 employees represented 20% of the sample, while large organizations with more than 250 employees accounted for 31%, ensuring inclusion of firms across different operational scales.

In terms of sectoral distribution, the sample included three main industries: 29% of organizations operated in manufacturing, reflecting production-oriented activities; 38% were engaged in commerce, representing trade and retail operations; and 33% were in the service sector, offering intangible services. This sectoral balance enabled a more comprehensive and context-sensitive analysis of digital HRM practices.

Questionnaire items, measurement methods, and the research instrument's reliability

The study operationalized digital HRM practices—namely “digital recruitment/selection, digital onboarding, digital training/development, and digital performance management”—in accordance with the research objectives, drawing on [35] and related scholarly work. All questionnaire items were measured using a five-point Likert scale, where 5 indicated “strongly agree” and 1 indicated “strongly disagree.”

The digital recruitment and selection construct was measured using three items, such as: “We apply advanced AI-based digital technologies to improve the sourcing and assessment of candidates”; “AI-enabled digital platforms increase our accuracy in aligning applicants' competencies with job requirements.” The digital onboarding construct included four items, for example: “AI-supported digital onboarding enables rapid and efficient completion of administrative processes”; “AI-enhanced onboarding provides a complete introduction to organizational policies and culture.”

Digital training and development was measured through four items, including: “AI-driven digital training initiatives significantly strengthen employee competencies and skills”; “Our organization continuously updates AI-supported digital training content to maintain relevance.” Digital performance management was assessed using three items, such as: “The AI-assisted digital performance management system efficiently monitors employee performance”; “Digital feedback systems are accessible and improve clarity in performance evaluation.”

The organizational resilience scale—comprising anticipation, coping, and adaptation capabilities—was adapted and refined from the instrument developed by [1], consisting of 16 items. A five-point Likert scale was used for all items, ranging from (1 – strongly disagree) to (5 – strongly agree).

The anticipation capabilities dimension included six items, such as: “We have developed structured formal plans for addressing potential risks and threats”; “Our organization can recognize and anticipate future critical events, crises, and their potential consequences.” The coping capabilities dimension consisted of four items, including: “We ensure continuity of operations by promptly informing employees and stakeholders about responses to emerging issues”; “During crises, we effectively coordinate between formal organizational structures and crisis management communication teams.”

The adaptation capabilities dimension comprised six items, for instance: “Our organization emphasizes knowledge dissemination on how to respond to unexpected challenges”; “In cases where key employees are unavailable, others are prepared to take over and perform their roles effectively.”

Reliability of all measurement scales was tested using Cronbach's alpha. The results confirmed that all constructs (the four digital HRM dimensions and the three organizational resilience dimensions) exceeded the 0.7 threshold, indicating strong reliability and internal consistency across all measures (**Table 3**).

Table 3. Reliability of data

Variables	Number of items	Cronbach's alpha
Digital recruitment/selection	3	0.901

Digital onboarding	4	0.829
Digital training and development	4	0.857
Digital performance management	3	0.910
Anticipation capabilities	6	0.876
Coping capabilities	4	0.840
Adaptation capabilities	6	0.858

Source: Authors' work

Testing the primary research hypothesis

Before conducting the multiple regression analysis, a correlation test was performed. The results identified meaningful associations between digital HRM practices (independent variables) and organizational resilience dimensions (dependent variables). Correlation coefficients ranged between 0.262 and 0.484, all of which were statistically significant at the 1% and 5% levels.

Subsequently, a multiple regression analysis was conducted to assess the effects of digital HRM practices on organizational resilience dimensions, specifically testing hypotheses H1a, H1b, and H1c. Three separate regression models were developed, with all four digital HRM practices—"digital recruitment/selection; digital onboarding; digital training/development; and digital performance management"—included as independent variables. Each resilience dimension was analyzed independently, resulting in three models labeled: "anticipation capabilities; coping capabilities; and adaptation capabilities."

Table 4 presents the results, showing that digital HRM practices significantly influence all dimensions of organizational resilience across the three models.

Table 4. The findings from the regression analysis on how digital HRM practices impact organizational resilience

Models and variables	Organizational resilience		
	Anticipation capabilities	Coping capabilities	Adaptation capabilities
<i>R</i>	0.585	0.552	0.511
<i>R</i> ²	0.338	0.304	0.261
df	75	75	75
Sig.	0.000	0.001	0.001
	Coef.	Coef.	Coef.
Constant	1.217	1.423	2.289
Digital recruiting/selection	0.305*	0.220*	0.232*
Digital onboarding	0.271*	0.331**	0.285*
Digital training and development	0.443**	0.452**	0.344**
Digital performance management	0.470**	0.390**	0.403**

Notes: n = 75; *statistically significant at 5%; **statistically significant at 1%

Source: Authors' work

The first regression model indicates that digital HRM practices significantly predict anticipation capabilities, explaining 33.8% of the variance ($R^2 = 0.338$). The strongest predictors were digital performance management ($\beta = 0.47$) and digital training/development ($\beta = 0.44$), both significant at the 1% level, followed by digital recruitment/selection ($\beta = 0.30$) and digital onboarding ($\beta = 0.27$), significant at the 5% level. These findings emphasize the importance of digital HRM in enabling organizations to anticipate and prepare for future disruptions.

The second model shows that digital HRM practices significantly affect coping capabilities, accounting for 30.4% of the variance ($R^2 = 0.304$). The most influential predictor was digital training/development ($\beta = 0.45$), followed by digital performance management ($\beta = 0.39$) and digital onboarding ($\beta = 0.33$), all significant at the 1% level. In comparison, digital recruitment/selection ($\beta = 0.22$) was significant at the 5% level.

The third model reveals that digital HRM practices significantly influence adaptation capabilities, explaining 26.1% of the variance ($R^2 = 0.261$). The strongest effects were found for digital performance management ($\beta = 0.40$) and digital training/development ($\beta = 0.34$), both significant at the 1% level, followed by digital onboarding ($\beta = 0.28$) and digital recruitment/selection ($\beta = 0.23$), significant at the 5% level.

Overall, the findings demonstrate that digital HRM practices exert a strong and positive influence on all three dimensions of organizational resilience ("anticipation capabilities; coping capabilities; and adaptation capabilities"). Consequently, hypotheses H1a, H1b, and H1c are fully supported.

Results and Discussion

This study set out to determine whether digital HRM practices meaningfully contribute to strengthening organizational resilience. The regression outcomes confirmed a clear and statistically significant positive relationship between digital HRM

practices and organizational resilience, including its three dimensions: “anticipation capabilities, coping capabilities, and adaptation capabilities.” In this sense, implementing digital HRM emerges as a key enabler of resilience, supporting faster organizational responses and more effective, data-informed decision-making during disruptive conditions. It further promotes a more responsive and engaged workforce that is better equipped to handle uncertainty while maintaining employee well-being and continuous development.

Although earlier studies have examined e-HRM in relation to organizational flexibility [9] and have also explored how strategic HRM contributes to resilience [11], the specific role of AI-driven digital HRM in developing resilience—particularly through anticipation, coping, and adaptation mechanisms—remains insufficiently investigated.

Among the examined practices, AI-enabled digital performance management and digital training/development showed the most pronounced effect on anticipation capabilities. Their impact is largely explained by continuous skill upgrading, real-time performance tracking, and evidence-based decision-making, all of which help build a workforce that is more capable, alert, and responsive to change.

When integrated with digital onboarding and digital recruitment/selection, these AI-supported HRM practices strengthen an organization’s ability to engage in proactive scanning, identify emerging trends earlier, maintain structured communication with stakeholders, and develop formalized risk preparedness strategies. In particular, AI-based recruitment and selection tools enhance the ability to identify and attract candidates with the competencies required not only for current operational needs but also for future uncertainties. This is achieved through algorithm-driven analysis, workforce forecasting, and enabling employees to detect patterns and disruptions early.

Similarly, AI-supported onboarding goes beyond basic orientation by offering real-time analytical insights, individualized learning experiences, and interactive digital dashboards, while also embedding employees within organizational objectives, risk response structures, and adaptive workflows. This helps cultivate an organizational mindset that is alert, informed, and better prepared for changing conditions and potential risks. Furthermore, the combined use of AI-enabled recruitment and onboarding supports more structured risk planning by linking human capital processes with predictive analytics and risk governance frameworks. Recruitment selects individuals with strong analytical and crisis-management abilities, while onboarding equips them with simulations, real-time information, and structured risk tools that facilitate coordinated planning for potential disruptions.

Regarding coping capabilities, AI-supported digital training and development emerged as the most influential factor. It plays a central role in equipping employees with the competencies needed to respond effectively during periods of disruption or uncertainty. Continuous development initiatives enhance workforce agility and strengthen the ability to manage unexpected situations. This finding is partially consistent with previous research emphasizing that strategic HRM practices—especially training and development—are essential for improving an organization’s capacity to cope with environmental instability [36]. Digital performance management ranked second among the most important contributors to coping capabilities. Continuous performance monitoring enables organizations to detect operational stress points, allocate resources more effectively, and sustain productivity during disruptions, thereby improving responsiveness under pressure. Additionally, both digital onboarding and digital recruitment/selection positively affect coping capabilities. AI-enhanced onboarding accelerates employee integration, enabling newcomers to contribute during critical situations, while digital recruitment and selection primarily reinforce long-term resilience rather than immediate crisis-response capacity.

Regarding adaptation capabilities, AI-supported digital performance management demonstrated the strongest influence. By providing continuous, real-time insights, it helps organizations identify inefficiencies, reallocate resources effectively, and maintain operational continuity, thereby enabling faster adaptation to changing circumstances. Overall, the results highlight the importance of leveraging digital technologies to simplify processes, enable continuous, data-driven insights, and support real-time feedback, objective alignment, and ongoing improvement—all of which are essential for organizational adaptability. This research contributes to a deeper theoretical and empirical understanding of digital HRM by demonstrating its central role in enhancing organizational resilience, particularly by strengthening anticipation, coping, and adaptation capabilities in organizations operating in developing economies. From a practical standpoint, the findings position AI-enabled digital HRM as a strategic enabler of resilience—defined as the ability to anticipate risks, sustain operations during disruptions, and adapt to environmental change—especially in volatile and emerging market contexts.

More specifically, digital recruitment and selection technologies improve the efficiency of identifying and evaluating talent, ensuring that organizations acquire the necessary skillsets to handle disruptions. Digital onboarding systems support rapid integration and alignment with organizational culture and expectations, increasing readiness for change. Digital training initiatives continuously upgrade employee competencies to maintain adaptability in evolving environments. Finally, digital performance management systems provide ongoing monitoring and immediate feedback, enabling timely interventions and improved workforce performance.

A primary limitation of this research is its relatively small sample size and narrow geographical coverage, as the study relies on data from 75 HRM professionals based solely in Bosnia and Herzegovina. This constrained scope may not fully capture the variety of HRM practices and organizational experiences across different organizational structures and broader contexts. For future investigations, it would be worthwhile to employ longitudinal research designs to evaluate how digital HRM practices shape organizational resilience over extended time periods. Expanding the research across multiple industries and cultural environments would also help to test the robustness and wider applicability of the findings. Moreover, future studies could incorporate moderating variables such as organizational size, internal culture, regulatory conditions, and sector-specific characteristics, as these factors may explain differences in how digital HRM influences resilience across organizations.

Conclusion

In addition, further research should identify which specific digital technologies and tools are most effective in enhancing organizational resilience, while also examining how leadership practices and employee participation affect the successful implementation of these systems. Comparative analyses between emerging and developed economies would further deepen understanding by revealing how digital HRM practices may need to be adjusted in line with differing economic development levels and institutional environments.

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