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ANALYSIS OF DIGITAL TRANSFORMATION AS A DRIVER OF WORKFORCE AGILITY: A SYSTEMATIC REVIEW FROM A TALENT MANAGEMENT PERSPECTIVE

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Abstract

Digital transformation has become a strategic necessity for organizations, enhancing competitiveness in the modern economy. While extensive Research explores technological and operational aspects, understanding how digital initiatives affect workforce agility through talent management remains limited. This systematic literature review examined 19 peer-reviewed articles (2021-2025) to explore how digital transformation enhances workforce agility and how talent management strengthens this relationship. Following the PRISMA framework and PICO criteria, we systematically searched four databases (SagePub, Scopus, ScienceDirect, Wiley) and managed articles using Covidence for quality screening. Analysis revealed three main pathways: First, digital transformation enhances workforce agility by developing digital capabilities and adopting innovation. Second, strategic talent management practices mediate relationship between digital initiatives and workforce agility outcomes. Third, organizational factors like leadership, culture, and HR analytics moderate the strength of these relationships. Significant Research gaps emerged, including limited examination of age diversity in digital talent management, insufficient understanding of implementation barriers in developing countries, and a lack of longitudinal evidence on the sustainability of workforce agility. This study proposes an integrated framework that combines perspectives on digital transformation, workforce agility, and talent management, advancing theoretical understanding and providing practical insights for HR professionals navigating organizational change amid complex digitalization processes.

Keywords: Digital Transformation, Workforce Agility, Talent Management, Digital HRM, Organizational Agility.

INTRODUCTION

The rapid development of digital technology is driving major changes in how organizations operate, compete, and manage their workforce amidst today's business dynamics (Agustian et al., 2023). Digital transformation is the process of applying digital technology to all aspects of an organization's operations, driving fundamental changes to business models and how organizations create and deliver value (Kraus et al., 2023). Today, digital transformation is no longer viewed merely as a technological upgrade, but has become a strategic necessity that determines an organization's sustainability and competitiveness (Robertsone & Lapina, 2023). Digital transformation has become a primary focus for various organizations worldwide, reflected in global investment, which exceeded USD 2.16 trillion in 2023 and is expected to increase to around USD 3.5 trillion in the coming years (Paul et al., 2024). Despite significant investments made by organizations, several studies have revealed that approximately 70% of digital transformation efforts fail to meet their initial objectives, primarily due to human resource-related factors (Madanchian & Taherdoost, 2022). This phenomenon indicates that digital transformation plays a significant role in influencing workforce dynamics, particularly in enhancing organizational agility and adaptability (Abdurrahman et al., 2024). This Research is increasingly important amid the post-pandemic acceleration of digital transformation, which has altered work practices, competency requirements, and workforce expectations for achieving optimal organizational performance. Workforce agility is becoming an increasingly important organizational capability in the digital era. This concept refers to the ability of employees and organizations to quickly recognize change, respond to it, and adapt to environmental dynamics without sacrificing performance effectiveness (Janani & Vijayalakshmi, 2025). Unlike traditional concepts of operational efficiency or

flexibility, workforce agility encompasses cognitive, behavioral, and collaborative aspects, enabling organizations to survive and thrive amidst uncertainty and disruption (Petermann & Zacher, 2022). Organizations with high levels of workforce agility tend to demonstrate better innovation performance, can respond more quickly to market changes, and are more resilient in the face of crises (Das et al., 2023). The strategic role of workforce agility is becoming increasingly important, particularly in industries experiencing rapid technological development, where an organization's ability to adapt and reorganize talents, competencies, and work processes is a determining factor in maintaining competitiveness (Breu et al., 2002). However, building and maintaining workforce agility is not easy, as it relies not only on the availability of technology but also requires fundamental changes in organizational culture, leadership styles, and human resource management practices.

In an organizational context, talent management is recognized as a critical function that helps attract, develop, engage, and retain high-performing employees to support organizational goals (Aljbour et al., 2025). Digital transformation is pushing organizations to develop more adaptive talent management practices, as traditional approaches are becoming less relevant amid challenges such as the digital skills gap, changing employee expectations, remote work dynamics, and the demands of continuous learning (Montero Guerra et al., 2023). A recent study showed that organizations that have maturely implemented digital talent management tend to have significantly better innovation performance, even reaching 2.5 times, and employee retention rates that are 1.8 times higher than those of organizations that are not yet digitally mature (Montero Guerra et al., 2023). The application of digital technology in talent management (e-HRM) plays a crucial role in enhancing organizational agility. This technology helps organizations make more accurate, data-driven decisions, perform HR functions more efficiently, and create a better work experience for employees (Alqarni et al., 2023; Aminudin et al., 2024). However, understanding the specific mechanisms by which digital talent management practices Influence workforce agility remains limited, particularly regarding the interaction between technological capabilities, HR management strategies, and organizational outcomes.

Although academics and practitioners increasingly focus on digital transformation and workforce agility, previous studies still face several limitations. Several studies have examined the impact of digital transformation on organizational performance, whereas others have focused more on factors that drive workforce agility, without directly linking these factors. First, studies systematically linking these two aspects remain rare, particularly those examining how digital transformation contributes to workforce agility through talent management. The study by Kraus et al. (2023) focused on the future of work without emphasizing the link between talent management and agility, whereas Montero Guerra et al. (2023) examined digital transformation in the context of talent management but did not directly address its impact on agility. Second, previous studies generally adopted the perspective of a single country or industry, so the findings produced still have limitations for generalization across various organizational contexts, especially when applied to developed and developing countries (Schimmelpfennig et al., 2025). Third, attention to the mechanisms that explain the effectiveness of digital transformation initiatives in improving workforce agility remains relatively limited (Zhang et al., 2025). Fourth, age diversity and the implementation of inclusive talent management have not been widely studied in digital transformation Research. Meanwhile, Gillberg & Wikstrom (2021) find that digital talent initiatives may unwittingly exclude more senior workers. Finally, the long-term benefits of digital transformation remain uncertain, as most studies still use cross-sectional designs that cannot capture change dynamics sustainably.

This study systematically reviews the empirical evidence on how digital transformation enhances workforce agility in the context of talent management. The novelty of this study lies in its integrative analysis of these three elements, which have often been studied separately in previous research. Theoretically, this study contributes to the advancement of knowledge through an integrative framework that details the pathways, mechanisms, and boundary conditions of digital transformation's influence on workforce agility via talent management practices. Practically, this study is expected to serve as an evidence-based reference for HR practitioners, organizational leaders, and policymakers. To that end, this study sets three main objectives: to identify and categorize the primary mechanisms explaining how digital transformation affects workforce agility; to test the role of talent management practices as mediators and moderators in this relationship; and to identify existing research gaps and formulate a future research agenda to enrich academic understanding and support practical applications in this field.

LITERATURE REVIEW

Digital Transformation in Organizations

Digital transformation refers to fundamental changes in organizations across operations, strategy, and value creation, driven by digital technology, data analytics, and new business models (Kraus et al., 2022). Unlike previous waves of information technology adoption that emphasized automation and work efficiency, today's digital

transformation encompasses not only technological aspects but also cultural, structural, and strategic changes that impact all organizational functions. Gomez et al. (2024) explain that digital transformation is a multidimensional concept that involves technological infrastructure readiness, data-driven decision-making capabilities, strengthening digital culture, and updating business models through innovation. From a holistic perspective, successful digital transformation is not only related to the use of technology but also requires organizational learning, employee capability development, and a comprehensive shift in work perspectives and implementation (Blanka et al., 2022).

Recent Research shows that digital transformation significantly affects organizational innovation, competitiveness, and the capacity to adapt to change. According to Gupta et al. (2024) The role of digital pioneers influences the success of digital transformation, the implementation of a clear governance system, and the use of reverse mentoring, which significantly impacts organizational efficiency and workforce digital capabilities in large organizations. Sahibzada et al. (2022) also found that digital capabilities and digital innovation are important pathways linking entrepreneurial leadership to improved sustainability performance. The findings of this study emphasize that the success of digital transformation depends not only on technological aspects but also on human-oriented factors, such as leadership commitment, employee engagement, and organizational cultural alignment.

Workforce Agility as a Strategic Capability

In an organizational context, workforce agility demonstrates the collective capacity of employees and work units to respond quickly to environmental dynamics through appropriate decision-making and adaptive action, while maintaining optimal performance. According to Janani & Vijayalakshmi (2025) Workforce agility is a multidimensional construct influenced by individual psychological aspects, including epistemic curiosity, emotional states, and cognitive processes. Research by Braine & Georges (2023) shows that interest-based curiosity and positive emotions directly Influence agility. Meanwhile, deficit-based curiosity does not directly Influence agility; rather, it influences agility through a longer process of reflection. The psychological perspective emphasizes that workforce agility cannot be developed solely through structural or process approaches; it also requires attention to individuals' cognitive and emotional states.

Organizationally, workforce agility is evident in the implementation of flexible work designs, employee performance adaptability, and resource-allocation adjustments aligned with organizational needs. Lamovsek et al. (2025) explain that different work arrangements, whether in-office, hybrid, or remote, require tailored work designs to optimize task performance. Task identity is a necessary factor across all work models, while other elements, such as task variety, information processing, social support, and feedback mechanisms, vary across work modalities. (Hernaus et al., 2024). These findings confirm that developing workforce agility cannot be achieved through a uniform approach; it must be tailored to the specific organizational context and work arrangements. Hamid et al. (2015) found that although manufacturing companies are technologically ready to support Industrial Agile Working, low capacity for organizational change and inflexible workforce management remain major obstacles. As a result, the desired agility has not been fully realized.

Talent Management in the Digital Era

Today, talent management has evolved beyond an administrative function to a strategic organizational capability that significantly contributes to achieving competitive advantage in the digital economy. Aljbour et al. (2025) explain how an organization views talent, whether as an inherent superior ability, as potential that can be developed through investment, or as something that is strongly influenced by context, significantly determines how talent management practices are designed and implemented within the organization. These findings emphasize that successful implementation of digital talent management requires a clear talent philosophy that is integrated with the organization's strategy and digital transformation goals.

The application of digitalization to talent management practices, often referred to as electronic HRM (e-HRM), is widely regarded as having a positive impact on organizations, particularly by improving work efficiency, supporting data-driven decision-making, and enriching the employee experience. Research by Alqarni et al. (2023) and Aminudin et al. (2024) has shown that e-HRM systems have significantly strengthened sustainable competitive advantage through continuous innovation and organizational agility. On the other hand, Alexandro (2025) presents a more complex picture regarding MSMEs and startups in Indonesia. His findings indicate that only innovations in recruitment and retention, supported by HR analytics and AI, significantly impact workforce productivity, whereas other digital HRM practices do not. This suggests that a strategically implemented, non-comprehensive approach to digital HRM may be more effective than full-scale digitalization. In the digital era, crucial talent management practices include enhancing digital competencies, adapting to change, facilitating continuous learning, and adopting an inclusive approach (Chaudhary et al., 2025). According to Starke & Ludviga (2025) Innovation adoption plays a

crucial role in enhancing employees' digital competencies during digital transformation, alongside intrinsic motivational factors. These findings contradict initial expectations and challenge the conventional wisdom that emphasizes intrinsic motivation, suggesting that structured approaches to innovation adoption may be more effective at supporting capability development. Furthermore, Lourenco & Rodrigues (2025) Research indicates that organizational orientation positively contributes to employee retention intentions through work engagement. However, supervisor support did not have a significant mediating effect when examined alongside work engagement, suggesting that, in the digital work context, organizational structural factors are more decisive than interpersonal relationships for employee retention.

Integration: Digital Transformation, Talent Management, and Workforce Agility

The relationship among digital transformation, talent management, and workforce agility has attracted scholarly attention due to their rapid development and significant impact on both theory and practice. Montero Guerra et al. (2023) explain that digital transformation plays a crucial role in driving organizational change, particularly in reshaping talent management practices to make organizations more effective in attracting and retaining talent. Meanwhile, Kraus et al. (2023) found that organizations are increasingly adapting work arrangements, leveraging digital technologies, and implementing sustainable HR practices in response to digital transformation, the rise of remote and hybrid work, and changing labor market dynamics. These Research findings confirm a reciprocal relationship in which digital transformation both facilitates and demands the evolution of talent management, which, in turn, affects workforce agility. Alieva & Powell (2023) warn that digital transformation brings mixed consequences, in which soft management practices and employee behaviors can be both enhanced and constrained. Misaligned HR practices then contribute to the emergence of digital waste. This complexity underscores the need for systematic studies to elucidate the conditions under which digital transformation can effectively strengthen, rather than weaken, workforce agility through talent management practices.

METHOD

Research Methodology

This study employs a Systematic Literature Review (SLR) method that follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to ensure transparency, reproducibility, and accuracy in the synthesis of evidence regarding the relationship between digital transformation, talent management, and workforce agility. The literature search was conducted in four major academic databases (SAGE Publications, Scopus, ScienceDirect, and Wiley) using a combination of keywords and Boolean operators: ("Digital Transformation" OR "Digital Innovation") AND ("Agility" OR "Flexibility") AND ("Talent Management" OR "Human Resource Management"). To ensure the findings are up-to-date and relevant, the search was limited to peer-reviewed journal articles published between January 2021 and December 2025.

Inclusion and Exclusion Criteria (PICO Framework)

The PICO framework was used in selecting studies to ensure inclusion and exclusion criteria were clear and applicable (Eldawlatly et al., 2018). Studies were included if they met the following criteria:

1. Population: The study focuses on an organizational setting, involving employees, HR professionals, managers, or talent-based work teams.
2. Intervention/Exposure: The study examines digital transformation, digital innovation, or technology-enabled organizational change and how it impacts HR practices, talent development, or workforce capabilities.
3. Comparison: Not required, but Research comparing pre- and post-digital transformation, organizations with different levels of digital maturity, or cross-industry comparisons is preferred.
4. Outcome: Focus on workforce agility, organizational agility, flexibility, adaptability, or performance outcomes directly related to these.
5. Study Design: This can be an empirical study (quantitative, qualitative, or mixed methods) or a theoretical article that builds a causal or relational framework, and is published in a peer-reviewed journal.

Research was excluded if it addressed populations outside the organization, examined HR digitalization in administrative areas without strategic relevance, or had not yet undergone peer review.

Screening and Selection Process

All successfully collected articles were then entered into Covidence, a web-based platform for managing systematic reviews. The screening process was conducted in two stages, with two reviewers working independently to assess titles and abstracts against the inclusion and exclusion criteria. The level of agreement between reviewers

was assessed using Cohen's kappa coefficient, which indicated moderate-to-high agreement. Articles that passed the initial stage then proceeded to full-text screening.

Data Extraction and Quality Assessment

A standard data extraction form was used to record basic information from each study, including bibliographic data, study characteristics, theoretical framework, key variables, key findings, and limitations. Quality was assessed by examining the rigor of the methods, the strength of the theoretical foundation, the appropriateness of the analysis, and the value of the Research contribution. Additionally, the journal's Q1 and Q2 quartile rankings, as reported by the Scimago Journal Rank, were recorded to assess quality.

Data Synthesis and Analysis

The primary method of synthesis employed was narrative synthesis. The process involved identifying available data, generating initial codes, identifying patterns and themes, reviewing and refining these themes, and finally defining final themes and supporting evidence. The synthesis results were then presented by theme, supplemented with evidence from relevant studies.

RESULTS AND DISCUSSION

A literature search across four major databases (SAGE, Scopus, ScienceDirect, and Wiley) initially identified 766 articles, which were reduced to 762 after removing duplicates. Through title and abstract screening based on PICO criteria, 697 articles were excluded, leaving 65 full-text articles that were downloaded for eligibility assessment. From the evaluation of these full-text articles, 46 were eliminated; 44 due to mismatched research focus and 2 because they were not indexed in Q1 or Q2 in the Scimago Journal Rank. In the final stage, 19 high-quality peer-reviewed journal articles were selected that met all criteria for synthesis to answer the research questions.

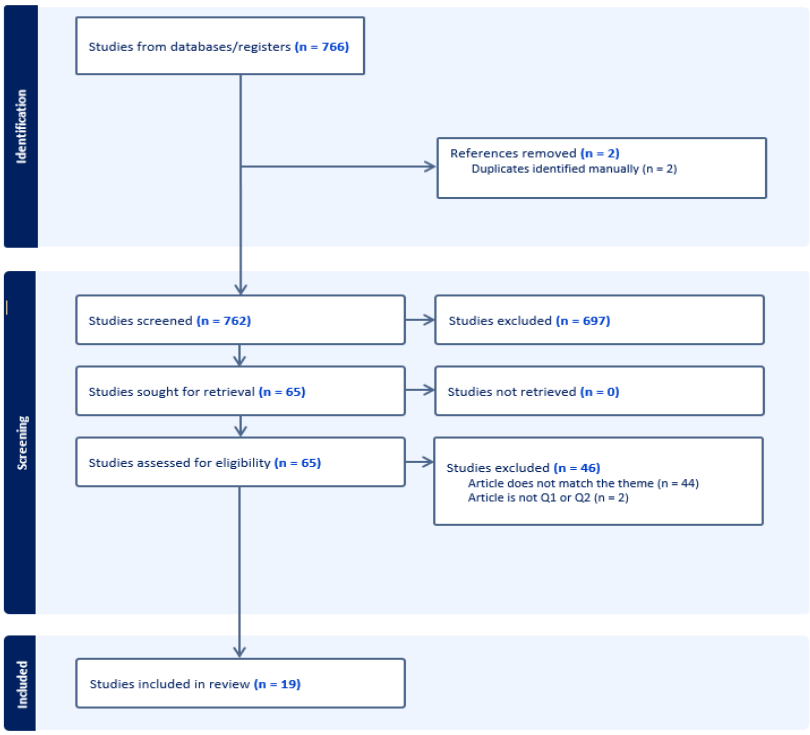

Figure 1: Article Search Process and Selection Criteria Setting

Regarding publication years, all 19 studies reviewed were published between 2021 and 2025, ensuring the data used remains up to date and relevant. Across all studies, a trend of increasing publication frequency in recent years is evident: 1 in 2021, 1 in 2022, 4 in 2023, 5 in 2024, and 8 in 2025. This pattern indicates increased academic attention to the relationship between digital transformation and workforce agility, particularly in the post-pandemic era, in which digital acceleration and employee flexibility are key organizational priorities.

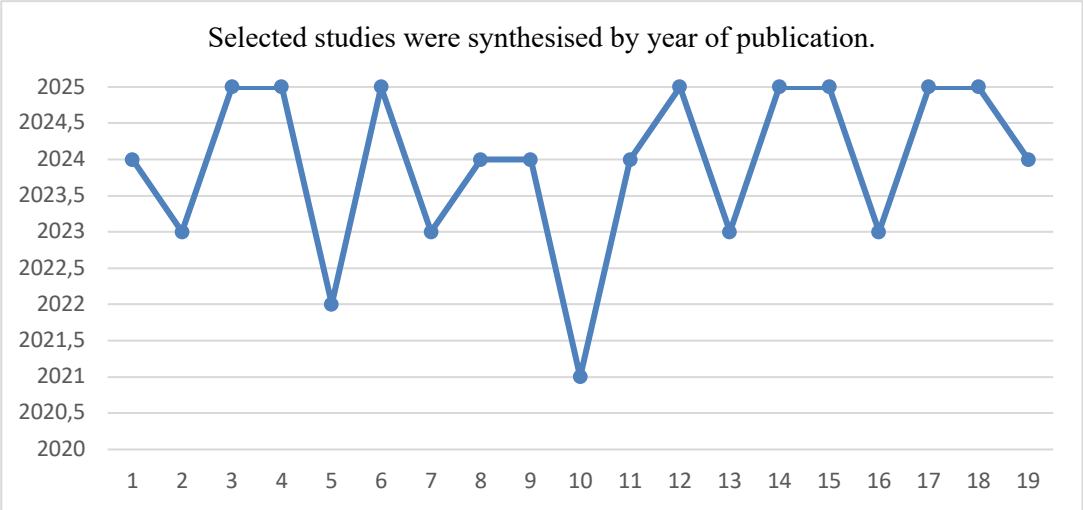

Figure 2. The selected studies were synthesised by year of publication

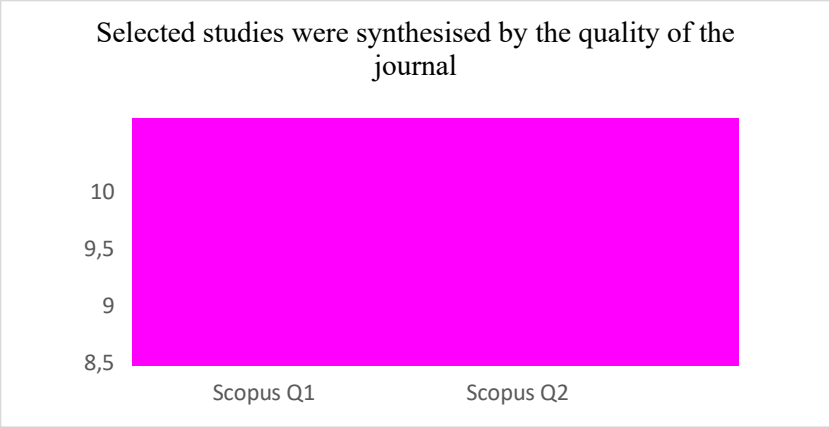

Figure 3. The selected studies were synthesised by the quality of publication

In terms of publication quality, the articles analyzed demonstrated a relatively high scientific standard. Nine articles (47%) were published in Q1 journals and eight articles (42%) in Q2 journals according to the Scimago Journal Rank. The remaining two articles (11%) were published in reputable journals that, although not ranked in the quartiles at the time of review, still met quality criteria such as peer review and methodological rigor. Examples of Q1 journals include Human Resource Development Quarterly, Global Business and Organizational Excellence, Heliyon, Journal of Innovation & Knowledge, Information Systems Journal, Social Sciences & Humanities Open, Technological Forecasting and Social Change, Computers & Industrial Engineering, and Journal of Organizational Effectiveness. Meanwhile, Q2 journals include the International Journal of Engineering Business Management, Cogent Business and Management, International Journal of Lean Six Sigma, Sustainability, International Journal of Data and Network Science, Expert Systems, Acta Psychologica, and Systems.

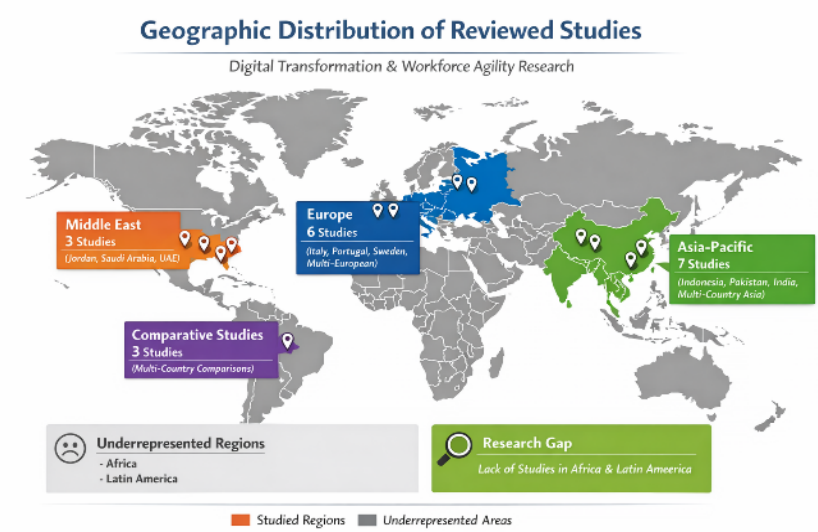

Figure 4. The selected studies were synthesised by the quality of publication

Geographically, the reviewed studies cover a wide range of organizational contexts, although there is some concentration and some gaps. The distribution of studies includes the Middle East (3 studies focusing on Jordan, Saudi Arabia, and the UAE), Asia-Pacific (7 studies including Indonesia, Pakistan, India, and a multi-country sample from Asia), Europe (6 studies from Italy, Portugal, Sweden, and a multi-country sample from Europe), and multi-country comparative studies (3 studies). This geographic diversity helps make the findings more generalizable across different economic, cultural, and institutional environments. However, the review also highlights the underrepresentation of Africa and Latin America, highlighting a significant gap in the global understanding of the relationship between digital transformation and workforce agility.

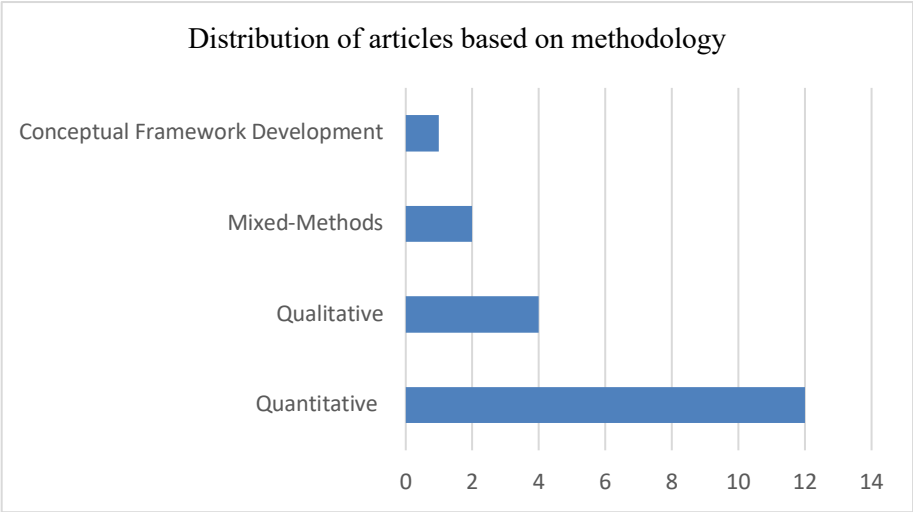

Figure 5. Distribution of articles based on methodology

Methodologically, the 19 studies analyzed employed a variety of research designs, thereby strengthening the overall conclusions. Specifically, 12 quantitative studies employed structural equation modeling or regression analysis; 4 qualitative studies employed case studies or interviews; 2 mixed-methods studies combined quantitative and qualitative data; and 1 study developed a conceptual framework. This diversity of methods enables triangulation of findings across different strategies, providing both a broad overview through large-scale quantitative studies and a deeper understanding through qualitative insights. The dominance of quantitative methods reflects the field's focus on examining relationship and mechanisms. At the same time, qualitative studies help capture context and new themes that might not be apparent through structured surveys.

Digital Capability Development as Core Mechanism

Digital transformation drives increased workforce agility, primarily through the structured development of employees' digital capabilities. According to Sahibzada et al. (2025), employees' digital capabilities serve as a bridge between entrepreneurial leadership and digital innovation. Gupta et al. (2024) found that the workforce can significantly improve its digital skills through the presence of digital champions, governance mechanisms, and reverse mentoring. Meanwhile, Starke & Ludviga (2025) emphasized the crucial role of innovation adoption in enhancing digital competence, suggesting that structured programs are more effective than relying solely on intrinsic motivation.

Strategic Talent Management as Enabler

Specific talent management practices serve as critical mediators. Alexandro (2025) provides evidence that innovation in recruitment and retention, combined with HR analytics, significantly improves workforce productivity. Montero Guerra et al. (2023) Demonstrate how digital transformation reshapes talent management practices to enhance attraction and retention. Lourenco & Rodrigues (2025) Reveal onboarding practices enhance retention primarily through workplace attachment rather than supervisor support.

Work Design Adaptations

Lamovsek et al. (2025) show different work arrangements require distinct configurations, with task identity universally important but specific combinations of variety, information processing, social support, and feedback tailored to each modality. Kraus et al. (2023) Demonstrate how organizations adapt their arrangements, technologies, and HRM practices in response to transformation and labor dynamics.

Digital Communication Effectiveness

Afridi et al. (2023) demonstrate that digital communication tools significantly improved project performance during crisis conditions, with ease of use playing a stronger moderating role than management support, suggesting that user-centric design may be more critical than hierarchical endorsement.

Contextual Factors and Challenges

Janani & Vijayalakshmi (2025) reveal psychological factors, including curiosity types and emotions, that Influence agility. Akin & Reyhanoglu (2025) show employee anxiety affects workload, stress, and satisfaction. Alieva & Powell (2023) provide evidence that misaligned practices contribute to digital waste, highlighting potential downsides of poorly designed digital initiatives. Gillberg & Wikstrom (2021) reveal age-based exclusion in talent management practices.

DISCUSSION

This systematic review synthesizes empirical evidence from 19 high-quality studies to demonstrate that digital transformation drives workforce agility through complex mechanisms mediated by talent management practices. These findings challenge simplistic, deterministic views of technology by revealing that HR strategies, organizational culture, and leadership approaches serve as crucial forces that can either support or hinder the conversion of digital investments into agility outcomes. Overall, this synthesis provides strong evidence for understanding the pathways to workforce agility as well as the critical mediating role of talent management in this relationship.

Digital Capability Development as Core Driver

The first major finding is that the development of digital capabilities is the most fundamental mechanism by which digital transformation influences workforce agility. This finding extends prior Research by demonstrating that technological infrastructure alone is insufficient; rather, systematic investment in employees' digital competencies is the critical pathway to enhancing agility. The evidence from Sahibzada et al. (2025) and Ghafoori et al. (2024) converges in showing that organizations that successfully develop workforce agility through digital transformation employ structured capability development approaches, including digital champions, reverse mentoring, and formal training programs. Particularly noteworthy is the counterintuitive finding from Starke & Ludviga (2025) that innovation adoption mechanisms prove more decisive than self-determined motivation in enhancing digital competencies. This challenges conventional human resource development theory, which emphasizes intrinsic motivation as the primary driver of learning and capability development (Mahbub, 2025). The finding suggests that in digital transformation contexts, structured organizational mechanisms for innovation adoption, including clear

implementation pathways, peer support systems, and formalized experimentation opportunities, may be more effective than relying on individual employees' intrinsic interest in technology.

The mediating role of big data capability identified by Xu et al. (2025) adds an important dimension to understanding the capability development pathway. Digital transformation does not directly enhance agility; rather, it builds analytical capabilities that enable faster sensing and responding to environmental changes. This sequential mediation suggests that organizations should view capability development as a staged process where foundational technical competencies precede advanced agility capabilities. However, the findings from Alexandro (2025) that certain digital HRM practices show no significant effects. In contrast, others strongly impact productivity suggests that not all capability development initiatives contribute equally to agility, highlighting the need for strategic selectivity rather than comprehensive digitalization.

Strategic Talent Management as Critical Mediator

The second major theme emerging from this review concerns the critical mediating role of specific talent management practices in translating digital investments into workforce agility outcomes. The evidence shows that the impact of digital transformation on agility is not automatic; it depends fundamentally on how organizations design and implement talent management practices. This finding addresses a critical gap in prior Research, which often treated technology adoption and talent management as separate organizational initiatives rather than as interdependent processes requiring integrated design.

The strong effects of recruitment and retention innovation, combined with HR analytics, were found by Alexandro (2025) suggest that digital talent management must begin at the attraction and selection stages. Organizations that successfully enhance workforce agility through digital transformation actively use digital tools and analytics to identify, attract, and select candidates with both digital competencies and adaptive mindsets. This proactive approach contrasts with reactive training approaches that attempt to develop agility capabilities after hiring. Montero Guerra et al. (2023) Corroborate this by showing that digital transformation fundamentally reshapes talent management practices to enhance attraction and retention capabilities, suggesting a reciprocal relationship in which digital transformation both enables and necessitates evolved talent management.

The finding from Lourenco & Rodrigues (2025) that workplace attachment, rather than supervisor support, mediates the onboarding-retention relationship challenges traditional relationship-based integration approaches. In digital and hybrid work contexts, fostering strong organizational identification and belonging through structured onboarding processes, digital community building, and clear communication of organizational values may be more effective than relying on individual supervisor-employee relationships. This has important implications for onboarding design in increasingly distributed work environments where traditional supervisor mentoring may be less feasible.

However, the evidence from Aljbour et al. (2025) reveals an important conditioning factor: organizational talent philosophies fundamentally shape how talent management practices are designed and emphasized. Organizations that view talent as an innate ability to be identified will design different practices than those that view talent as a capability to be developed or as context-dependent potential to be enabled. This suggests that successful digital talent management for agility requires explicit articulation of talent philosophy aligned with agility objectives. Organizations seeking to develop workforce agility may need to shift from exclusive talent philosophies that focus on identifying exceptional individuals toward more inclusive philosophies that recognize developable potential across the workforce.

Work Design Adaptations for Agility

The third significant finding concerns the necessity of adaptive work design configurations tailored to specific work arrangements. Lamovsek et al. (2025) provide compelling evidence that one-size-fits-all approaches to agile work design are ineffective; different work modalities require distinct combinations of work design elements to achieve high performance. While task identity is universally important across on-site, hybrid, and remote work, the optimal configurations of task variety, information-processing capabilities, social support mechanisms, and feedback systems vary substantially by work arrangement.

This finding has important implications for organizations implementing hybrid work models as part of digital transformation. Simply allowing employees to work remotely without redesigning work processes, information flows, and support mechanisms is unlikely to enhance agility and may actually diminish performance. The evidence suggests that effective hybrid agility requires deliberate work design interventions that recognize the unique affordances and constraints of each work modality. Organizations must invest in understanding which work design configurations optimize agility in each context rather than assuming that practices effective in on-site environments

will transfer seamlessly to hybrid or remote settings. The cautionary finding from Jamil et al. (2025) That technological readiness alone is insufficient for implementing Industrial Agile Working reinforces this point. Despite possessing the necessary technologies, the manufacturing firms in the study struggled to implement agility due to limited organizational change capacity and inflexible workforce management practices. This implementation gap highlights that work design transformation requires more than the provision of technology; it necessitates fundamental changes in management philosophy, performance evaluation systems, and employee autonomy. Organizations pursuing digital transformation for agility must simultaneously address technological, structural, and cultural dimensions rather than focusing exclusively on technology deployment.

Digital Communication and Collaboration Infrastructure

The fourth theme addresses the role of digital communication tools in enabling workforce agility, particularly during crises. Afridi et al. (2023) demonstrate that digital communication tools significantly improved project performance during COVID-19 lockdowns, with ease of use playing a stronger moderating role than top management support. This finding challenges traditional top-down technology implementation approaches that emphasize hierarchical endorsement over user experience design.

The stronger effect of ease of use than of management support suggests that enhancing workforce agility through digital tools depends critically on user-centric design and intuitive functionality. Employees facing urgent adaptive challenges prioritize tools they can immediately deploy without extensive training or management intervention. This has important implications for the selection and implementation of digital tools. Organizations should prioritize user experience, integration with existing workflows, and minimal learning curves over feature comprehensiveness or management preferences. The finding also suggests that grassroots technology adoption driven by employee needs may be more effective for enhancing agility than mandated enterprise solutions selected primarily for standardization or control.

Contextual Factors and Boundary Conditions

The review reveals important contextual factors that moderate the effectiveness of digital transformation in driving workforce agility. Janani & Vijayalakshmi (2025) Identify psychological factors, including curiosakiity types and emotional states, as significant influences on agility. Interest-type curiosity and positive emotions directly enhance agility, while deprivation-type curiosity affects agility indirectly through brooding rumination. This finding suggests that workforce agility development requires attention to psychological and emotional dimensions beyond purely structural or technological interventions.

Organizations implementing digital transformation must consider how these initiatives affect employee psychological states and emotional well-being. Evidence from Akin & Reyhanoglu (2025) that employee anxiety significantly increases perceived workload and work stress and reduces job satisfaction in work-from-home settings reinforces this concern. Digital transformation initiatives, particularly those involving changes in work arrangements, may inadvertently create psychological burdens that undermine rather than enhance agility. Effective digital transformation for agility requires psychological support systems, stress-management resources, and attention to well-being alongside the implementation of technology.

The finding from Alieva & Powell (2023) that digital transformation both enhances and constrains soft management practices, with misaligned HR practices contributing to the emergence of digital waste, provides important cautionary evidence. Not all digital transformation initiatives enhance agility; poorly designed or misaligned implementations can create inefficiencies, frustration, and waste that reduce rather than enhance agility. This highlights the importance of careful alignment between digital initiatives and existing organizational practices, cultures, and values. Organizations must assess potential negative consequences and implementation challenges rather than assuming digital transformation automatically enhances agility.

Perhaps most concerning is the evidence from Gillberg & Wikstrom (2021) revealing age-based exclusion in digital talent management practices. Despite older workers' valuable organizational knowledge and experience, digital talent initiatives may inadvertently privilege younger workers by assuming they have digital nativity or the capacity to adapt. This age bias not only raises ethical and legal concerns but also represents a strategic failure to leverage the full talent potential of the workforce. Organizations pursuing digital transformation for agility must explicitly address age diversity and the design of inclusive practices to avoid reproducing or exacerbating existing inequalities.

CONCLUSIONS

This systematic review demonstrates that digital transformation drives workforce agility through three

primary pathways: digital capability development, strategic talent management practices, and the optimization of organizational context. Evidence synthesized from 19 high-quality studies indicates that talent management serves as a critical mediating mechanism, with practices such as strategic recruitment, innovation, capability development programs, adaptive onboarding, and inclusive talent recognition determining the effectiveness of transformation.

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