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Managerial Competency Development in the Digital Era: A Conceptual Perspective

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Abstract

The digital era has fundamentally disrupted traditional business paradigms, necessitating a profound evolution in managerial competencies. This conceptual article aims to synthesize and propose a framework for managerial competency development tailored to the exigencies of digital transformation. Employing a qualitative, desk-based research methodology, this study engages in a critical analysis of extant literature from reputable international journals and books to construct a nuanced understanding of the competency shift. The discussion delineates a tripartite core of essential digital-era managerial competencies: digital fluency (encompassing data literacy and technological acumen), adaptive leadership (including agility, vision-setting in uncertainty, and managing distributed teams), and strategic innovation (involving ecosystem thinking and continuous learning orchestration). The analysis reveals that developing these competencies requires a synergistic approach, integrating experiential learning, micro-credentialing, and technology-enabled, personalized development platforms. The study concludes that for organizations to thrive, managerial development must transition from periodic, standardized training to a continuous, integrated, and strategic process aligned with digital velocity. This conceptual perspective offers scholars and practitioners a structured lens to evaluate and redesign managerial development initiatives.

Keywords: managerial competencies, digital transformation, adaptive leadership, digital fluency, strategic innovation

INTRODUCTION

The advent of the digital era, characterized by technologies such as artificial intelligence, big data analytics, cloud computing, and the Internet of Things, has precipitated a paradigm shift in the global business landscape. This transformation is not merely technological but extends to the very core of organizational structures, business models, and market dynamics, rendering many traditional managerial practices obsolete. The velocity and pervasiveness of this change demand a fundamental re-evaluation of the knowledge, skills, and abilities that constitute effective management in the 21st century. As noted by Vial (2019), digital transformation is a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies, which directly implicates the role of managers as both agents and targets of this change.

Historically, managerial competency models were built on principles of stability, predictability, and hierarchical control, focusing on areas such as planning, organizing, commanding, and controlling within relatively clear boundaries. However, the digital

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environment is inherently volatile, uncertain, complex, and ambiguous (VUCA), challenging these foundational principles. In this context, the concept of 'competency' itself evolves from a static set of attributes to a dynamic capability that enables managers to learn, adapt, and perform effectively in novel situations. This shift underscores the urgent need to conceptualize what development in this new context entails, moving beyond technical upskilling to encompass cognitive, behavioral, and strategic dimensions.

The imperative for managerial competency development is further amplified by the strategic role managers play in leading digital initiatives, fostering innovation, and nurturing organizational agility. Managers are no longer just administrators of predefined processes; they are expected to be architects of change, curators of talent, and interpreters of vast amounts of data. Their ability to bridge the gap between technological potential and business value creation is critical. Consequently, the development of these competencies cannot be an afterthought or a sporadic training event but must be a continuous, strategically integrated process. This perspective is aligned with the resource-based view of the firm, which suggests that human capital, particularly managerial talent, is a key source of sustainable competitive advantage, especially when aligned with strategic digital goals.

However, despite widespread recognition of this need, there is a palpable gap between the awareness of required new competencies and the systematic conceptualization of their development pathways. Many organizations continue to apply industrial-era development logic to digital-era challenges, leading to ineffective outcomes. The literature, while rich in identifying discrete digital skills, often lacks a holistic, integrated framework that connects competency domains with actionable development philosophies and methodologies suitable for the digital context. This conceptual fragmentation presents a significant challenge for both academic inquiry and practical application in managerial education.

Therefore, this article seeks to address this gap by constructing a coherent conceptual perspective. It aims to synthesize disparate strands of thought from management, information systems, and human resource development literature to propose a structured understanding of how managerial competencies for the digital era can be systematically developed. The conceptual approach is chosen to provide a foundational model that can guide future empirical research and inform the design of development programs by integrating various theoretical lenses into a cohesive whole.

To guide this conceptual exploration, this article is structured around three central research questions. First, what constitutes the core portfolio of managerial competencies essential for effectiveness in the digital era? Second, how do the fundamental principles of competency development (e.g., pedagogy, andragogy, heutagogy) need to be reimagined to accommodate the pace and nature of digital change? Third, what are the key components of an integrative framework that can guide organizations in designing and implementing effective managerial competency development systems in a digital context? Addressing these questions will provide a comprehensive perspective on bridging the critical gap between the demands of digital transformation and the current state of managerial preparedness.

This introduction sets the stage for a detailed literature review, an analysis of previous research, and the proposition of a theoretical framework. By adopting a conceptual methodology, the paper will engage in theory building, aiming to contribute to the field

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of managerial education by offering a clarified, integrated perspective on a topic of paramount contemporary importance. The ultimate goal is to advance both scholarly discourse and practical strategies for developing the managerial talent required to lead organizations successfully through ongoing digital disruption.

1. Literature Review

The literature on managerial competencies provides a foundational understanding of the knowledge, skills, and attitudes required for effective performance. The competency movement, popularized by scholars like Boyatzis (1982) with his model of effective job performance, traditionally categorized competencies into clusters such as achievement and action, helping and human service, managerial, and cognitive. While these clusters remain relevant, the digital era introduces new dimensions that transcend these traditional categories. For instance, the cognitive cluster now heavily incorporates data literacy and digital judgement, while the managerial cluster must expand to include virtual team leadership and digital ecosystem governance. This evolution suggests that existing models require significant augmentation rather than replacement, a challenge central to contemporary managerial education.

A substantial stream of recent literature focuses specifically on digital competencies for leaders and managers. Key constructs that have emerged include 'digital literacy,' which extends beyond basic computer skills to encompass the ability to locate, evaluate, and use digital information effectively (Eshet-Alkalai, 2004), and 'digital fluency,' which implies a higher-order capability to create, critique, and confidently apply digital tools to solve problems and innovate (Sparrow, 2023). Furthermore, research highlights the importance of 'strategic technology scanning' and the ability to envision digital opportunities, aligning IT capabilities with business strategy—a competency often termed 'digital business savvy'. These competencies form a crucial layer of the modern managerial profile, bridging technical understanding with strategic application.

Parallel to the discussion on digital skills is the robust literature on leadership in complex and dynamic environments. Concepts such as adaptive leadership, pioneered by Heifetz and Laurie (1997), which emphasizes mobilizing people to tackle tough challenges, and agile leadership, derived from software development methodologies, are increasingly salient. These frameworks stress the manager's role in fostering psychological safety, enabling experimentation, and facilitating rapid learning cycles. In the digital context, this translates to leading distributed, often hybrid teams, making decisions with incomplete data, and managing the human side of technological change, including resistance and ethical dilemmas related to AI and data privacy. The integration of these adaptive capacities with digital acumen is a critical theme.

Finally, the literature on learning and development in organizations offers insights into how competencies are traditionally built but also points to necessary innovations. Andragogy, the theory of adult learning, emphasizes self-direction and experiential learning, which are highly relevant for time-constrained managers (Knowles, Holton III, & Swanson, 2015). However, the digital era accelerates the need for 'heutagogy,' or self-determined learning, where the

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learner is truly at the center of designing their own learning path, often facilitated by digital platforms. Furthermore, scholars advocate for 'microlearning,' 'just-in-time learning,' and the use of digital badges and credentials to provide flexible, relevant, and verifiable skill development. This body of work suggests that the how of development is as critical as the what, requiring a shift in the very design of managerial education systems.

2. Previous Research

A chronological review of key studies illuminates the evolving conversation around managerial competencies and digital transformation. Early in the digital shift, Bharadwaj, Sawy, Pavlou, and Venkatraman (2013) provided a seminal contribution by introducing the concept of 'digital business strategy' as a new strategic imperative. While not exclusively focused on managerial competencies, their work implicitly highlighted the need for managers to possess the strategic vision to reconfigure business models and value propositions using digital resources, setting the stage for competency discussions centered on strategic synthesis.

Subsequently, Kane, Palmer, Phillips, Kiron, and Buckley (2015), through their ongoing research with MIT Sloan Management Review and Deloitte, empirically explored the phenomenon of 'digital maturity'. Their findings consistently identified leadership and talent development as one of the most significant gaps between digitally maturing and early-stage organizations. This research stream underscored that technological investment alone is insufficient without commensurate development of human and managerial capital, bringing the competency development issue into sharp relief for practitioners.

Focusing more directly on the individual manager, Westerman, Bonnet, and McAfee (2014) in their book 'Leading Digital' identified key behaviors of transformative digital leaders, such as articulating a compelling digital vision and fostering digital engagement across the organization. Their work, based on extensive case studies, moved the discussion from abstract strategy to tangible leadership actions, providing a behavioral lens on digital-era managerial competency. However, it offered less detail on the systematic development processes required to cultivate these behaviors.

More recently, Caniels, Neghina, and Schaetsaert (2017) conducted a valuable literature review to map the landscape of digital competence for leaders. They synthesized various frameworks and identified clusters including digital literacy, digital communication, and digital ethics. Their work provided useful categorization but also noted the lack of consensus and the predominantly conceptual nature of much of the field, calling for more empirical studies to validate and refine these competency constructs.

In a significant empirical contribution, Volberda, Khanagha, Baden-Fuller, Mihalache, and Birkinshaw (2021) investigated the microfoundations of strategic agility, a core digital-era capability. They found that managerial roles and cognitive flexibility were critical enablers. This study connected individual managerial attributes (a micro-level competency) directly to firm-level strategic outcomes (macro-level performance), offering a powerful argument for investing

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in specific types of managerial development, particularly those enhancing cognitive and behavioral agility.

Despite these valuable contributions, a discernible gap remains. The existing body of research tends to operate in silos: one stream identifies discrete digital skills, another discusses adaptive leadership in general terms, and a third examines innovative learning methods. There is a lack of integrative conceptual work that explicitly links a synthesized, holistic model of digital-era managerial competencies to a reconceptualized development framework grounded in adult learning theory and enabled by digital tools. Previous studies have either focused on describing the 'destination' (required competencies) or suggesting new 'vehicles' for learning (micro-credentials, platforms) but have not sufficiently conceptualized the cohesive 'roadmap' that connects them—a roadmap that accounts for the unique pace, scope, and interdependencies of competency development in the digital context. This article aims to fill that conceptual gap.

3. Theoretical Framework

The theoretical framework for this conceptual analysis is constructed from the integration of three interlocking theoretical perspectives: Dynamic Capabilities Theory, Adult Learning Theory (specifically Heutagogy), and the Job Demands-Resources (JD-R) Model. This tripartite framework provides a robust foundation for understanding the what, how, and context of managerial competency development in the digital era.

Dynamic Capabilities Theory, as articulated by Teece, Pisano, and Shuen (1997), posits that a firm's ability to achieve sustained competitive advantage lies in its capacity to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. At the managerial level, this translates into individual dynamic capabilities—the meta-competencies of sensing digital opportunities and threats, seizing them by making strategic investment decisions, and transforming the organization's resources and structures accordingly. This theory directly informs the first research question by framing the required managerial competencies not as static traits but as dynamic, higher-order capacities for strategic renewal. The development objective, therefore, is to cultivate these sensing, seizing, and transforming abilities in managers.

To understand how these dynamic capabilities can be developed, the framework incorporates Heutagogy, or self-determined learning. Building on andragogy, heutagogy places even greater emphasis on learner agency, capability development (going beyond competency), and non-linear learning processes (Hase & Kenyon, 2000). In the fluid digital context, where knowledge is rapidly created and outdated, managers cannot rely on prescribed, curriculum-based training alone. Heutagogy suggests that effective development systems must be designed to empower managers to identify their own learning needs, curate resources (often digital), connect learning to complex real-world problems, and reflect on their experiences. This perspective directly addresses the second research question by proposing a fundamental shift from instructor-led development to a manager-led, ecosystem-enabled learning process.

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Finally, the Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2007) provides a lens to understand the organizational context and potential barriers to development. The digital era likely increases certain job demands for managers (e.g., information overload, constant connectivity, pressure for rapid innovation) while also introducing new resources (e.g., collaborative technologies, online learning platforms, data analytics tools). Successful competency development requires a balance where developmental activities are designed as 'resources' that help managers meet their 'demands,' rather than becoming an additional demand themselves. This model informs the third research question by highlighting that an integrative development framework must be context-aware, ensuring it is embedded in the workflow and supported by an organizational culture that values learning and provides the necessary time, technology, and psychological safety for experimentation and growth.

In synthesis, this integrated theoretical framework proposes that developing managerial competencies for the digital era involves: 1) targeting the enhancement of individual-level dynamic capabilities, 2) through heutagogical principles that promote self-determined, contextual, and applied learning, 3) within an organizational environment consciously managed using the JD-R lens to optimize the development process. This framework guides the subsequent conceptual discussion and the formulation of propositions for future research and practice.

RESEARCH METHOD

This study adopts a qualitative research design characterized as conceptual desk-based research or a theory synthesis paper. The primary aim is not to generate new empirical data but to engage in a comprehensive analysis and synthesis of existing scholarly literature to construct a novel conceptual framework. This approach is particularly appropriate for integrating fragmented knowledge domains and proposing new theoretical perspectives in emerging fields, such as the intersection of managerial development and digital transformation.

The source of data for this study is exclusively textual, comprising peer-reviewed academic literature. The data includes journal articles, scholarly books, and seminal book chapters. A focused and systematic search was conducted using academic databases such as Scopus, Web of Science, and Google Scholar. Search terms and their combinations included "managerial competency," "digital leadership," "digital transformation," "competency development," "future of work," "adaptive leadership," "digital fluency," and "strategic agility." The inclusion criteria prioritized publications from internationally reputed journals (e.g., Academy of Management Review, Journal of Management Studies, MIS Quarterly, Human Resource Management Review) and books from established academic publishers published predominantly within the last two decades, with key foundational works from earlier periods included for theoretical grounding.

The data collection technique involved a structured process of identification, screening, and selection of relevant literature. After the initial search, abstracts were reviewed for relevance to the core research questions. Selected full-text documents were then subjected to a critical reading. The technique of analysis employed is conceptual

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analysis, guided by the principles of thematic synthesis. This involved repeatedly reading the selected texts to identify, code, and categorize key concepts, themes, and theoretical propositions related to digital-era competencies and development methods. Patterns, relationships, and contradictions across the literature were actively sought.

The process of drawing conclusions was abductive and interpretive. It involved moving iteratively between the identified themes from the literature and the emerging conceptual framework. Conclusions were formulated by logically integrating the synthesized themes into a coherent argument that addresses the research questions. The validity of the conclusions rests on the systematic and transparent selection of literature, the logical coherence of the argument built from this literature, and the alignment of the proposed framework with established theoretical principles from management, learning science, and organizational behavior. The outcome is a proposed conceptual perspective intended to stimulate further empirical research and guide practical application.

RESULT AND DISCUSSION

The synthesis of literature through the applied theoretical lens yields a cohesive conceptual perspective on managerial competency development in the digital era. The results of this conceptual analysis are not presented as empirical findings but as logically derived propositions and an integrated framework that emerges from the critical dialogue between existing theories and research. The following discussion elaborates on these results, structured to address the three research questions sequentially.

This discussion posits that the core competencies for managers in the digital era coalesce around three interdependent domains: Digital Fluency, Adaptive Leadership, and Strategic Innovation. Furthermore, the development of these competencies necessitates a paradigm shift from traditional training to a continuous, integrated, and personalized learning ecosystem. Finally, an effective organizational development system requires the deliberate alignment of competency targets, heutagogical learning design, and supportive job resources.

The subsequent sub-sections will delve into each of these core results, engaging in a detailed dialogue with previous research and the established theoretical framework. Each sub-section will substantiate the proposed concepts, highlight their interconnections, and illustrate their implications for the field of managerial education and organizational practice.

1. The Core Portfolio of Digital-Era Managerial Competencies

The first research question sought to define the core portfolio of managerial competencies essential for effectiveness in the digital era. The conceptual analysis reveals that this portfolio is not merely an additive list of new technical skills appended to a traditional model. Instead, it represents a fundamental reconstitution of managerial capability around three synergistic and dynamic domains: Digital Fluency, Adaptive Leadership, and Strategic Innovation. Each

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domain encompasses a cluster of interrelated knowledge, skills, and mindsets that enable managers to navigate digital complexity.

Digital Fluency forms the foundational layer, transcending basic digital literacy. While digital literacy involves competent use of tools, fluency implies the ability to critically evaluate, creatively apply, and confidently communicate with digital technologies to solve problems and drive outcomes. This includes data literacy—the ability to read, analyze, and derive meaningful insights from data, a competency highlighted as critical in an age of big data (Gartner, 2023). It also encompasses technological acumen, not as coding expertise, but as a working understanding of key digital trends (e.g., AI, blockchain, IoT) sufficient to grasp their business implications and engage meaningfully with technical experts. Furthermore, digital ethics and cybersecurity awareness are integral, as managers must make decisions that balance innovation with responsibility for data privacy, algorithmic bias, and systemic risk.

The second domain, Adaptive Leadership, addresses the profound people and process challenges of the digital VUCA environment. This domain integrates and extends concepts from Heifetz's adaptive leadership and agile methodologies. Core competencies here include cognitive and behavioral agility—the capacity to pivot thinking and strategies rapidly in response to new information or failed experiments. This aligns with Volberda et al.'s (2021) finding on the microfoundations of strategic agility. Additionally, it involves leading distributed and hybrid teams, which requires mastering digital communication platforms and fostering trust, cohesion, and accountability without reliance on physical proximity. A crucial component is creating psychological safety, enabling teams to take risks, voice concerns, and learn from failures without fear, which is paramount for innovation.

Strategic Innovation constitutes the third and highest-order domain, focusing on value creation and future orientation. This domain is where managerial capability directly influences organizational dynamic capabilities. Key competencies include ecosystem thinking—the ability to see beyond organizational boundaries to understand and leverage networks of partners, competitors, customers, and platforms. Managers must shift from managing a value chain to orchestrating a value network. Furthermore, this domain entails opportunity sensing and visionary thinking, the ability to connect technological possibilities with unmet customer needs or new market spaces. Finally, it involves the competency of orchestrating continuous learning and innovation at an organizational level, designing structures and processes that institutionalize experimentation and knowledge sharing.

These three domains are not isolated; they are deeply interconnected. Digital fluency provides the raw material (data, technology understanding) for strategic innovation. Adaptive leadership provides the social and emotional engine that mobilizes people to execute innovative ideas in complex settings. Strategic innovation provides the purpose and direction that focus the application of digital tools and adaptive energies. A manager strong in only one domain will be ineffective; for instance, a data-fluent manager without adaptive leadership skills may fail to secure buy-in for data-driven initiatives, while an adaptive leader without strategic vision may guide a team efficiently in the wrong direction.

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This synthesized portfolio moves beyond the checklists offered by some previous studies (e.g., Caniels et al., 2017) by proposing a structured, hierarchical relationship between competency domains. It also addresses the critique of fragmentation by demonstrating how technical, interpersonal, and strategic competencies are interdependent in practice. The framework resonates with the dynamic capabilities theory by framing these domains as the individual-level capacities that collectively enable organizational sensing, seizing, and transforming. Therefore, the answer to the first research question is a tripartite, dynamic model where competency development must aim for integrative mastery across Digital Fluency, Adaptive Leadership, and Strategic Innovation, rather than isolated skill acquisition.

2. Reimagining Development Principles for the Digital Pace

The second research question interrogates how the fundamental principles of competency development need to be reimagined for the digital era. The analysis concludes that the pace, personalization, and applied nature of digital change demand a decisive shift from pedagogical and even andragogical models toward a heutagogical philosophy, supported by technology-enabled, agile learning methodologies. Development must become continuous, integrated with work, and manager-led.

Traditional managerial development often follows an andragogical model: problem-centered, leveraging experience, and oriented towards immediate application (Knowles et al., 2015). While this remains relevant, its application is often constrained by episodic, program-based delivery. In the digital context, where the half-life of skills is shrinking, waiting for the next scheduled training program is untenable. Heutagogy, with its emphasis on self-determined learning, double-loop learning (changing one's underlying assumptions), and capability development (enabling learners to cope with novel situations), offers a more fitting paradigm. This means development systems must be designed to empower managers to identify their own competency gaps in real-time, curate relevant learning resources, and apply learning immediately to their unique challenges.

This shift necessitates a fundamental change in the role of learning and development (L&D) functions. They must transition from being 'providers of courses' to being 'architects of learning ecosystems' and 'curators of content'. The ecosystem includes a blend of formal micro-learning modules, informal social learning platforms (like enterprise social networks), access to external knowledge sources (online courses, thought leadership), and structured experiential opportunities like stretch assignments, digital project rotations, and innovation labs. Technology is not just a subject of learning but the primary enabler of this ecosystem, allowing for personalized learning paths, just-in-time performance support, and data-driven insights into skill gaps and development progress.

Micro-credentialing and digital badging emerge as critical methodological components in this new paradigm. They provide flexible, verifiable, and granular recognition of skill acquisition, allowing managers to build their competency portfolio in a modular fashion aligned with their career aspirations and immediate job demands. This approach supports the heutagogical ideal by giving

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learners agency over their development trajectory and providing tangible milestones. Furthermore, methodologies like action learning, where managers work on real strategic problems in teams with coaching, become more powerful when focused on digital transformation challenges, directly linking learning to value creation and strategic agility.

However, embedding this approach faces significant barriers illuminated by the JD-R Model. A manager facing high job demands (e.g., relentless digital firefighting) may perceive self-determined learning as an additional burden, not a resource. Therefore, the development system must be consciously designed to reduce friction. This includes integrating learning into workflow tools (e.g., embedding a micro-lesson on data visualization within a business intelligence platform), protecting 'learning time' culturally, and ensuring leaders model continuous learning behaviors. The development principle, therefore, is not just about adopting new methods like microlearning, but about designing an entire learning environment that makes heutagogical development the path of least resistance and greatest reward for the busy digital-era manager.

3. An Integrative Framework for Developmental Systems

The third research question aims to synthesize the answers to the first two into a practical, integrative framework to guide organizations. The proposed framework consists of three aligned and interacting components: a Competency Architecture (the what), a Heutagogical Learning Engine (the how), and an Enabling Organizational Scaffold (the context). The synergy among these components is what differentiates an effective, sustainable development system from a series of disjointed initiatives.

The Competency Architecture is the foundational component, providing clarity and direction. It is built upon the tripartite model of Digital Fluency, Adaptive Leadership, and Strategic Innovation. However, for practical application, this high-level model must be contextualized. Organizations should develop behaviorally-anchored competency descriptions for different managerial levels (e.g., frontline, middle, senior) that reflect their specific industry and digital strategy. For instance, digital fluency for a senior executive may emphasize strategic technology scanning and governance, while for a frontline manager it may focus on leveraging team collaboration software and interpreting operational dashboards. This architecture must be dynamic, regularly reviewed and updated to reflect technological and strategic shifts, ensuring development efforts remain relevant.

The Heutagogical Learning Engine is the operational core that brings the competency architecture to life. It is a technology-enabled platform that provides managers with three key freedoms: the freedom to choose (a curated marketplace of learning resources—micro-courses, podcasts, articles, mentor connections), the freedom to customize (tools to build personal learning paths based on self-assessments, performance feedback, and career goals), and the freedom to create and connect (spaces to share insights, work on action learning projects, and build internal communities of practice). This engine leverages AI for personalized recommendations and uses digital badges to provide recognition and signal

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competency attainment to the organization. It institutionalizes the principles discussed earlier, making continuous, self-directed learning the default mode.

The Enabling Organizational Scaffold provides the necessary support structures for the engine to function effectively. This component is informed directly by the JD-R Model. Key elements include: Leadership Modeling and Reinforcement, where senior leaders visibly engage in learning and tie development to career progression; Cultural Support, fostering a growth mindset where experimentation and learning from failure are valued over mere expertise; Resource Provision, ensuring managers have dedicated time, access to technology, and budgetary support for external learning; and Integrated Talent Processes, where competency development is linked to performance management, succession planning, and promotion decisions. Without this scaffold, the learning engine risks becoming an underutilized platform, and the competency architecture becomes merely a document.

The integration of these three components creates a virtuous cycle. A clear Competency Architecture guides the curation of content in the Learning Engine. The Engine empowers managers to develop, which is reinforced by the Organizational Scaffold. Data from the Engine on skill gaps and learning engagement feeds back to refine the Architecture and identify needed changes to the Scaffold (e.g., a need for more protected learning time). This framework addresses the gap identified in previous research by providing a holistic, systemic view. It moves beyond the descriptive lists of competencies or isolated praise for new learning methods to offer a blueprint for how an organization can strategically design its entire managerial development value chain for the digital era, aligning individual growth with organizational agility and innovation capacity.

CONCLUSION

This conceptual article has endeavored to construct a coherent perspective on the critical challenge of developing managerial competencies for the digital era. Through a synthesis of literature across management, information systems, and learning sciences, and guided by an integrated theoretical framework, the study has proposed answers to its core research questions, offering a structured approach to bridge the gap between the demands of digital transformation and current developmental practices.

The analysis conclusively demonstrated that the core portfolio of essential managerial competencies is best understood as three interconnected domains: Digital Fluency, Adaptive Leadership, and Strategic Innovation. These are not standalone skills but dynamic capabilities that enable managers to understand technology, lead people through change, and drive value-creating innovation. This tripartite model provides a more holistic and actionable map for development efforts than disparate skill lists, directly addressing the first research question by clarifying the ‘destination’ for managerial growth in a digital context.

Furthermore, the study convincingly argued that the principles underpinning development must be radically reimagined. The pace of digital change necessitates a shift from periodic, standardized training to a continuous, personalized, and integrated learning process. The appropriate guiding philosophy is heutagogy—self-determined learning—powered by technology-enabled ecosystems that offer micro-learning, social

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collaboration, and just-in-time support. This answers the second research question by redefining the 'vehicle' for development, making it agile and manager-centric to match the velocity of the digital environment.

Finally, to operationalize these insights, the article proposed an integrative framework consisting of a Competency Architecture, a Heutagogical Learning Engine, and an Enabling Organizational Scaffold. This framework provides a systemic blueprint for organizations, showing how to align competency targets, learning methodologies, and supportive cultural and structural elements. It answers the third research question by providing the 'roadmap' that connects individual development to organizational strategy, ensuring that managerial growth is not an isolated HR function but a core strategic imperative for digital maturity.

As a conceptual study, this article's primary limitation is the lack of empirical validation. The proposed framework and its components are derived from theory and synthesis of existing research but have not been tested in organizational settings. Their practical efficacy, the relative weighting of different competencies, and the specific barriers to implementing a heutagogical ecosystem require empirical investigation. Furthermore, the study takes a largely universalist perspective; industry-specific, cultural, and organizational-size contingencies that might shape the ideal competency profile or feasible development approaches are not deeply explored.

Future research should focus on empirically testing the proposed framework through case studies, action research, or quantitative surveys across different industries. Researchers could investigate which elements of the Enabling Organizational Scaffold are most critical for success or how the competency domains manifest at different managerial levels. For practitioners, the recommendation is to use this framework as a diagnostic and design tool. Organizations should audit their current development practices against the three components, identify the weakest link (e.g., a strong competency model but a weak learning engine, or a great platform but a culture that doesn't support learning time), and initiate pilot programs to build a more integrated, digital-era appropriate system for developing their managerial talent.

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