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Analyzing the Interplay Between Digital Transformation, Workforce Agility, and Intangible Resources: A Systematic Literature Review

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Abstract:

This paper offers a comprehensive systematic literature review examining in organisational environment, the complex interactions of digital transformation, workforce agility, and intangible resources. Organisations in several sectors are continuously navigating difficult digital environments due to technology advancement, changing market dynamics, and unparalleled disruptions like the COVID-19 epidemic. This study methodically examined 63 peer-reviewed publications using PRISMA criteria and methods. Emerging themes included the need of innovation and knowledge management, the effect of digital transformation on employee wellbeing and work-life balance, the rising relevance of ethical considerations and data privacy, and the vital part of digital competency in organisational success. The findings highlight the complex and context-dependent characteristics of digital transformation, influenced by technology adoption, organisational culture, leadership dynamics, and intangible resources. This review enhances academic debate by providing an integrated paradigm linking digital transformation, workforce agility, and organisational design. It highlights deficiencies in the literature, especially concerning the function of intangible assets and sector-specific dynamics, while providing pragmatic insights for managers aiming to navigate complex digital environments. The paper concludes with recommendations for future research, urging more nuanced, longitudinal, and multi-level studies to enhance comprehension of the growing digital transformation landscape.

Keywords:

Digital Transformation, Workforce Agility, Intangible Resources, Organisational Ambidexterity, Human Capital Management.

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Introduction and Background

The continuous convergence of sophisticated digital technologies, evolving market dynamics, and extraordinary external challenges (e.g., the COVID-19 pandemic) has expedited digital transformation across businesses globally (Vial, 2019). Research across various disciplines highlights the importance of integrating advanced strategies, workforce adaptability, digital frameworks, and leadership methodologies as essential elements for enhancing responsiveness and competitiveness in this swiftly changing landscape (Mubarik et al., 2019; Rani et al., 2024). Despite the increasing interest in digital transformation, the concept remains complex and sometimes unclear (Verhoef et al., 2021). This literature review integrated findings from 63 analysed research papers, focusing on organisational design, human capital management, and workforce agility in a gradually agile service environment. The study examined the theoretical foundations that elucidate the drivers of digital transformation and the development of workforce adaptability. The rapid increase of advanced digital technologies has transfomed the corporate environment, requiring substantial digital transformation for organisations across all sectors. Driven by the integration of innovations including artificial intelligence, big data analytics, cloud computing, and the Internet of Things, digital transformation has progressed beyond simple technology adoption, evolving into a comprehensive organisational transformation that redefines strategies, structures, and processes (Vial, 2019; Verhoef et al., 2021). This transition is especially apparent during global shocks such as the COVID-19 pandemic, which expedited the integration of digital tools and remote work methodologies, highlighting both potential and limitations in traversing digital environments (Fagbemi et al., 2025)).

In this evolving environment, the concept of workforce agility has become an essential enabler of effective digital transformation. Characterised by attributes including proactivity, adaptability, resilience, and competence, workforce agility empowers employees and organisations to adjust rapidly and effectively to market fluctuations, technology advancements, and external disruptions (Tessarini and Saltorato, 2021). Agile workforces improve operational efficiency and promote innovation and knowledge-sharing, which are essential for competitive advantage in the digital age.

Intangible resources, such as human capital, structural capital, and relational capital, are crucial in facilitating digital transformation initiatives. Rooted in the Resource-Based View of the firm (Barney, 2001), these intangible assets function as essential enablers that connect technological adoption with enduring organisational performance. Human capital includes the skills, expertise, and creativity of employees, whereas structural and relational capital promote knowledge transfer and interdisciplinary collaboration (Mubarik et al., 2019. The strategic interaction of these resources is vital for cultivating organisational ambidexterity, the capacity to balance exploration and exploitation, which is critical for managing the intricacies of digital transformation.

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Notwithstanding the growing body of research on digital transformation, workforce agility, and intangible assets, substantial gaps exist. Research frequently focus exclusively on technology adoption or certain facets of organisational transformation, neglecting the interrelatedness of various components (Verhoef et al., 2021). The unique problems are also encountered by micro, small, and medium-sized firms MSMEs in implementing and expanding digital initiatives are inadequately examined, even though MSMEs represent a substantial segment of the global economy (Ahmed et al., 2019; Beynon et al., 2021).

The main objective of this study is to analyse the correlation between digital transformation, workforce agility, and intangible resources, as well as to determine the critical variables that facilitate or impede successful digital transformation in businesses. The research objective was accomplished by methodically synthesising current knowledge on digital transformation and workforce agility, facilitating the identification of essential success factors and difficulties related to digital adoption. The study offered a comprehensive examination of the enablers and barriers to digital transformation, emphasising the impact of workforce agility and intangible resources on organisational responses to digitisation.

This study examined the complex problems businesses encounter in effectively managing digital change, specifically in promoting workforce agility and employing intangible assets like intellectual capital and leadership. Despite the increasing focus on digital transformation in various sectors, there is still insufficient clarity on how companies can successfully merge technical innovations with human capital strategies to attain lasting competitive advantage. This study employed a systematic literature review methodology, examining 63 peer-reviewed articles to synthesise existing data and identify principal drivers, obstacles, and strategic facilitators of digital transformation. The study provides a thorough understanding of how organisations can reconcile technological innovation with workforce capabilities by analysing themes such as technology adoption, workforce agility, leadership, and organisational culture, thereby significantly addressing the research problem. The main research question for the study is; How does the interaction between digital transformation, workforce agility, and intangible resources influence organisational success in the changing digital environment? The study synthesised findings from several scholarly sources to establish a comprehensive framework for understanding how digital transformation, workforce agility, and intangible resources collectively enhance organis ational competitiveness in the digital age. It advocated for future study emphasising longitudinal studies and industry-specific assessments to enhance digital transformation methods.

Methodology

This study employed a systematic literature review technique to thoroughly investigate the complex nature of digital transformation, workforce adaptability, and the significance of intangible resources in working environments. The systematic literature review method was chosen for its organised,

transparent, and reproducible methodology, facilitating the integration of existing knowledge across several fields. This technique adhered to the systematic literature review protocols defined by Tranfield et al. (2003) and Kitchenham and Charters (2007), ensuring a thorough and impartial review of the pertinent literature. The methodical methodology allowed the identification, assessment, and integration of empirical and conceptual studies, establishing a solid basis for resolving the research question.

The primary aim of this systematic literature review was to integrate and synthesise disparate research on digital transformation and workforce agility, providing a comprehensive picture of how these phenomena occur across many industries and organisational scales. The research focused on peer-reviewed scholarly journals and conference proceedings. A comprehensive search was conducted from an academic databases, (Scopus). The database was selected for its extensive coverage of peer-reviewed literature across relevant fields related to this study. A meticulously developed search strategy was executed, employing targeted keywords and Boolean operators to guarantee the acquisition of relevant research. The primary search terms encompassed “Digital transformation,” “Workforce agility,” “Organisational design,” “Intangible resources,” “Leadership,” and “Micro.” These were combined with relevant synonyms and abbreviations (e.g., transform, agile, organisation) to expand the reach. The search focused on titles, abstracts, and keywords to optimize the retrieval of relevant papers. The preliminary search produced 611 papers. To enhance the dataset, the studies were confined to five principal disciplines: Business Management and Accounting (442 papers), Economics, Econometrics, and Finance (170 papers), Social Sciences (144 papers), Engineering (53 papers), and Multidisciplinary research, yielding a total of 560 publications.

Clear inclusion and exclusion criteria were implemented to ensure the quality and relevance of the studies selected. The review concentrated on peer-reviewed journal articles and conference papers published in English and accessible via open-access platforms. Studies, both empirical (quantitative, qualitative, and mixed methods) and conceptual, were included if they related to the fundamental topics of digital transformation, workforce adaptability, or organisational performance. The exclusion criteria eliminated editorials, dissertations, book chapters, comments, non-English studies, and items restricted by paywalls. Studies that failed to properly address the study topics or lacked significant contributions to the subject were removed.

The meticulous selection process reduced the dataset as follows: 560 papers (after initial disciplinary filtering), 175 papers (after application of specific keyword filters), 172 papers (after limitation to English-language research), 68 papers (after restriction to open-access publishing). Five papers were removed due to accessibility concerns, yielding a final collection of 63 studies that constituted the foundation of this systematic review.

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The selection process followed the PRISMA standards for systematic reviews and meta-analyses to ensure methodological transparency and replicability. The process involved three principal phases: Screening of titles and abstracts: Titles and abstracts were evaluated to determine their relevance to the research questions. Studies explicitly addressing digital transformation, workforce agility, or other themes were retained. Comprehensive Text Evaluation: The whole texts of the remaining papers were analysed to assess methodological quality, analytical depth, and relevance to the core issues.

A systematic data extraction process was used to obtain critical information from each study, encompassing bibliographic characteristics (author, year, journal), research aims, industrial context, methodology, sample size, and principal findings. A special focus was placed on thematic elements concerning digital transformation drivers, workforce adaptability, leadership dynamics, and intangible resources. The data synthesis combined narrative synthesis and thematic analysis to integrate findings from several investigations. This dual methodology facilitated the recognition of repeating themes and patterns while integrating both qualitative insights and quantitative trends.

Despine the methodical approach, certain limitations remain. Limiting the review to English-language and open-access papers may have omitted significant research published in other languages or behind paywalls. The interpretive aspect of thematic analysis involves a level of subjectivity, although attempts to maintain consistency. A further constraint resides in the swiftly advancing landscape of digital transformation research. Although the evaluation encompasses studies till 2025, it may not comprehensively reflect emerging trends and technology. The dependence on peer-reviewed research omits insights from industry reports and grey literature, which may provide significant practical viewpoints.

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Methodology Pie Chart

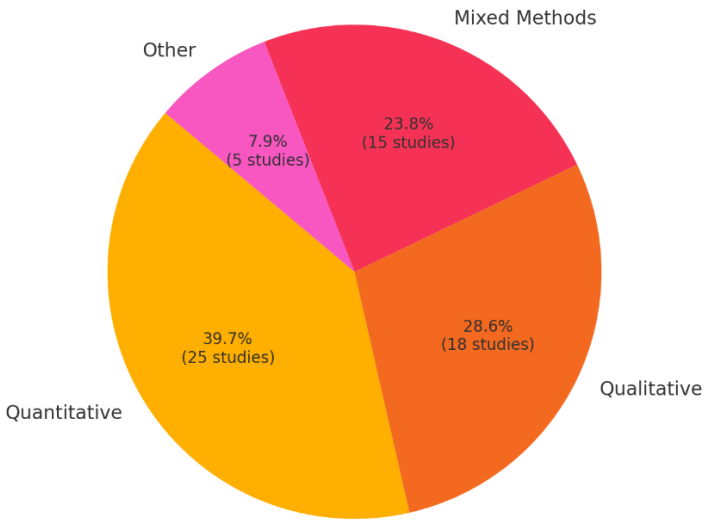

Figure 1: Distribution of Methodologies Across Studies (Counts & Percentages)

This pie chart illustrates the distribution of research methodologies used across the 63 analysed studies. It shows the proportion of studies that used quantitative (25), qualitative (18), mixed methods (15), and other methodologies (5). The "Other" category includes conceptual frameworks, literature reviews, and case studies without clear methodological definitions. This chart gives readers insight into the diversity of approaches used in studying digital transformation and workforce agility.

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Literature Review

Key Themes Pie Chart

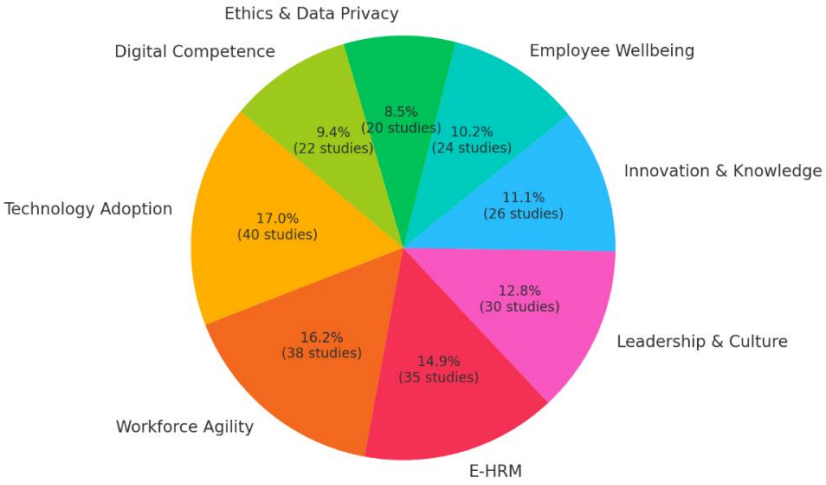

Figure 2: Proportion of Studies Focusing on Key Themes (Counts & Percentages)

This pie chat illustrates the distribution of studies focusing on main themes such as technology adoption (40), workforce agility (38), e-HRM (35), leadership and culture (30), and emerging themes like innovation & knowledge (26), employee wellbeing (24), ethics and data privacy (20), and digital competence (22) are among the major themes that are represented in this pie chart. It illustrates which sectors received greater scholarly attention and demonstrates the complexity of digital transition.

Technology Adoption Bar Chart

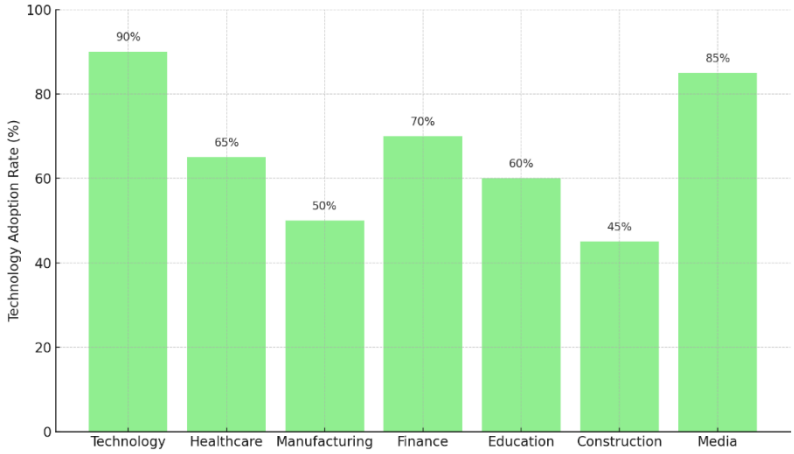

Figure 3: Technology Adoption by Sector

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This bar chart shows comparison of technology adoption in different industries. In terms of adoption, the construction (45%) and manufacturing (50%) industries trail behind the technology (90%) and media (85%) sectors. Moderate usage is seen in industries like healthcare (65%) and finance (70%). This graphic draws attention to the disparities in the speed of digital transformation and the sector-specific variations in digital preparedness.

Stacked Bar Chart, Digital Adoption & Workforce Agility

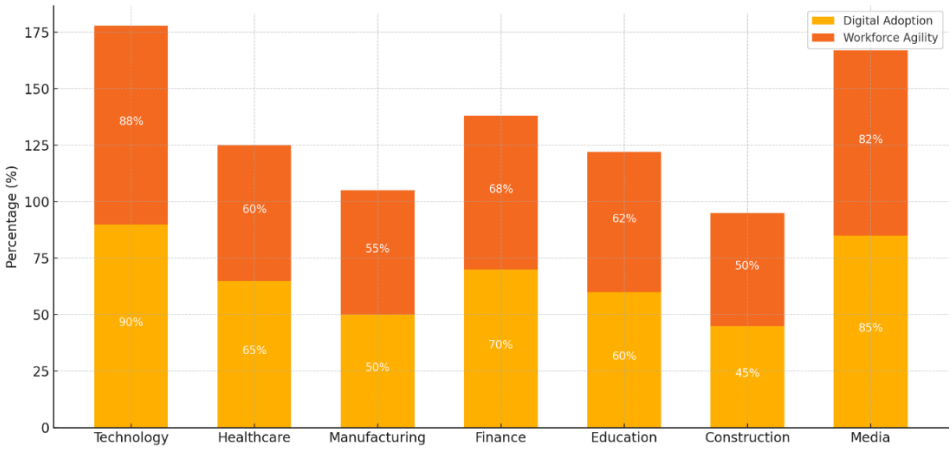

Figure 4: Digital Adoption and Workforce Agility by Sector

This stacked bar chart shows a combined perspective of workforce agility and digital adoption across industries. It demonstrates how industries like media and technology have strong workforce adaptability levels in addition to high adoption rates (88% and 82%, respectively). On the other hand, industries such as construction face challenges in both domains. The relationship between labour flexibility and technology adoption is highlighted in this graphic, particularly in knowledge-intensive industries.

Sector-Specific Insights Table

Sector	Digital Adoption (%)	Workforce Agility (%)
Technology	90	88
Healthcare	65	60
Manufacturing	50	55
Finance	70	68

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Sector	Digital Adoption (%)	Workforce Agility (%)
Education	60	62

Figure 5: Sector-Specific Insights Table

This table shows a side-by-side comparison of workforce agility (%) and digital adoption (%) across various industries. It provides a clear picture of how different industries differ in terms of their success in adopting digital transformation. For example, the construction industry is behind in both categories (45% adoption, 50% agility), while the technology sector leads in both (90% adoption, 88% agility).

Conceptualising Digital Transformation

The conceptual framework of digital transformation has advanced significantly during the last ten years. Initially confused with digitisation, which refers to the conversion of analogue information into digital format, and digitalisation, the incorporation of digital technologies into routine processes, digital transformation has evolved to signify a comprehensive reconfiguration of organisational structures, strategies, and operations (Vial, 2019). Initial definitions, as proposed by Westerman et al. (2014), primarily emphasised the adoption of digital tools to enhance efficiency and promote creativity. Contemporary perspectives include the socio-technical aspects of change, emphasising the interrelation between technology advancement and organisational culture, leadership, and workforce dynamics (Verhoef et al., 2021).

At the core of this conceptual change is the acknowledgement that effective digital transformation goes beyond simple technology adoption. It requires a fundamental restructuring of organisational strategies, structures, and processes, supported by a culture that fosters agility, innovation, and continuous learning (Appelbaum et al., 2017). The resource-based view emphasises the significance of intangible assets, including intellectual capital, organisational culture, and leadership competencies, in fostering sustained competitive advantage in digitally changed environment (Barney, 2001).

Challenges and Barriers to Digital Transformation and Technology Adoption Patterns

Notwithstanding the myriad advantages of digital transformation, companys' face challenges and barriers. Resistance to change constitutes a major impediment, as employees may exhibit reluctance to embrace new technologies or workflows (Cai et al., 2018; Sherehiy and Karwowski, 2014). Skill deficiencies present a difficulty, since numerous firms encounter difficulties in locating people with requisite digital capabilities (Doeze-Jager-van-Vliet et al., 2019). Moreover, the incorporation of new technologies into established systems can be complex and resource-demanding, especially for small

and medium-sized firms with constrained financial and technical capabilities (Ahmed et al., 2019; Beynon et al., 2021). Organisational silos and lack of cross-functional communication can impede the success of digital transformation initiatives (Goran et al., 2017).

Empirical research indicates considerable variation in technology adoption between different industries and organisational sizes. Alan's (2023) bibliometric analysis indicates that artificial intelligence, big data, and cloud computing are among the most commonly adopted technology in digital human resource management contexts. Adoption rates, however, fluctuate according to organisational readiness, leadership endorsement, and industry-specific requirements (Peter et al., 2024). Swiss MSEs identified as "digital pioneers" demonstrate greater rates of remote work implementation and integrated digital solutions than "late adopters" (Peter et al., 2024). Mahmood and Mubarik (2020) further illustrate that technology absorptive capacity, defined as the ability to internalise and use new technologies, is closely correlated with enterprises' intellectual capital and enhances competitive advantage.

Relationship Between Organisational Design and Human Capital

Research consistently demonstrates that digital transformation redefines the coordination between employees, departments, and managers, prompting an continuous realignment of roles, procedures, and decision-making frameworks (Goran et al., 2017). Structural modifications, including the reduction of hierarchies, decentralisation of authority, and the establishment of cross-functional teams, have been progressively prevalent in agile environment (Holbeche, 2018). Some authors (Sia et al., 2016) emphasise the significance of newly established digital "centres of excellence" that promote interdepartmental collaboration, while others argue that digital transformation requires the integration of data-driven solutions into routine tasks and decision-making processes (Jani et al., 2021). The importance of intangible resources, such as intellectual capital, is crucial in this transition, facilitating knowledge transfer across structural, relational, and human capital (Lentjušenkova and Lapina, 2016).

Defining Workforce Agility, Emergence and Dimensions

Workforce agility has become a fundamental concept in digital evolution, and it is described (Qin and Nembhard, 2015; Cai et al., 2018) as employees' ability to anticipate, adapt, learn, and respond successfully in unpredictable environments. Workforce agility is a strategic competency at the micro level that enhances organisational resilience and creativity. Rani et al. (2024) assert that workforce agility serves as a catalyst for maintaining agile management, particularly in service-oriented environments where intangible assets such as knowledge, client relationships, and brand reputation are paramount.

Tessarini and Saltorato (2021) identified four interrelated characteristics of workforce agility Proactivity: The inclination of employees to anticipate challenges, demonstrate autonomy, and independently

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resolve issues (Muduli and Pandya, 2018; Storme et al., 2020). This element aligns with the creative drive essential for innovation in digital transformations (Parveen and Reddy, 2024). Flexibility and Adaptability: The readiness to manage various responsibilities, transition duties rapidly, and adjust to changing requirements (Alavi et al., 2014). In a digital context, organisational change frequently requires personnel to adapt to new platforms and collaborate within cross-functional teams (Holbeche, 2018). Resilience: The capacity to endure uncertainty and challenges. Studies have consistently linked resilience to employees' positive attitudes toward dynamic reskilling, reorganisations and re-engineering tasks (Sherehiy and Karwowski, 2014). Braun et al. (2017) emphasise that resilience is essential for alleviating possible burnout in agile environments. Competence: The skills, education, and specialised knowledge that personnel must continuously enhance to effectively manage advanced technologies (Qin & Nembhard, 2015). The significance of learning ability and training is highlighted (Doeze-Jager-van-Vliet et al., 2019), particularly in digital transitions that necessitate new competencies, like data analytics, machine learning, and cloud computing. Workforce agility emphasises individuals' ability to adapt in a dynamic landscape of changing processes and technology, connecting strategic innovation objectives with operational efficiency (Pitafi et al., 2019).

The Role of Human Resource Management HRM and Leadership in Fostering Agility

HRM is a crucial factor in establishing and maintaining agility (Muduli, 2016). The importance of e-HRM or digital HRM which is integrating technological solutions into HR functions is widely discussed in many studies (Galanaki et al., 2019; Alan, 2023). AI-driven recruitment, skill-based compensation, continuous performance monitoring, and flexible reward systems all promote employee attitudes of proactivity and adaptability. Likewise, tailored training modules, such as cross-training and work rotation, designed by managers enable employees to acquire multi-domain competences (Braun et al., 2017). Leadership serves as a conduit that sets the cultural tone (Muduli and Pandya, 2018. Transformational leaders that articulate an inspiring vision for digital transformation, promote collaborative knowledge sharing, and remove structural or normative barriers can substantially enhance employees' agility (Cai et al., 2018). The collaborative interaction of leadership support and HR-facilitated capacity development promotes the interplay between exploration (innovation) and exploitation (operational excellence), known as organisational ambidexterity (Zhang and Suntrayuth, 2024).

Intersections of Digital Transformation, Workforce Agility, and Organisational Design

The synthesis of the literature reveals a clear intersection of digital transformation, workforce agility, and organisational design (Barthel, 2023; Tessarini and Saltorato, 2021; Rani et al., 2024). The relationship

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can be understood as follows: Digital transformation changes the competencies required of individuals, emphasising agility; hence, workforce agility enhances the organisation's capacity to leverage new digital technologies and maintain competitive advantage (Christodoulou et al., 2024). The structural re-organisation through decentralisation, cross-functional teams, and information exchange platforms enhances agility by providing employees with autonomy and opportunities for innovation (Holbeche, 2018). The synergy is enhanced by intangible resources such as intellectual capital (Mubarik et al., 2019) and a digital culture that together foster an environment conducive to organisational resilience and growth. Simultaneously, the role of leadership has come to the fore in uniting these elements. Transformational leaders that advocate for continuous learning, include people in collaborative sense-making, and embrace a flexible experimental mindset can secure the success of digital transformation. Research in several context, including Swiss MSEs (Alrasheedi et al., 2022) and globally operating SMEs, emphasises the synergy of workforce agility, leadership support, and organisational design as a strong framework for efficiently managing digital transformation.

Digital Innovation Ecosystems and Collaborative Networks

An emerging discussion in the literature is the significance of digital innovation ecosystems and collaborative networks in expediting digital transformation. Organisations are no longer isolated entities; rather, they engage in dynamic ecosystems comprising suppliers, consumers, technology partners, and even competitors (Nambisan et al., 2017). These environments promote open innovation, information transfer, and collaborative technical progress. Mubarik et al. (2019) stress the significance of intellectual capital in establishing robust inter-organisational networks that augment innovation skills and facilitate expedited technology adoption.

Collaborative networks, especially in manufacturing and healthcare, have proved crucial in co-developing digital solutions that tackle industry-specific difficulties (Ahmed et al., 2019). These ecosystems promote the dissemination of digital best practices, enabling SMEs to surmount resource constraints by utilising external expertise and technologies (Papadopoulos et al., 2020). The literature indicates that effective engagement in these ecosystems requires organisations to develop relationship capital and implement adaptable, open innovation methods (Secundo et al., 2019).

The Role of Data Analytics and Artificial Intelligence in Digital Transformation

The integration of data analytics with artificial intelligence AI has become a pivotal catalyst for digital transformation. Advanced analytics empower organisations to make data-driven decisions, improve operational efficiency, and create tailored consumer experiences (Brown et al., 2014). Artificial intelligence technologies, including machine learning and natural language processing, are employed across several industries to automate operations, forecast trends, and enhance supply chains

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(Mahmood and Mubarik, 2020). Research by Alan (2023) reveals that businesses possessing robust data analytics capabilities exhibit enhanced agility and innovation. These features enable staff to make informed decisions, optimise procedures, and react promptly to market fluctuations. Moreover, AI-driven tools in HR operations, including talent analytics and performance management, are augmenting workforce productivity and engagement (Vishwanath and Vaddepalli, 2023). However, the research warns against excessive dependence on AI in the absence of human supervision. Ethical problems, data privacy issues, and the need for transparent AI decision-making processes are persistent themes (Lepri et al., 2018). Organisations must reconcile technology breakthroughs with ethical frameworks to guarantee responsible AI implementation.

Employee Well-Being and Organisational Culture in Digital Transformation

Digital transformation significantly influences organisational culture and employee welfare. The transition to remote work, prompted by the COVID-19 pandemic, has transformed conventional workplace dynamics, offering both opportunities and challenges (Etheridge et al., 2020). Research suggests that businesses with strong digital cultures, characterised by openness, cooperation, and continuous learning are better positioned to navigate these changes (Slack, 2022). Employee well-being has become a vital factor in digital transformation efforts. The swift integration of digital tools may result in increased workloads, blurred work-life boundaries, and digital fatigue (Braun et al., 2017). Harsch and Festing (2020) highlight the significance of talent management strategies that emphasise employee well-being, encompassing flexible work arrangements, mental health support, and ongoing skill development. Organisational culture significantly influences employees' experiences throughout digital transformation. Transformational leadership, inclusive decision-making, and an emphasis on employee empowerment are essential enablers of favourable cultural transformations (Cai et al., 2018). The literature emphasises the need for organisations to implement a human-centric strategy in digital transformation, harmonising technology progress with employee welfare.

Findings

Theme 1: Technology Adoption Patterns and Variation

A consistent pattern of findings from several studies indicate that digital transformation cannot be simplified to the adoption of individual technologies; instead, it entails a comprehensive array of integrated solutions. Alan's (2023) bibliometric analysis identified artificial intelligence, big data, cloud computing, and mobile HRM applications as prevalent keywords in e-HRM research. These findings illustrate the influence of technological selections on the extent and complexity of digital transformation in organisational context. The quantitative data from diverse user-innovation and e-HRM studies, including "digital transformation of work" by Peter (2024) in Swiss MSEs, indicate that technology

adoption patterns align with the roles of "pioneers" and that is exhibiting advanced digital culture versus “late adopters” that is demonstrating minimal digital readiness. The Swiss MSE surveys conducted by Peter et al. (2024) reveal that pioneer MSEs had higher rates of remote work, highlighting the synergy between technology adoption and flexible work arrangements.

Consistent with the prior research by Quinn and Nembhard (2015), cross-training and job rotation extend beyond industrial environments and are pertinent in knowledge-intensive or service industries when integrated with contemporary digital tools (Holbeche, 2018; Tessarini and Saltorato, 2021). Mahmood and Mubarik (2020) assert in balancing innovation and exploitation in the fourth industrial revolution: role of intellectual capital and technology absorptive capacity that the capacity to assimilate technology, especially advanced industry 4.0 solutions, is significantly associated with intangible resources including human capital, social capital, relational capital. This link facilitates the effective equilibrium of exploration and exploitation or organisational ambidexterity. The findings suggest that technology absorption serves as a partial mediator in transforming intangible knowledge resources into tangible competitive advantage.

Theme 2: Workforce Agility in Practice

The presence of workforce agility as a multi-faceted phenomena is continuously supported by several empirical and conceptual studies (Tessarini and Saltorato, 2021; Sherehiy & Karwowski, 2014). The four proposed dimensions proactivity, flexibility and adaptability, resilience, and competence are robustly substantiated by empirical evidence. Sumukadas and Sawhney (2004) illustrate that Indian manufacturing SMEs employing job rotation and skill-based compensation experience increased employee proactivity, resulting in quicker responses to alterations in the production line. Likewise, Storme et al. (2020) demonstrate that personnel exhibiting significant adaptability and resilience in uncertain activities are more inclined to assume knowledge-sharing roles that enhance organisational learning.

Post-COVID analyses by many authors, including Peter et al. (2024) and Christodoulou et al. (2024), highlight that remote collaboration increases the necessity for proactivity and proficiency in virtual collaborative environments. Employees must navigate asynchronous communication channels, sophisticated digital platforms, and an increasing array of duties without direct physical supervision. Harsch and Festing (2020) emphasise the significance of talent management in closing this gap, facilitating the continual development of essential skill sets for people to remain adaptable in evolving digital workflows. However, several studies caution that not all employees adjust uniformly, resulting in skill disparities and possible stress if leadership and HR interventions are insufficient (Sohrabi et al., 2014).

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Theme 3: E-HRM and Digital HR Interventions

Among the 63 studies, e-HRM or digital HR is a recurring theme, with over 15 highlighting how technology-driven HR processes transform labour relations. Alan's (2023) bibliometric mapping reveals that the most frequently occurring nodes pertain to recruitment, performance management, talent analytics, and social media usage. Al Shobaki et al. (2017) examine the strategic aspect of e-HRM, highlighting how sophisticated HR data analytics may enhance the entire employee life cycle, from recruitment to development. The Swiss situation is illustrated by data from Peter et al. (2024), which indicates that MSEs implementing integrated e-HRM solutions had increased acceptance of remote work, likely attributable to enhanced scheduling, payroll, and performance monitoring capabilities.

One crucial component for success consistently identified is the link between e-HRM and a comprehensive digital or organisational strategy. Marler and Parry (2016) assert that the efficacy of e-HRM is achieved solely through its integration into a comprehensive transformation strategy, rather than as a supplementary module. For example, Storme et al. (2020) demonstrate that integrating workplace social media with performance feedback systems enhances employee agility by swiftly closing knowledge gaps. A vital element is maintaining employee engagement in the new digital HR processes, necessitating effective change management, skill development, and leadership communication (Doeze-Jager-van-Vliet et al., 2019; Brestler, 2021).

Theme 4: Leadership, Structural Shifts, and Culture

Empirical findings indicate the crucial importance of leadership in facilitating digital transformation. Tabrizi et al. (2019) assert that a visionary approach by senior executives, a willingness to challenge established practices, and a conducive environment for risk-taking are crucial for aligning technical solutions with end-user acceptance. In unravelling the concept of innovative work behaviour by Parveen and Reddy (2024), leadership is identified as a factor that cultivates an environment conducive to creativity and individual initiative. A significant aspect is the necessity for digital culture, highlighted in the study on by Bozkus, (2023) on organisational change. The establishment or enhancement of a digital culture promotes continuous learning, interdisciplinary cooperation, and transparent communication, which are essential for achieving workforce agility and facilitating digitally enabled changes (Christodoulou et al., 2024).

Moreover, numerous studies indicate that structural reconfigurations such as flattening hierarchies, implementing agile scrum teams, or adopting flexible workflows have a strong correlation with enhanced organisational ambidexterity. Numerous research confirm that the integration of intangible resources and structural modifications requires an organisational design that facilitates fluid knowledge flows (Sherehiy and Karwowski, 2014). The study by Santa et al. (2022) in production lines highlights that

multi-skilled employees, when positioned in well-structured cross-functional teams, may efficiently manage complicated tasks, thereby alleviating the tension between exploration and exploitation. Simultaneously, multi-case evaluations emphasise that the integration of digital culture and alignment of intangible resources produces strong performance in technology-driven environments.

Theme 5: Industry-Specific and MSE-Related Insights

Another emerging pattern in the results pertains to the heterogeneity among industries and the specific constraints faced by micro and small firms. In addition, significant disparities were consistently observed in advanced digital adoption for remote work, e-commerce, and data analytics across different industry sectors. The recently published paper by Peter et al. (2024) demonstrates that Swiss micro and small enterprises in technology and media significantly surpass the adoption of remote work arrangements relative to those in construction or manufacturing. Etheridge et al. (2020) documented a comparable tendency in the UK. This indicates that digital readiness is significantly influenced by the intangible intensity of each industry; high-intensity knowledge sectors clearly take the lead, while manufacturing and commerce are more dependent on physical presence (Felstead and Reuschke, 2020).

Moreover, micro and small firms frequently encounter restricted financial resources and inadequate skill sets, which hinder the extent of digital transformation (Ahmed et al., 2019; Beynon et al., 2021). Both recently published Swiss studies highlight that MSEs implementing technological solutions, particularly pioneers, demonstrate enhanced adaptability to crises such as COVID-19. Conversely, late adopters among MSEs encounter difficulties in moving staff to remote work or capitalising on emerging digital marketplaces. The collaboration with intangible resources is essential. Smaller enterprises possessing strong intellectual capital tend to be more effective in closing knowledge gaps and implementing advanced solutions (Marzo and Scarpino, 2016). Kumar and Sia (2017) found that smaller production units reduced capacity restrictions by promoting employee autonomy and implementing skill-based compensation, resulting in immediate enhancements in speed and inventiveness. Consequently, industry affiliation and size limitations influence digital transformation. Industries that are fundamentally knowledge-driven or offer intangible services exhibit more digital adoption and workforce adaptability. Micro and small enterprises that cultivate intangible resources can emulate such success, but the process demands greater resource investment. The consolidated results emphasise that context is crucial: digital transformation is not a universal process.

Sector-specific evaluations indicate varying levels of digital maturity and workforce adaptability. Knowledge-intensive industries, including technology and professional services, typically demonstrate elevated digital adoption and workforce agility, whereas traditional sectors such as manufacturing and construction encounter distinct challenges in technology integration (Peter et al., 2024; Etheridge et al., 2020). Regulatory constraints, resource availability, and labour demographics affect the speed and

efficacy of digital transformation initiatives. Industries with stringent regulations, such as healthcare and finance, may have heightened challenges to technology adoption, whereas small and medium-sized enterprises frequently grapple with constrained resources and insufficient technical skills (Ahmed et al., 2019; Beynon et al., 2021).

Challenges and Barriers to Digital Transformation

Despite the numerous advantages of digital transformation, companies encounter various hurdles and barriers. Resistance to change is a prevalent impediment, since employees may exhibit reluctance to embrace new technology or workflows (Cai et al., 2018; Sherehiy and Karwowski, 2014). Skill deficiencies present a considerable obstacle, especially in sectors experiencing swift technological transformation (Doeze-Jager-van-Vliet et al., 2019). The integration of new technologies into current systems can be resource-intensive and time-consuming, especially for organisations with legacy infrastructure (Mahmood and Mubarik, 2020). Examined studies indicate that organisational silos and insufficient cross-functional communication can impede the success of digital transformation programs (Goran et al., 2017).

Theme 6: Innovation and Knowledge Management in Digital Transformation

The interplay between innovation, knowledge management, and digital transformation is a recurrent theme in the analysed documents. Organisations that cultivate strong knowledge-sharing cultures are better equipped to innovate and adjust to shifting market needs (Christodoulou et al., 2024); Pitafi et al., 2019). By making it easier to gather, preserve, and share organisational knowledge, knowledge management systems improve decision-making and encourage ongoing development. It has been demonstrated that integrating social media tools into knowledge management systems improves knowledge sharing and employee engagement (Cai et al., 2018). This intergration encourages informal learning and support the development of communities of practice which are crucial for driving innovation. Additionally, companies that place a high priority on knowledge sharing frequently see increases in employee satisfaction and engagement, which results in a workforce that is more creative and adaptable (Doeze-Jager-van-Vliet et al., 2019).

Theme 7: Employee Wellbeing and Work-Life Balance in the Digital Era

The effect of digital transformation on work-life balance and employee well-being is another developing theme. Research by Felstead and Reuschke (2020) and Etheridge et al. (2020) demonstrated how, despite providing flexibility, remote work arrangements also brought with them issues with employee burnout and work-life balance. The well-being of employees has emerged as a crucial factor for businesses going through digital transformation. Harsch and Festing (2020) stressed the importance of adopting policies that promote employee mental health, such as regular check-ins, flexible working

hours and access to wellbeing resources. Furthermore, research by Braun et al. (2017) highlighted the necessity of training initiatives that give staff members the know-how to efficiently handle remote work, lowering stress and increasing output.

Theme 8: Ethical Considerations and Data Privacy in Digital Transformation

Data privacy and ethical issues have become significant concerns for organisations as they depend more and more on digital technologies. Research by Brown et al. (2014) and Kim and Couper (2020) demonstrated the growing importance of data governance systems that ensures the moral use of consumer and employee data. The adoption of big data analytics and artificial intelligence has raised concerns regarding accountability, bias, and transparency in decision-making processes. To maintain compliance and protect the interests of stakeholders, organisations must manage complicated regulatory environments, such as the General Data Protection Regulation GDPR (Rani et al., 2024). Furthermore, building confidence between staff and clients depends on cultivating a culture of ethical responsibility. Research by Parveen and Reddy (2024) and Tabrizi et al. (2019) highlighted the importance of moral leadership in fostering accountability and openness in businesses.

Theme 9: The Role of Digital Competence in Organisational Success

The last theme focuses on the crucial role of digital competence in achieving organisationl success. According to studies by Alavi and Abd-Wahab (2013) and Qin and Nembhard (2015), one of the main factors influencing worker agility and organisational success is digital competence, which includes technical skills, digital literacy, and the capacity to use digital tools. Businesses that make investments in continuous education and training initiatives are better equipped to handle the challenges of digital transformation. Doexe-Jagaer-van-Vliet et al. (2019) stressed the significance of portfolio-based learning strategies that motivate staff members to acquire a wide range of digital skills, improving their flexibility and resilience in changing contexts.

Discussion

The study provided a comprehensive examination of digital transformation, workforce agility, and the critical importance of intangible resources in many organisational situations. This discussion synthesises key findings from numerous studies in relation to current literature, contextualising these insights in broader theoretical and practical frameworks. The objective is to rigorously analyse the intersection of digital transformation initiatives with workforce agility, leadership, and organisational design. The data clearly indicate that digital transformation is not solely a technological endeavour but rather a socio-technical process (Verhoef et al., 2021). Technological innovations like artificial intelligence big data, and cloud computing underpin numerous digital transformation initiatives (Alan, 2023), yet their success depends on a complementary evolution in organisational culture, leadership practices, and workforce

competencies. The literature emphasises that organisations with high technology absorptive capacity, defined as the capacity to internalise and deploy new digital tools, attain more sustainable competitive advantages (Mahmood and Mubarik, 2020). This is especially apparent in Swiss MSMEs, where digital pioneers with high absorptive skills demonstrated enhanced remote working capabilities and flexible structures (Peter et al., 2024).

It is essential to acknowledge that technology adoption is significantly influenced by organisational readiness, industry-specific variables, and leadership commitment (Ahmed et al., 2019). Furthermore, the interaction between human and structural capital is essential in this socio-technical process. Although technical solutions can enhance processes, it is the workforce's adaptation, resilience, and competence that ultimately determine the success of digital transformation programs (Tessarini and Saltorato, 2021).

The findings consistently emphasise workforce agility as a driver and a result of effective digital transformation (Sherehiy and Karwowski, 2014; Rani et al., 2024). Agile workforces, defined by proactivity, adaptability, resilience, and constant learning, are more proficient at managing the intricacies of swiftly changing technology environments (Qin and Nembhard, 2015). One significant observation is the positive association between job rotation, cross-training, and increased employee proactivity, especially in SMEs. This corresponds with extensive literature indicating that skill variety enhances employee engagement and provides organisations with the adaptability required to respond to market changes (Holbeche, 2018). However, although workforce agility provides significant advantages, it also presents challenges. Numerous studies emphasised disparities in adaptability across employees, resulting in skill imbalances and increased workplace stress (Braun et al., 2017; Sohrabi et al., 2014). This highlights the vital role of targeted talent management interventions, including continuous learning and wellness initiatives, to address skill deficiencies and enhance employee resilience (Harsch and Festing, 2020). Moreover, the COVID-19 epidemic acted as a catalyst for workforce agility, especially in remote workplaces. Asynchronous communication, virtual collaboration, and self-managed teams have became standard, undermining conventional managerial control and increasing the demand for adaptive and self-motivated personnel (Christodoulou et al., 2024).

The vital role of leadership in facilitating digital transformation is a recurring theme in the examined studies. Transformational leadership styles, characterised by visionary risk tolerance, thinking, and effective communication, consistently correspond with a higher probability of successful digital transformation implementation (Tabrizi et al., 2019; Parveen and Reddy, 2024). Besides leadership, organisational culture is crucial. Cultures that emphasise continual learning, knowledge dissemination, and adaptability foster an environment conducive to digital transformation activities (Slack, 2022). This is essential for promoting workforce agility, as individuals in supportive cultural environments are more

inclined to demonstrate adaptability and resilience (Doeze-Jager-van-Vliet et al., 2019). An intriguing aspect of organisational culture is the development of digital cultures that prioritise data-driven decision-making, innovation, and cross-functional collaboration (Handani, 2024). These cultures not only enable technology adoption but also enhance synergies between structural and relational capital, promoting a more comprehensive and sustainable change (Sherehiy and Karwowski, 2014). The findings also highlight challenges in leadership and cultural transformation. Resistance to change, entrenched hierarchical systems, and isolated departments frequently impede the effective execution of digital transformation initiatives (Goran et al., 2017). Leaders must not only promote technology improvements but also actively remove cultural and institutional barriers that impede progress.

The findings highlight the diversity of digital transformation experiences among industries. Knowledge-intensive industries, like technology and professional services, typically demonstrate higher digital maturity and employee agility (Peter et al., 2024). In contrast, traditional industries such as manufacturing and construction face more significant challenges due to the physical nature of their operations and frequently restrictive legal frameworks (Felstead and Reuschke, 2020). Micro, small, and medium-sized companies MSMEs encounter unique problems. Limited financial resources, smaller talent pools, and inadequate specialised technical experience usually impede the implementation of innovative digital solutions (Ahmed et al., 2019; Beynon et al., 2021). However, the findings indicate that MSMEs employing intangible resources such as intellectual capital and strong relational networks can minimise these limitations and attain substantial digital advancement (Mubarik et al., 2019). The significance of intangible resources in enabling digital transformation is paramount. Human capital, structural capital, and relational capital collectively establish a basis for the flourishing of technology solutions (Marchiori et al., 2022). The findings indicate that human capital serves as the foundation for innovation and flexibility, whilst structural and relational capital offer the frameworks and networks essential for sustained growth.

An essential yet usually overlooked aspect of digital revolution is its ethical and social ramifications. The substantial implementation of AI, big data, and predictive analytics raises concerns regarding data privacy, algorithmic bias, and transparency (Kim and Couper, 2020). Organisations have to deal with complex regulatory frameworks, such as GDPR, while cultivating ethical cultures that emphasise accountability and stakeholder trust (Rani et al., 2024). Employee well-being is also a significant factor. Digital transformation provides flexibility and improved productivity, but it simultaneously presents risks of digital fatigue unclear work-life boundaries, and increased mental health issues (Etheridge et al., 2020). Studies support comprehensive well-being initiatives that include mental health resources, adaptable work arrangements, and frequent assessments to assist employees in navigating digital workplace transformations (Harsch & Festing, 2020). Sustainability is intimately linked to digital transformation plans. Organisations are progressively deploying digital tools to track energy usage,

minimise carbon emissions, and implement circular economy models (Barthel, 2023). Incorporating sustainability into digital initiatives improves environmental performance while bolstering brand reputation and customer loyalty (Abbas et al., 2019).

Limitations and Future Research Directions

This study provides extensive insights into digital transformation and workforce adaptability, however certain limitations warrant attention. The dependence on literature from various businesses and geographical contexts may cause variability in findings, hence restricting generalisability. Secondly, the high proportion of qualitative studies among the examined materials may limit the statistical rigour of specific results. Future research could reduce these constraints by conducting extensive, quantitative studies that investigate causal links between the drivers of digital transformation and organisational success. Furthermore, longitudinal research may yield profound insights into how organisations manage digital transformation over time, especially in reaction to external disruptions like the COVID-19 pandemic. In-depth examination of sector-specific difficulties, ethical implications, and employee welfare in digitally evolving organisations would enhance the discussion. Research on the influence of emerging technologies, like blockchain, augmented reality, and quantum computing, on digital transformation methods provides fertile ground for future studies.

Conclusion

This research provides a comprehensive review of the complex interplay between digital transformation, workforce agility, and intangible resources, offering essential insights for organisations to effectively manage digital transitions. One of the primary findings of the study is that workforce agility is essential for the success of digital transformation initiatives. Employees with adaptability, resilience, and digital proficiency are better equipped to navigate the challenges and opportunities arising from digital breakthroughs. Therefore, organisations must invest in continuous learning and development initiatives that cultivate these competencies. Furthermore, leadership and organisational culture have emerged as essential variables influencing digital transformation pathways. Transformational leaders who promote a culture of innovation and knowledge exchange will significantly enhance organisational agility and digital readiness.

The research highlights the importance of intangible assets for sustaining digital transformation initiatives. Effective application of digital technology requires the strategic management of human, structural, and relational capital inside organisations. Organisations that emphasise knowledge-sharing, cross-functional collaboration, and strategic workforce planning are more likely to attain sustained success in digital transformation efforts. Despite its contributions, the study outlines multiple deficiencies in the current literature, especially regarding the enduring effects of digital transformation on workforce

agility and the influence of industry-specific variables on digital adoption patterns. Future research should focus on longitudinal studies that monitor digital transformation outcomes over time, along with comparison assessments across various organisational contexts. Moreover, additional empirical studies on the efficacy of digital human resource management treatments and leadership methods would yield greater insights into the changing digital environment.

Practical Implications for Practitioners

- **Allocate resources to human capital Digital Proficiency and Agility**: Organisations want to establish continuous learning initiatives to improve employee digital literacy and adaptability. Enhancing skills in AI, data analytics, cloud computing, and digital collaboration technologies will enable employees to adjust to changing digital landscapes.
- **Align Leadership and Culture with Digital Transformation Objectives:** Senior executives must actively cultivate a digital-first culture, prioritising innovation, adaptability, and interdisciplinary collaboration. Promoting transformational leadership and dismantling organisational silos will enhance digital adoption.
- **Exploit Intangible Assets for Competitive Advantage**: Organisations must proactively oversee human, social, and structural capital to optimise the advantages of digital transformation. Establishing strong knowledge-sharing frameworks, digital human resource management (e-HRM), and AI-enhanced decision-making would enhance operational efficiency and ensure long-term sustainability.

These actionable insights can assist firms in effectively integrating digital transformation, workforce agility, and intangible resources to maintain competitiveness in the digital economy.

References

Abbas, J., Mahmood, S., Ali, H., Ali Raza, M., Ali, G., Aman, J., ... & Nurunnabi, M. (2019). The effects of corporate social responsibility practices and environmental factors through a moderating role of social media marketing on sustainable performance of business firms. Sustainability, 11(12), 3434.

Ahmed, H., Rahman, Z., & Paswan, A. (2019). Investigating the role of intellectual capital in digital transformation: A dynamic capabilities perspective. Journal of Intellectual Capital, 20(6), 815–844.

Al-Alawi, A. I., Messaadia, M., Mehrotra, A., Sanosi, S. K., Elias, H., & Althawadi, A. H. (2023). Digital transformation adoption in human resources management during COVID-19. Arab Gulf Journal of Scientific Research, 41(4), 446-461.

Alan, H. (2023). A systematic bibliometric analysis on the current digital human resources management studies and directions for future research. J Chin Human Resource Management, 14(1), 38-59.Alavi,

S., & Abd-Wahab, D. (2013). A review on workforce agility. Research Journal of Applied Sciences, Engineering and Technology, 5(16), 4195–4199.

Alavi, S., Abd. Wahab, D., Muhamad, N., & Arbab Shirani, B. (2014). Organic structure and organisational learning as the main antecedents of workforce agility. International Journal of Production Research, 52(21), 6273-6295.

Alrasheedi, N. S., Sammon, D., & McCarthy, S. (2022). Understanding the characteristics of workforce transformation in a digital transformation context. Journal of Decision Systems, 31(sup1), 362-383.

Al Shobaki, M. J., Naser, S. S. A., El Talla, S. A., & Amuna, Y. M. A. (2017). HRM University Systems and Their Impact on e-HRM. International Journal of Information Technology and Electrical Engineering, 6(3), 5-27.

Appelbaum, S. H., Calla, R., Desautels, D., & Hasan, L. (2017). The challenges of organizational agility (part 1). Industrial and Commercial Training, 49(1), 6-14.

Bozkus, K. (2023). Organizational culture change and technology: Navigating the digital transformation. In Organizational Culture-Cultural Change and Technology. IntechOpen.

Bressanelli, G., Adrodegari, F., Perona, M., & Saccani, N. (2018). Exploring how usage-focused business models enable circular economy through digital technologies. Sustainability, 10(3), 639.

Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. Journal of management, 27(6), 643-650.

Barthel, T. (2023). Digital transformation strategies in SMEs: A multi-sectoral analysis. Journal of Business Strategy, 44(3), 60–75.

Beckers, S. F., Van Doorn, J., & Verhoef, P. C. (2018). Good, better, engaged? The effect of company-initiated customer engagement behavior on shareholder value. Journal of the Academy of Marketing Science, 46, 366-383.

Braun, T. J., Hayes, B. C., DeMuth, R. L. F., & Taran, O. A. (2017). The development, validation, and practical application of an employee agility and resilience measure to facilitate organizational change. Industrial and Organizational Psychology, 10(4), 703-723.

Brown, B., Chui, M., & Manyika, J. (2011). Are you ready for the era of ‘big data’. McKinsey Quarterly, 4(1), 24-35.

Cai, Z., Huang, Q., Liu, H., & Wang, X. (2018). Improving the agility of employees through enterprise social media: The mediating role of psychological conditions. International Journal of Information Management, 38(1), 52-63.

Christodoulou, I., Lavarini, E., Konstantoulaki, K., Rizomyliotis, I., Tuček, D., & Thu, Q. N. (2023). Toward a better microlevel understanding of the use of emerging technologies at work: The interplay between virtual teams, knowledge sharing, and innovation output. IEEE Transactions on Engineering Management, 71, 12826-12838.

Choongik, C. H. O. I. (2024). Adapting to the Unpredictable: Companies' Strategies with Business Continuity in the Pandemic Era. East Asian Journal of Business Economics (EAJBE), 12(1), 23-33.

Cosa, M. (2024). Business digital transformation: strategy adaptation, communication and future agenda. Journal of Strategy and Management, 17(2), 244-259.

Doeze Jager-van Vliet, S. B., Born, M. P., & van der Molen, H. T. (2019). Using a portfolio-based process to develop agility among employees. Human Resource Development Quarterly, 30(1), 39-60.

Fagbemi, T., Dosumu, O., Adigun, R., Nakpodia, F., & Sakariyahu, R. (2025). Resilience and adaptation of third sector organizations (TSOs) during crisis situations: Insights from a West African economy. Financial Accountability & Management, 41(1), 89-115.

Felstead, A., & Reuschke, D. (2023). A flash in the pan or a permanent change? The growth of homeworking during the pandemic and its effect on employee productivity in the UK. Information Technology & People, 36(5), 1960-1981.

Font-Cot, F., Lara-Navarra, P., & Serradell-Lopez, E. (2023). Digital transformation policies to develop an effective startup ecosystem: The case of Barcelona. Transforming Government: People, Process and Policy, 17(3), 344-355.

Goran, J., LaBerge, L., & Srinivasan, R. (2017). Culture for a digital age. McKinsey Quarterly, 3(1), 56-67.

Galanaki, E., Lazazzara, A., & Parry, E. (2019). A cross-national analysis of e-HRM configurations: integrating the information technology and HRM perspectives. In Organizing for Digital Innovation: At the Interface Between Social Media, Human Behavior and Inclusion (pp. 261-276). Springer International Publishing.

Handani, D. (2024). Organizational Culture Change and Adaptation in the Face of Digital Transformation: A Study of Jambi's Banking Sector. Enigma in Economics, 2(2), 110-121

Harsch, K., & Festing, M. (2020). Dynamic talent management capabilities and organizational agility—A qualitative exploration. Human Resource Management, 59(1), 43-61. doi.org/10.1002/sres.2624

Jani, M., Nirav, M., & Chaurasia, S. (2024). Evolution of Workforce Agility: A Bibliometric Analysis. IUP Journal of Organizational Behavior, 23(4).

Beynon, M. J., Munday, M., & Roche, N. (2021). ICT resources and use: examining differences in pathways to improved small firm performance. International Journal of Entrepreneurial Behavior & Research, 27(7), 1798-1818.

Lentjušenkova, O., & Lapina, I. (2016). The transformation of the organization's intellectual capital: from resource to capital. Journal of intellectual Capital, 17(4), 610-631.

Lepri, B., Oliver, N., Letouzé, E., Pentland, A., & Vinck, P. (2018). Fair, transparent, and accountable algorithmic decision-making processes: The premise, the proposed solutions, and the open challenges. Philosophy & Technology, 31(4), 611-627.

Marzo, G., & Scarpino, E. (2016). Exploring intellectual capital management in SMEs: an in-depth Italian case study. Journal of Intellectual capital, 17(1), 27-51.

Meng, Y., Yang, Y., Chung, H., Lee, P.H. and Shao, C., 2018. Enhancing sustainability and energy efficiency in smart factories: A review. Sustainability, 10(12), p.4779.

Mahmood, T. and Mubarik, M.S., 2020. Balancing innovation and exploitation in the fourth industrial revolution: Role of intellectual capital and technology absorptive capacity. Technological forecasting and social change, 160, p.120248.

Marler, J.H. and Parry, E., 2016. Human resource management, strategic involvement and e-HRM technology. The International Journal of Human Resource Management, 27(19), pp.2233-2253.

Marchiori, D. M., Rodrigues, R. G., Popadiuk, S., & Mainardes, E. W. (2022). The relationship between human capital, information technology capability, innovativeness and organizational performance: An integrated approach. Technological Forecasting and Social Change, 177, 121526.

Muduli, A., Verma, S., & Datta, S. K. (2016). High performance work system in India: Examining the role of employee engagement. Journal of Asia-Pacific Business, 17(2), 130-150.

Parveen, S., & Reddy, A. V. (2024). Unravelling the concept of innovative work behaviour: A critical review. Organizational Psychology, 14(1), 109–119.

Peter, M. K., Wuersch, L., Wong, A., & Neher, A. (2024). Digital transformation of work: Swiss MSEs working from home behaviour during COVID-19–pioneers leading the pack. European Business Review, 36(2), 249-270.

Pitafi, A. H., Kanwal, S., & Pitafi, A. (2019). Effect of enterprise social media and psychological safety on employee's agility: Mediating role of communication quality. International Journal of Agile Systems and Management, 12(1), 1–26.

Qin, R., & Nembhard, D. (2015). Workforce agility in operations management. Surveys in Operations Research and Management Science, 20(2), 55–69.

Rani, I. H., Kasali, R., Kusumastuti, R. D., & Hati, S. R. H. (2024). Unlocking continuous organizational agility: proposing a model through the insight from the Indonesian banking context. Cogent Business & Management, 11(1), 2331633.

Santa, R., Sanz, C. M., Tegethoff, T., & Cayon, E. (2023). The impact of emotional intelligence, cross-functional teams and interorganizational networks on operational effectiveness. Journal of Organizational Effectiveness: People and Performance, 10(3), 313-329. https://doi.org/10.1108/joepp-03-2022-0069

Secundo, G., Toma, A., Schiuma, G., & Passiante, G. (2019). Knowledge transfer in open innovation: A classification framework for healthcare ecosystems. Business Process Management Journal, 25(1), 144-163.

Serpa, S., Sá, M. J., & Ferreira, C. M. (2022). Digital organizational culture: Contributions to a Definition and Future Challenges. Academic Journal of Interdisciplinary Studies, 11(4), 22-33. https://doi.org/10.36941/ajis-2022-0095

Sherehiy, B., & Karwowski, W. (2014). The relationship between work organization and workforce agility in small manufacturing enterprises. International Journal of Industrial Ergonomics, 44(3), 466-473.

Sia, S. K., Soh, C., & Weill, P. (2016). How DBS bank pursued a digital business strategy. MIS Quarterly Executive, 15(2).

Slack, R. (2022). The role of organizational culture in digital transformation: A systematic literature review. Journal of Organizational Change Management, 35(4), 703–725.

Storme, M., Suleyman, O., Gotlib, M., & Lubart, T. (2020). Who is agile? An investigation of the psychological antecedents of workforce agility. Global Business and Organizational Excellence, 39(6), 28-38.

Tabrizi, B., Lam, E., Girard, K., & Irvin, V. (2019). Digital transformation is not about technology. Harvard Business Review, 97(6), 2–7.

Tessarini Junior, G., & Saltorato, P. (2021). Workforce agility: A systematic literature review and a research agenda proposal. Innovar, 31(81), 155-167.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. British journal of management, 14(3), 207-222.

Verhoef, P. C., Broekhuizen, T., Bart, Y., et al. (2021). Digital transformation: A multidisciplinary reflection and research agenda. Journal of Business Research, 122, 889–901.

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. Journal of Strategic Information Systems, 28(2), 118–144.

Vishwanath, B., & Vaddepalli, S. (2023). The future of work: Implications of artificial intelligence on hr practices. Tuijin Jishu/Journal of Propulsion Technology, 44(3), 1711-1724.

Zakery, A., & Saremi, M. S. (2021). Knowledge and intellectual capital in internationalizing SMEs, case study in technology-based health companies. Journal of Intellectual Capital, 22(2), 219-242.

Zhang, S., & Suntrayuth, S. (2024). The synergy of ambidextrous leadership, agility, and entrepreneurial orientation to achieve sustainable AI product innovation. Sustainability, 16(10), 4248.