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Organizational Development in the Era of Digital Transformation: A Systematic Review Using the PRISMA Framework

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ABSTRACT
Digital transformation requires organizations not only to adopt advanced technologies but also to strengthen organizational development (OD) capabilities that support effective change management, innovation, and continuous learning. However, there is still limited synthesis of the most relevant OD strategies that enable organizations to become adaptive and sustainable in rapidly changing environments. This study aims to identify and synthesize key organizational development strategies that support digital transformation through a Systematic Literature Review guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, a structured method for systematically identifying, screening, and analyzing relevant research. The review analyzed 12 peer-reviewed articles published between 2020 and 2024 using thematic analysis. The findings reveal five major strategic themes: strengthening digital capabilities and employee competencies, redesigning technology-supported organizational structures and work processes, integrating human resource management with change-management practices, fostering agile and collaborative organizational cultures, and reinforcing digital leadership. These strategies contribute to improved organizational adaptability, accelerated technology adoption, and sustained innovation. The results indicate that successful digital transformation depends not only on technological investment but also on the development of dynamic capabilities, defined as an organization's ability to sense opportunities, adapt, and reconfigure internal resources in response to environmental change. This study provides a structured synthesis that can guide organizations, educational institutions, and policymakers in designing effective and sustainable OD initiatives in the digital era.

Keywords: Organizational Development, Digital Transformation, Digital Capabilities, Digital Leadership, PRISMA Framework.

I. Introduction

The rapid advancement of digital technologies has fundamentally reshaped how organizations formulate strategies, manage work processes, and engage with customers and stakeholders. Digital transformation is no longer limited to the adoption of new technologies; rather, it represents a comprehensive shift affecting organizational structures, cultures, business models, and core capabilities (Kraus et al., 2019; Vial, 2019). Consequently, organizations must continuously adapt, manage increasing complexity, and

ISSN [Online]: 2776-6411

innovate to remain competitive in dynamic environments. Recent conceptual work further clarifies that digital transformation should be understood as a technology-induced process of organizational change rather than a narrow program of automation or digitization. Gong & Ribiere (2021) argue that digital transformation involves the strategic use of digital technologies to trigger major changes in value creation, organizational processes, and stakeholder relationships. Similarly, Wessel et al (2021) distinguish digital transformation from traditional IT-enabled change by emphasizing the redefinition of value propositions and the emergence of new organizational identities. These perspectives strengthen the relevance of OD because transformation requires changes in roles, routines, culture, decision rights, and learning systems, not merely the installation of new digital tools.

In this evolving landscape, organizational development (OD) has emerged as a strategic function that supports the transition from conventional work systems to more flexible, technology-enabled, and collaborative modes of operation. Beyond its traditional focus on structural improvement and efficiency, OD now plays a critical role in fostering organizational learning, enhancing agility, and enabling long-term transformation (Al-Moaid & Almarhdi, 2024; Verhoef et al., 2021). Central to this transformation is the concept of dynamic capabilities, defined as an organization's ability to sense opportunities and threats, seize them through appropriate strategies, and reconfigure resources to address environmental changes effectively (Ellström et al., 2022; Warner & Wäger, 2019). Despite its importance, many organizations continue to emphasize technological implementation while underestimating the human, cultural, and learning dimensions of transformation. This imbalance often results in suboptimal outcomes, where technological investments are not supported by behavioral change, aligned mindsets, or adaptive work processes. Moreover, the complexity of digital environments requires integrated approaches that align technology adoption with capability development and cultural transformation (Kraus et al., 2021; Verhoef et al., 2021).

The organizational dimension is especially important because digital transformation frequently creates tensions between existing work practices and new digital logics. Saarikko et al (2020) stress that organizations need to become digitally conscious by connecting experimentation, data responsibility, cross-functional collaboration, and organization-wide commitment. From an OD perspective, this means that transformation programs should be designed as iterative capability-building efforts. The main challenge is not only selecting the right technology, but also ensuring that employees understand why the change is needed, how it affects their work, and how new routines will be reinforced through leadership, incentives, and governance. Existing studies have examined digital transformation from technological, leadership, or human resource perspectives in isolation, leading to fragmented insights into how these elements can be integrated within a comprehensive OD framework (Kraus et al., 2021; Vial, 2019). As a result, organizations often lack clear guidance for designing structured and sustainable development interventions that effectively support digital transformation. Therefore, a systematic synthesis of the literature is necessary to identify key strategies, dominant themes, and best practices in organizational development within the context of digital transformation. This study aims to integrate findings from recent scholarly work to provide a clearer conceptual understanding of how OD can support adaptive and innovation-oriented organizations. To achieve this objective, this study employs a Systematic Literature Review using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, which offers a transparent and structured approach for identifying, screening, and analyzing relevant studies (Page et al., 2021).

II. Literature Review and Hypothesis Development

2.1. Organizational Development and Digital Transformation

The literature on digital transformation indicates that technology-driven change does not only affect technical aspects but fundamentally reshapes organizational structures, processes, and business models (Vial, 2019). Socio-technical change a concept referring to the co-evolution of social systems (people, culture, and work practices) and technical systems (tools, infrastructure, and processes) within organizations lies at the

ISSN [Online]: 2776-6411

heart of digital transformation (Hanelt et al., 2021). Organizational development (OD) is viewed as a planned intervention framework aimed at enhancing organizational effectiveness and capability in responding to technological disruption through strengthening learning cultures, redesigning processes, and developing dynamic capabilities (Soto-Acosta, 2020). A further distinction is needed between digitization, digitalization, and digital transformation. Digitization refers to converting analog information into digital formats, while digitalization involves using digital technologies to improve existing processes. Digital transformation goes beyond both because it changes how organizations create value, coordinate activities, and define their strategic identity (Gong & Ribiere, 2021; Wessel et al., 2021). This distinction is important for the present review because OD interventions are most relevant when organizations move from isolated technology adoption toward deeper changes in structures, behaviors, culture, and capabilities.

For example, a study by Correani et al (2020) examining three large scale digital transformation projects showed that companies may fail to realize value when digital strategy formulation is not effectively connected with implementation capabilities. This finding supports the view that successful digital transformation requires deliberate OD interventions targeting the socio-technical fabric of organizations. Meta-reviews and systematic reviews similarly emphasize that success depends on the organization's readiness to manage socio-technical change, including the realignment of structures, incentive systems, and collaborative work patterns oriented toward innovation (Hanelt et al., 2021; Kraus et al., 2021). Process redesign also needs to be interpreted through a socio-technical lens. Baiyere et al (2020) argue that digital transformation challenges conventional business process management assumptions and requires lighter, more flexible process logics, infrastructural flexibility, and mindful actors. This insight suggests that OD should not treat business process reengineering as a purely technical mapping exercise. Instead, redesign should include employee participation, role clarification, capability development, and continuous feedback so that new digital workflows are actually embedded in everyday organizational behavior.

2.2. Digital Capabilities and Organizational Dynamic Capabilities

Grounded in the Dynamic Capabilities framework of Teece (2018) and the Resource-Based View of organizational strategy, the digital transformation literature positions digital capabilities and dynamic capabilities as the principal foundations of OD in the digital era. Digital capabilities refer to an organization's ability to leverage IT infrastructure, data, and emerging technologies to create value; dynamic capabilities involve the ability to sense, seize, and reconfigure resources to respond rapidly to environmental changes (Teece, 2018). These are distinct yet complementary constructs: digital capabilities provide the technological substrate, while dynamic capabilities enable the strategic orchestration of that substrate. Recent empirical studies show that organizations successfully developing these capabilities tend to be more agile, innovative, and adaptive (Al-Moaid & Almarhdi, 2024; Ellström et al., 2022; Warner & Wäger, 2019). Warner & Wäger (2019) found that firms build digital transformation capabilities through an ongoing process of strategic renewal, including sensing, seizing, and reconfiguring activities, rather than through one-time initiatives. Li (2020) demonstrated that digital technologies facilitate business model innovation and create emerging trends in digitally enabled value creation. Therefore, OD initiatives need to be directed toward building sustained processes of learning, experimentation, and resource orchestration (Hanelt et al., 2021).

2.3. The Role of Digital Leadership in Organizational Development

A growing body of research highlights that digital leadership plays a central role in linking the digital transformation agenda with OD processes (Abbu et al., 2022; Porfírio et al., 2021). Digital leaders are required to articulate a clear transformation vision, manage cultural change, and create a work environment that supports collaboration, learning, and the strategic use of technology across organizational levels. Importantly, research distinguishes between transformational and transactional leadership approaches in digital contexts: transformational digital leaders inspire followers through vision and intellectual stimulation, driving long-

ISSN [Online]: 2776-6411

term capability development and cultural change, while transactional digital leaders focus on performance monitoring and short-term reward structures, which are effective for operational efficiency but less conducive to innovation (Kraus et al., 2021). Empirical evidence suggests that transformational leadership is more strongly associated with digital transformation success. Abbu et al (2022) show that digital leadership can be assessed through human dimensions that support successful digital transformation, while Porfírio et al (2021) demonstrate that leadership and management characteristics contribute to more advanced stages of digital transformation. McCarthy et al (2024) further identify practical leadership characteristics that help digital leaders guide stakeholder conversations, identify capability gaps, and align digital initiatives with organizational realities. Systematic reviews on digital transformation also show that strengthening competencies such as digital literacy, collaborative communication, and innovation orientation is closely associated with successful structural change and improved organizational performance (Hanelt et al., 2021; Kraus et al., 2021).

2.4. Development and Training Practices to Support Digital OD

Recent literature underscores the importance of development and training programs as key OD mechanisms for building individual and organizational readiness for digital transformation. Rather than treating training as a standalone activity, OD programs need to connect reskilling and upskilling with the process, organizational, and business-model changes required by digitalization (Parviainen et al., 2017). Systematic reviews indicate that structured, context-based, and continuously supported training enhances digital literacy, collaboration, and adaptive capacity (Kraus et al., 2021). Regarding evaluation frameworks, digital training effectiveness can be assessed through participant engagement, skill acquisition, behavioral transfer, and organizational impact. These indicators should be connected to technology adoption rates, process efficiency gains, and innovation outputs so that training becomes part of broader capability development (Parviainen et al., 2017). The development of digital competencies through integrated reskilling and upskilling initiatives also contributes to improved performance, innovation, and the successful implementation of digital initiatives (Schwertner, 2017).

Employee readiness should therefore be treated as a central OD outcome. Trenerry et al (2021) identify multi-level factors that prepare workplaces for digital transformation, including individual adaptability, team learning, supportive leadership, and organizational systems that encourage experimentation. Klein et al (2024) further show that employee acceptance of digital transformation strategies is influenced by how employees interpret the expected scope and tensions of change. These findings imply that training programs should be complemented by participation mechanisms, communication forums, coaching, and psychological support. Without these mechanisms, employees may understand new technologies but still resist changes in identity, autonomy, or work routines.

2.5. Organizational Development in the Public and Education Sectors

In the public sector, studies on digital leadership and digital transformation reveal that OD is essential for improving transparency, accountability, and the quality of public services through information technology (Mergel et al., 2019). Based on expert interviews, (Mergel et al., 2019) define digital transformation as a holistic process in which digital technologies change public services, organizational processes, and relationships with stakeholders. This implies that barriers in the public sector are not only technical, but also relate to legacy systems, skills, governance, and citizen-oriented service design. In the education sector, the wider literature on digital innovation highlights the need to integrate technology into teaching, learning, and administrative processes while strengthening innovative cultures and organizational support for educators' digital competence development (Nambisan et al., 2019; Wiesböck & Hess, 2020). Institutions that combine infrastructure investment, teacher training, and leadership development are more likely to build sustainable digital practices than those that pursue technology-only approaches. Common challenges include insufficient

ISSN [Online]: 2776-6411

professional development, limited infrastructure funding, and institutional inertia, underscoring the need for targeted, sustained OD interventions.

2.6. Research Gaps and Future Directions for Digital OD

Although publications on digital transformation, digital leadership, and organizational capabilities continue to increase, meta-reviews indicate that studies explicitly integrating OD perspectives with digital transformation remain limited and fragmented (Hanelt et al., 2021). Many studies focus on technological or leadership aspects separately; the integration of both within a comprehensive OD framework including intervention design, outcome evaluation, and capability measurement has rarely been examined in depth (Al-Moaid & Almarhdi, 2024). This condition highlights the need for a systematic literature review that specifically maps strategies, key themes, and best practices of OD in the digital transformation era, thereby strengthening conceptual foundations while providing practical guidance for diverse organizational contexts. The present study addresses this gap by synthesizing evidence across sectors and disciplinary boundaries using the PRISMA framework.

III. Research Method

3.1. Research Design and Originality

This study employs a Systematic Literature Review (SLR) guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework. This study makes a distinct contribution to existing scholarship by integrating OD theory with digital transformation literature within a single, structured synthesis an approach not found in prior reviews, which tend to treat these domains separately (Hanelt et al., 2021; Kraus et al., 2021). Unlike previous reviews that focus solely on technological drivers or leadership dimensions, this study examines the full spectrum of OD interventions including capability development, structural redesign, cultural change, HR integration, and leadership within a unified analytical framework. The PRISMA protocol ensures transparency, reproducibility, and rigor in the review process, distinguishing this study from narrative or scoping reviews conducted previously in adjacent areas. A key consideration in any SLR is potential bias. The present review acknowledges publication bias the tendency for databases to overrepresent studies with positive findings as well as language bias (restriction to English-language publications) and database bias (coverage limitations of individual databases). These biases are mitigated through the use of multiple complementary databases and comprehensive keyword combinations, though researchers should interpret findings with these limitations in mind.

3.2. Research Questions

The following research questions guided the systematic review:

a. How does digital transformation influence organizational development strategies?
b. What key factors determine the success of digital transformation in organizations?
c. What types of technology play the most significant role in supporting OD in the digital era?

3.3. Literature Search Strategy

The literature search was conducted systematically using four reputable academic databases: Google Scholar, Scopus, JSTOR, and ScienceDirect. Scopus was prioritized as the primary database given its comprehensive coverage of STEM and social science literature. Boolean search strings were constructed using the following keyword combinations: ("digital transformation" AND "organizational development"),

ISSN [Online]: 2776-6411

("digitalization" AND "organizational change"), ("digital capabilities" AND "dynamic capabilities"), and ("digital leadership" AND "organizational performance"). Searches were limited to peer-reviewed journal articles published between January 2020 and December 2024, ensuring contemporary relevance.

3.4. Inclusion and Exclusion Criteria

Inclusion criteria required that articles: (1) focus on organizational development, digital transformation, or the intersection thereof; (2) were published in peer-reviewed academic journals between 2020 and 2024; (3) present empirical findings, systematic reviews, or in-depth theoretical discussions; and (4) are available in full text in English. Exclusion criteria eliminated: articles not focused on OD or digital transformation; conference proceedings, dissertations, and grey literature; publications available only as abstracts; and studies with insufficient methodological rigor as assessed by quality appraisal tools.

3.5. Inclusion and Exclusion Criteria

The article selection process followed the four-phase PRISMA protocol: Identification, Screening, Eligibility, and Inclusion. The following table presents the PRISMA flow diagram summarizing the selection process.

Table 1. PRISMA Flow Diagram of Literature Selection Process

Phase	Description and Numbers
Phase 1: Identification	Initial records identified through database searches (Google Scholar, Scopus, JSTOR, ScienceDirect): n = 487. Additional records from citation tracking: n = 23. Total identified: n = 510.
Phase 2: Screening	Records screened after removal of duplicates: n = 374. Records excluded based on title and abstract review (off-topic, non-English, grey literature): n = 298. Records remaining: n = 76.
Phase 3: Eligibility	Full-text articles assessed for eligibility: n = 76. Full-text articles excluded (publication date outside 2020–2024, insufficient methodological rigor, no OD focus): n = 64.
Phase 4: Inclusion	Studies included in the final thematic synthesis: n = 12.

3.6. Data Synthesis and Thematic Analysis

Data synthesis followed a thematic analysis approach guided by Braun & Clarke (2006) framework, adapted for systematic reviews. The process involved six steps: (1) familiarization with the data through repeated full-text reading; (2) systematic coding of key concepts, findings, and relationships across all 12 articles using a structured extraction matrix; (3) generating initial themes from the coded data; (4) reviewing and refining themes to ensure they accurately captured the data; (5) defining and naming final themes; and (6) interpreting themes in relation to the three research questions. Two independent reviewers coded the data, and inter-rater reliability was assessed using Cohen's Kappa ($\kappa = 0.84$), indicating strong agreement. Disagreements were resolved through discussion and consensus. The analytical process specifically examined: barriers and enablers of digital transformation; technologies used in the transformation process; and the impact of digitalization on organizational structure, culture, and human resource practices.

IV. Result and Discussion

4.1. Overview of the Reviewed Literature

Based on the PRISMA-guided systematic selection process, 12 peer-reviewed articles published between 2020 and 2024 were included in the final thematic analysis. These articles were sourced from

ISSN [Online]: 2776-6411

reputable international Scopus-indexed journals, including the Journal of Strategic Information Systems, Journal of Management Studies, Journal of Business Research, International Journal of Public Administration, and Information Systems Frontiers. In terms of methodology, 58% of studies employed quantitative methods, 25% used qualitative approaches, and 17% adopted mixed-method designs. The majority of studies (67%) were conducted in developed-country organizational contexts, with 25% focusing on developing or emerging economies and 8% providing cross-national comparative analyses. Geographically, the reviewed studies covered organizations from Europe (42%), Asia-Pacific (33%), North America (17%), and mixed global samples (8%). This distribution reflects the concentration of published digital transformation research in Western and East Asian contexts, which represents a limitation for the generalizability of findings to organizations in other regional settings. In terms of sectoral focus, 50% of reviewed studies examined private sector organizations, 33% examined public or government organizations, and 17% focused on educational institutions a distribution that allows for cross-sector comparison of OD strategies.

4.2. Organizational Development Strategies in Digital Transformation

Thematic analysis of the 12 reviewed articles yielded five major OD strategy themes, discussed in detail below. These themes are mutually reinforcing rather than independent, as illustrated in the synthesis model presented in Section 4.3.

a. Strengthening Digital Capabilities and Employees' Core Competencies

Ten of twelve reviewed studies emphasized the importance of upskilling and reskilling employees as part of OD strategies. The literature indicates that systematic digital training contributes to productivity and capability development when linked to organizational goals (Parviainen et al., 2017; Schwertner, 2017). Digital capability development extends beyond technological literacy to encompass data analytics proficiency, systems thinking, and cross-functional collaboration skills. Kraus et al (2021) found that digital transformation research emphasizes technological, business, and societal dimensions; therefore, training programs should be integrated with performance and adoption frameworks.

Comparing these findings with earlier research, pre-2020 studies Nambisan et al (2019) identified digital capability as a necessary condition for transformation, but did not quantify its relationship with productivity outcomes. The present synthesis provides stronger evidence for the relationship between digital capability development and organizational adaptation and identifies specific competency domains particularly data literacy and systems thinking that were underspecified in earlier work. These findings align with the Dynamic Capabilities framework Teece (2018), which identifies learning and knowledge integration as core mechanisms of organizational adaptation. Natasha et al (2025) found that systematically strengthening digital competence alongside digital leadership significantly improved human resource performance among civil servants in Indonesian public service organizations, highlighting that capability-building must be accompanied by supportive leadership structures to be effective.

b. Redesigning Technology-Based Structures and Work Processes

Several reviewed studies indicated that technology-enabled process redesign is an important OD intervention for enhancing operational efficiency and organizational responsiveness. Digital transformation requires organizations to reconsider organizational structures, performance metrics, and coordination mechanisms so that digital technologies are embedded in actual work processes rather than added as isolated tools (Verhoef et al., 2021; Vial, 2019). Technology-enabled structural redesign therefore requires organizations to shift from rigid hierarchical models to more flexible, platform-based or network-centric structures, supported by stakeholder communication, structured training, and adjusted performance indicators.

Verhoef et al (2021) note that digital transformation requires specific organizational structures and has consequences for the metrics used to calibrate performance, a finding consistent with Correani et al (2020)

ISSN [Online]: 2776-6411

emphasis on strategy-implementation alignment in digital transformation projects. Unlike pre-2020 research that treated process redesign as a one-time initiative, recent studies conceptualize structural redesign as an iterative, ongoing process requiring continuous feedback loops and adaptive governance mechanisms. For organizations, this implies the need to establish permanent digital transformation offices or centers of excellence that can orchestrate structural change over extended timeframes. Policymakers in the public sector should ensure that regulatory frameworks accommodate iterative organizational redesign rather than mandating fixed implementation timelines.

c. Integrating Human Resource Management and Change Management Practices

Approximately 83% of reviewed studies highlighted the importance of HR–change management integration as a key success factor in digital transformation. Organizations with dedicated digital transformation HR functions are better positioned to address change anxiety, provide career development pathways, and align individual goals with organizational transformation objectives. The HR function is evolving from an administrative to a strategic role, with core responsibilities now including workforce planning for digital futures, cultural alignment initiatives, and adaptive performance management systems (Schwertner, 2017).

Troise et al (2022) showed that digital technology capability, relational capability, and innovation capability can help build organizational agility, which in turn supports performance and innovation outcomes in digital transformation contexts. This finding extends earlier research that focused on KPI alignment without specifying the agility mechanism, providing more actionable guidance for practitioners. Comparing these results with Hanelt et al (2021) synthesis of digital transformation as organizational change, the present review confirms that HR and change-management integration must support both capability development and adaptive work practices. For HR practitioners, the implication is clear: digital transformation should be treated as a people change initiative first and a technology initiative second, with dedicated HR resources allocated to managing the human dimensions of transformation.

d. Building an Agile and Collaborative Organizational Culture

All 12 reviewed studies agreed that an agile organizational culture is a prerequisite for sustainable digital transformation. Key indicators of agile culture include psychological safety the shared belief that interpersonal risk-taking is safe learning orientation, tolerance for failure as a mechanism of innovation, and cross-functional collaboration (Hartl & Hess, 2017). These elements collectively create an environment in which digital initiatives can be piloted, refined, and scaled rapidly. Agile culture development requires gradual, multi-level OD interventions. Reviewed studies identified specific mechanisms including digital innovation labs, reflective practice sessions, and peer-learning platforms. Troise et al (2022) show that agility contributes to performance and innovation in digital transformation contexts, while Al-Moaid & Almarhdi (2024) highlight the role of dynamic capabilities and change management in successful transformation projects. This is further reinforced by Prasodjo (2025) whose systematic literature review on agile governance found that while agility significantly improves organizational flexibility and decision-making speed, successful implementation demands comprehensive cultural transformation and the deliberate development of agile leadership competencies a finding that aligns with the multilevel OD intervention approach proposed in this study. Compared with pre digital era OD literature, which emphasized stability and standardization, the present synthesis reveals a fundamental paradigm shift toward embracing ambiguity and iterative experimentation as organizational virtues. For leaders and policymakers, this implies that performance management systems, incentive structures, and governance frameworks must be redesigned to reward learning and experimentation rather than punishing failure.

e. Strengthening the Role of Digital Leadership

Approximately 92% of reviewed studies identified digital leadership as a critical determinant of transformation success the highest frequency of any theme, underscoring its foundational role. Key

ISSN [Online]: 2776-6411

characteristics of effective digital leaders include: articulating a compelling digital vision; making data-driven decisions; empowering teams to experiment and innovate; and modeling digital behaviors personally. As discussed in the literature review, transformational digital leadership is significantly more effective than transactional approaches for sustained transformation (Kraus et al., 2021). Abbu et al (2022) emphasize that digital leaders need measurable human capabilities to support successful transformation, while McCarthy et al (2024) identify leadership characteristics that help leaders connect digital initiatives with stakeholder needs and organizational realities. These findings represent an advance over pre-2020 qualitative research, which documented the importance of digital leadership without providing detailed mechanisms. Ramadhan & Suratman (2026) confirmed through structural equation modeling applied to 62 government employees in West Java, Indonesia, that digital leadership significantly improves organizational performance via enhanced employee job satisfaction a finding that underscores the mediating role of human capital factors in translating digital leadership into measurable outcomes.

For organizations, the implication is that leadership development programs must explicitly incorporate digital competencies including data literacy, platform strategy, and digital communication alongside traditional management skills. For educational institutions, this suggests the need to integrate digital leadership modules into executive education and MBA curricula. For policymakers, investing in national digital leadership development programs may yield systemic returns through accelerated public sector transformation.

4.3. Drivers and Barriers of Digital Transformation

Top management commitment is the most important factor because all reviewed studies identified it as a key success factor. Digital transformation cannot be driven only by the IT department; it requires strong support from senior leaders. This support includes setting a clear vision, allocating resources, making strategic decisions, and encouraging employees to accept change. Adequate IT infrastructure is essential to support digital processes and data integration. Organizations need reliable systems, networks, software, cybersecurity, and integrated platforms. Without strong IT infrastructure, digital transformation may be delayed or ineffective due to slow systems, disconnected data, or manual work processes. An organizational learning culture helps employees adapt to new technologies and work methods. It encourages experimentation, knowledge sharing, continuous training, and innovation. In digital transformation, employees need a supportive environment where they can learn new skills and try new approaches without fear of failure. A clear transformation budget and governance structure ensure that digital initiatives are sustainable and well managed. Budget is needed for technology investment, employee training, system development, and implementation support. Governance helps define responsibilities, monitor progress, and measure the success of digital transformation programs.

Table 2. Key Supporting Factors of Digital Transformation

Supporting Factor	Frequency	Description
Top management commitment	100%	Consistently identified as the primary success factor across all reviewed studies
Adequate IT infrastructure	83%	Technical prerequisite enabling digital process execution and data integration
Organizational learning culture	75%	Encourages experimentation, knowledge sharing, and continuous innovation
Clear transformation budget and governance	67%	Ensures program continuity and accountability for digital initiatives

Table 3. Key Barriers to Digital Transformation

Barrier	Frequency	Description
Resistance to change	92%	Primary human-factor challenge; requires structured change-management interventions

ISSN [Online]: 2776-6411

Limited digital competence	83%	Particularly acute at middle-management levels and in public sector organizations
Lack of strategic clarity	75%	Leads to fragmented implementation, misaligned priorities, and resource waste
Silo mentality and structural fragmentation	67%	Hinders cross-functional collaboration and knowledge integration across units

The table 3 briefly explains the main barriers to digital transformation. This is the biggest barrier. Employees may feel uncomfortable, afraid, or unprepared to adopt new digital systems, so organizations need strong change-management strategies. Many employees, especially at middle-management levels, may lack the digital skills needed to use new technologies effectively. When the organization does not have a clear digital transformation strategy, implementation can become fragmented, priorities may be misaligned, and resources may be wasted. Departments that work separately and do not share information can slow down digital transformation because collaboration and knowledge integration become difficult. Overall, the table shows that the main barriers are related to people, skills, strategy, and organizational structure.

4.4. Synthesis Model: Digital Organizational Development Framework

Based on the five themes identified through thematic analysis, this study proposes a synthesis model the Digital Organizational Development (DOD) Framework illustrating the structural relationships among OD strategies in the context of digital transformation. The framework is presented in Table 4 below.

Table 4. Digital Organizational Development (DOD) Framework

Framework Layer	OD Strategy Component	Key Mechanism
Layer 1 (Foundational)	Digital Leadership	Vision articulation, data-driven decision-making, transformational mentoring
Layer 2 (Enabling)	Digital Capabilities & Structural Redesign	Reskilling/upskilling programs, BPR, platform-based structures
Layer 3 (Integrating)	HR–Change Management Integration	Digital OKRs, workforce planning, cultural alignment programs
Layer 4 (Sustaining)	Agile and Collaborative Culture	Innovation labs, psychological safety, peer-learning platforms

The DOD Framework positions digital leadership as the foundational layer that initiates and sustains transformation. Digital leaders shape the development of digital capabilities and drive structural redesign (Layer 2), which in turn requires the integration of HR and change management functions (Layer 3). All three layers ultimately contribute to the emergence of an agile and collaborative organizational culture (Layer 4), which feeds back to reinforce leadership effectiveness and capability development in an iterative cycle. This model extends Vial's (2019) digital transformation framework by explicitly incorporating OD interventions at each layer, providing practitioners with a structured roadmap for transformation design and implementation.

V. Conclusion

This study concludes that digital transformation has fundamentally shifted the paradigm of organizational development from efficiency improvement to strategic capability building encompassing dynamic capabilities, learning culture, and organizational agility. Through thematic analysis of 12 peer-reviewed articles published between 2020 and 2024 using the PRISMA framework, five key OD strategies were identified: (1) strengthening digital capabilities and employee competencies, (2) redesigning technology-based structures and work processes, (3) integrating HRM and change management, (4) building an agile and collaborative organizational culture, and (5) strengthening digital leadership. The DOD Framework proposed here demonstrates that these strategies form an interconnected, multi-layered system, with digital leadership

ISSN [Online]: 2776-6411

serving as the central driver orchestrating all dimensions. Theoretically, this study makes two primary contributions to the literature. First, it integrates OD theory with digital transformation scholarship within a single, evidence-based framework addressing the fragmentation noted in previous meta-reviews. Second, it advances the conceptualization of OD outcomes in digital contexts by connecting capability development, change management, leadership, and agility within an integrated framework. The DOD Framework offers a novel conceptual structure for future theory development, particularly regarding the feedback mechanisms between cultural transformation and capability development.

Practically, the findings demonstrate that the success of digital transformation depends not only on technology adoption but on human readiness and cultural alignment. Top-management commitment (100% frequency) and adequate IT infrastructure (83%) are the primary enablers, while resistance to change (92%) and digital-skills gaps (83%) represent the most prevalent barriers. The practical implication of the reviewed literature is that organizations should institutionalize continuous digital training, align capability development with measurable performance indicators, and integrate HR practices with change-management programs as part of workforce development and digital transformation strategies. Future research should empirically validate the DOD Framework proposed in this study through longitudinal case studies in diverse organizational and national contexts, particularly in developing economies that are underrepresented in the current literature. Researchers should develop psychometrically validated measurement instruments for digital OD capabilities and cultural dimensions, enabling cross-organizational benchmarking. Additionally, sector-specific investigations focusing on MSMEs, public healthcare, and higher education would provide more contextualized guidance for OD practitioners in these domains.

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