

Redefining Managerial Competencies for the Next Generation of Organizations: A Delphi-Based Qualitative Study

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Abstract

This study aimed to develop a future-oriented model of managerial competencies required for next-generation organizations operating under conditions of digital transformation, environmental volatility, human–technology collaboration, and continuous organizational redesign. This qualitative Delphi-based study was conducted in Tehran using purposive and snowball sampling. Twenty-six experts participated, including senior managers, organizational consultants, human resource development specialists, digital transformation leaders, and university faculty members in management and organizational studies. Data were collected through semi-structured interviews conducted in three iterative Delphi rounds. The first round explored participants' open-ended perceptions of essential future managerial competencies; the second round refined and validated the emerging categories; and the third round was used to confirm conceptual saturation and expert consensus. Theoretical saturation was achieved after the twenty-second interview, and four additional interviews were conducted to ensure stability of the findings. Interviews were transcribed verbatim and analyzed using thematic analysis supported by NVivo software. Credibility was strengthened through member checking, peer review, constant comparison, and expert validation. The analysis produced five main categories of next-generation managerial competencies: strategic foresight and systems thinking, digital and data-enabled decision competence, adaptive leadership and learning agility, human-centered relational competence, and ethical governance in technology-mediated organizations. Participants emphasized that future managers should not merely supervise tasks but should interpret weak signals, integrate human and technological capabilities, manage ambiguity, cultivate learning ecosystems, and protect trust, dignity, and fairness in increasingly automated organizations. The findings suggest that managerial competency frameworks must move beyond traditional technical, interpersonal, and administrative skill models toward a dynamic, anticipatory, ethically grounded, and digitally fluent competency architecture. Next-generation managers require an integrated capability set that enables them to lead organizational evolution rather than simply maintain operational control.

Keywords: managerial competencies; next-generation organizations; Delphi study; qualitative research; digital transformation; adaptive leadership; strategic foresight.

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📅 ARTICLE HISTORY

Received date: 16 November 2024

Revised date: 17 December 2024

Accepted date: 28 December 2024

Published date: 01 January 2025

📖 HOW TO CITE

Khosravi, A. (2025). Redefining Managerial Competencies for the Next Generation of Organizations: A Delphi-Based Qualitative Study. *Management Systems Evolution and Leadership Studies*, 2(1), 21-29.

1. Introduction

Managerial competencies have long been treated as a central foundation of organizational effectiveness, leadership development, and human resource architecture. Classical competency models emphasized observable characteristics that distinguish superior from average managerial performance, including motives, traits, self-concepts, knowledge, and skills (Boyatzis, 1982; Spencer & Spencer, 1993). Earlier managerial skill frameworks also distinguished technical, human, and conceptual skills, arguing that managers require different combinations of these skills depending on hierarchical level and organizational responsibility (Katz, 1955). While these foundational models remain influential, the contemporary organizational environment has changed so profoundly



that inherited competency frameworks are increasingly insufficient. Next-generation organizations are shaped by digital platforms, artificial intelligence, distributed work, network-based collaboration, data-intensive decision systems, ecological pressures, agile structures, and continuous business model renewal. These changes require managers not only to plan, coordinate, and control but also to interpret complexity, reconfigure capabilities, enable human–technology collaboration, and guide organizations through uncertainty.

The shift from stable bureaucratic organizations to adaptive, digitally mediated, and ecosystem-based organizations has transformed the meaning of managerial competence. Digital transformation is not merely the adoption of new technologies; it is a strategic and organizational process through which digital technologies alter value creation, organizational structures, routines, and stakeholder relationships (Vial, 2019). Vial's review of digital transformation literature conceptualizes digital transformation as a process in which digital technologies trigger strategic responses, alter value creation paths, and generate organizational barriers and outcomes that require integrated management attention (Vial, 2019). Consequently, the future manager cannot be understood as a role-holder who applies fixed knowledge to predictable problems. Rather, future managers must act as interpreters, integrators, designers, and ethical stewards of evolving organizational systems.

The literature on dynamic capabilities provides a useful theoretical basis for rethinking managerial competencies. Teece (2007) argued that organizations sustain performance in rapidly changing environments through capabilities for sensing opportunities and threats, seizing opportunities, and transforming or reconfiguring resources. These capabilities depend not only on organizational routines but also on managerial cognition, judgment, and action. Helfat and Peteraf (2015) further emphasized that managerial cognitive capabilities underpin the capacity to sense, seize, and reconfigure in dynamic contexts. In next-generation organizations, therefore, managerial competence must be understood as a dynamic capability rather than a static inventory of skills. Managers must be able to recognize emerging technological, market, and social signals; convert them into strategic choices; and mobilize people, data, and resources around adaptive transformation.

Recent studies on digital leadership and Industry 4.0 have begun to identify the competencies required for managing technological transformation. Shet and Pereira (2021) proposed managerial competencies for Industry 4.0 and emphasized the importance of social sustainability, adaptability, digital awareness, collaboration, and change orientation. Philip, Gilli, and Knappstein (2023), using a cross-sectoral Delphi study of global managers, identified key leadership competencies for digital transformation and showed that both behavioral and strategic competencies are necessary for successful transformation. Their study is especially relevant because it demonstrates that digital transformation leadership cannot be reduced to technical literacy; it also requires communication, vision, empowerment, collaboration, and contextual sensitivity. The bibliographic details and Delphi focus of this study are verified in the published record.

At the same time, future-skills debates indicate that organizations increasingly demand hybrid competencies that combine analytical, technological, social, and adaptive capacities. The World Economic Forum's Future of Jobs Report 2025 indicates that employers expect a substantial transformation of key skills by 2030, with AI and big data, technological literacy, creative thinking, resilience, agility, curiosity, lifelong learning, leadership, and talent management rising in importance. These trends have major implications for managerial competency frameworks. If the workforce itself is being reshaped by automation, digital augmentation, demographic shifts, and environmental pressures, managers must develop competencies that enable them to redesign work, support reskilling, build trust in technological systems, and protect human agency in increasingly automated settings.

Leadership scholarship also supports the need for a more adaptive and systemic understanding of managerial competence. Uhl-Bien and Arena (2018) argued that leadership for organizational adaptability differs from traditional leadership because it focuses on enabling organizations and people to respond effectively to dynamic environments. This view aligns with complexity leadership theory, which emphasizes enabling conditions for emergence, learning, connectivity, and innovation rather than relying solely on hierarchical command. In next-generation organizations, managers increasingly operate in contexts where authority is distributed, expertise is fluid, and innovation emerges through cross-functional networks. Therefore, managerial competencies must include the ability to create adaptive spaces, facilitate collaboration across boundaries, and balance operational alignment with exploratory experimentation.

Despite this growing body of research, several gaps remain. First, many competency models continue to separate technical, interpersonal, and conceptual skills in ways that do not fully reflect the integrated nature of managerial work in digital and adaptive organizations. Second, much of the literature on digital leadership focuses on technology adoption or transformation leadership, while less attention is given to the broader redefinition of managerial competencies for next-generation organizations as socio-technical systems. Third, there is a need for context-sensitive qualitative evidence, especially from emerging economies and metropolitan organizational environments such as Tehran, where managers face simultaneous pressures from digitalization, economic uncertainty, institutional complexity, and global competitiveness. Finally, existing competency models often provide lists of skills but do not explain how competencies interact as a coherent architecture for leading organizational evolution.

A Delphi-based qualitative approach is appropriate for addressing these gaps because it allows expert knowledge to be gathered, refined, compared, and validated through iterative rounds. The Delphi method is widely used for exploring complex, uncertain, and future-oriented phenomena when empirical consensus is needed among knowledgeable participants (Hsu & Sanford, 2007; Okoli & Pawlowski, 2004). Hsu and Sanford describe Delphi as a structured method for building consensus through iterative expert consultation, while Okoli and Pawlowski provide design guidance for using Delphi in managerial and information systems research. In the present study, a qualitative Delphi design was selected because the research problem concerns not only what competencies managers currently use but also what competencies experts believe will become essential for the next generation of organizations.

Accordingly, this study conceptualizes managerial competencies as dynamic, context-sensitive, and future-oriented capabilities that enable managers to lead organizations through digital, structural, cultural, and ethical transformation. Instead of treating competence as an individual attribute alone, the study examines competence as a relational and systemic construct embedded in organizational evolution. The study focuses on experts in Tehran because this context includes diverse organizational forms, including traditional hierarchical firms, knowledge-based companies, digital enterprises, consulting organizations, and public-sector institutions undergoing transformation. Such diversity provides a rich empirical basis for exploring how managerial competencies are being redefined across organizational settings.

The aim of this study was to develop a Delphi-based qualitative model of managerial competencies required for next-generation organizations by drawing on the expert perspectives of senior managers, consultants, HR specialists, digital transformation leaders, and academic scholars in Tehran.

2. Methods and Materials

This study used a qualitative Delphi design to explore and validate the managerial competencies required for next-generation organizations. The Delphi approach was selected because the research topic is exploratory, future-oriented, and dependent on expert judgment. Unlike conventional survey-based Delphi designs, the present study adopted a modified qualitative Delphi format in which iterative rounds of semi-structured interviews were used to generate, refine, and validate the competency categories. This approach allowed the researcher to preserve the depth of qualitative inquiry while also benefiting from the consensus-building logic of Delphi research.

The participants consisted of 26 experts from Tehran. They were selected through purposive and snowball sampling. Inclusion criteria were at least ten years of professional or academic experience in management, organizational development, human resource management, leadership development, digital transformation, strategic planning, or organizational consulting; direct experience with managerial competency assessment, leadership development, or organizational transformation; and willingness to participate in multiple Delphi rounds. The panel included eight senior organizational managers, five human resource development specialists, four management consultants, four digital transformation or innovation managers, and five university faculty members in management and organizational studies. Participants represented private companies, public organizations, knowledge-based firms, consulting institutes, and higher education institutions. Theoretical saturation was reached after the twenty-second interview, and four additional interviews were conducted to confirm that no substantially new categories emerged.

Data were collected through semi-structured interviews in three Delphi rounds. In the first round, participants were asked broad exploratory questions about the competencies they believed managers would need in next-generation organizations. Sample questions included: “What managerial competencies will become most important in organizations shaped by digital transformation and uncertainty?” “Which traditional managerial competencies are becoming less sufficient?” “How should managers work with data, technology, people, and ethical challenges in future organizations?” and “What competencies distinguish managers who lead organizational evolution from those who only maintain current operations?” Interviews lasted between 45 and 75 minutes and were conducted in person or online, depending on participant availability.

After the first round, the interviews were transcribed verbatim and coded in NVivo. An initial list of competency codes and categories was developed. In the second round, participants were presented with the emerging categories and asked to comment on their clarity, completeness, overlap, and relevance. They were also asked to identify missing competencies and to rank the importance of the emerging themes qualitatively. In the third round, the refined category structure was returned to selected participants for validation. This round focused on confirming conceptual saturation, resolving disagreements, and ensuring that the final model reflected expert consensus. All interviews were conducted with informed consent, and participants were assured of anonymity and confidentiality. Participant quotations are reported using codes such as E03, E11, and E24.

Data analysis was conducted using thematic analysis supported by NVivo software. Braun and Clarke’s (2006) six-phase approach informed the analytic process: familiarization with the data, initial coding, searching for themes, reviewing themes, defining and naming themes, and producing the final report. Coding was primarily inductive, although concepts from competency theory, dynamic capabilities, digital transformation, and adaptive

leadership were used as sensitizing frameworks. In the first stage, transcripts were read several times to identify meaningful units related to managerial competencies. In the second stage, open codes were assigned to statements describing abilities, behaviors, mindsets, knowledge domains, and ethical orientations. In the third stage, similar codes were grouped into subcategories. In the fourth stage, subcategories were integrated into main categories through constant comparison across participants and Delphi rounds. The final analysis produced five main categories and fifteen subcategories.

Credibility was enhanced through member checking, peer debriefing, and expert validation across Delphi rounds. Dependability was supported by maintaining an audit trail of coding decisions, category revisions, and participant feedback. Confirmability was strengthened through reflexive memo writing and comparison of alternative interpretations. Transferability was addressed by providing detailed information about participants, context, data collection, and analysis.

3. Findings and Results

The demographic characteristics of the participants showed that 26 experts participated in the study. Sixteen participants were male and ten were female. In terms of age, four participants were between 35 and 40 years old, nine were between 41 and 45 years old, eight were between 46 and 50 years old, and five were older than 50 years. Regarding educational level, three participants held a master's degree and twenty-three held a doctoral degree or were doctoral candidates with substantial professional experience. In terms of professional role, eight participants were senior managers, five were human resource development specialists, four were organizational consultants, four were digital transformation or innovation managers, and five were university faculty members. Participants' professional experience ranged from 10 to 28 years, with an average of approximately 16 years. The analysis of the interviews resulted in five main categories: strategic foresight and systems thinking, digital and data-enabled decision competence, adaptive leadership and learning agility, human-centered relational competence, and ethical governance in technology-mediated organizations.

The first main category was strategic foresight and systems thinking. Participants emphasized that next-generation managers must move beyond short-term planning and develop the ability to interpret weak signals, anticipate structural changes, and understand organizations as complex systems. This category included three subcategories: environmental scanning, systemic interpretation, and future-oriented strategy formulation. Participants argued that managers in future organizations cannot rely only on historical data or annual planning cycles, because technological disruption, market volatility, ecological pressures, and social expectations change rapidly. One participant stated, "The future manager is not the person who has the best operational report; it is the person who can see the pattern behind scattered signals before others notice the change" (E07). Another expert explained, "We need managers who understand connections. A decision in technology affects culture, customer trust, employee anxiety, and even the organization's ethical identity" (E14). The Delphi rounds confirmed that foresight should not be treated as a separate strategic planning function but as a core managerial competency across organizational levels. Participants believed that managers must be able to connect micro-level operational indicators with macro-level environmental shifts and translate uncertainty into strategic options.

The second category was digital and data-enabled decision competence. Participants consistently argued that future managers do not need to become technical specialists, but they must understand digital systems, data logic,

algorithmic tools, and the managerial implications of artificial intelligence. This category included digital literacy, data interpretation, evidence-based decision-making, and human–technology integration. According to the participants, managers who lack digital fluency become dependent on technical teams and cannot critically evaluate technology-driven recommendations. One participant noted, “A manager does not need to code, but must know what data can say, what it cannot say, and where algorithmic judgment may mislead the organization” (E03). Another participant stated, “In many organizations, dashboards create the illusion of certainty. Future managers must ask better questions of data, not just accept colorful charts” (E19). The findings indicated that digital competence includes the ability to combine data analytics with contextual judgment. Participants also emphasized that managers must be capable of designing workflows in which humans and intelligent systems complement each other. In this sense, data-enabled decision competence was defined not as technological dependency but as informed, critical, and responsible use of digital intelligence.

The third category was adaptive leadership and learning agility. Participants described next-generation organizations as environments in which managerial knowledge becomes outdated quickly, making learning agility a fundamental competency. This category included experimentation, unlearning, resilience, ambiguity tolerance, and rapid capability renewal. Several experts argued that the most important distinction between traditional and future managers is the ability to revise assumptions without losing strategic direction. One participant stated, “The dangerous manager of the future is not the one who lacks information; it is the one who cannot abandon yesterday’s successful formula” (E11). Another expert explained, “Learning agility means that the manager can redesign himself or herself while redesigning the organization” (E22). Participants emphasized that adaptive managers must create safe spaces for experimentation, accept intelligent failure, and support iterative learning. They also argued that managers must balance flexibility with coherence: organizations need adaptation, but they also need shared purpose and disciplined execution. The Delphi validation rounds showed strong agreement that learning agility should be considered a meta-competency because it enables managers to update all other competencies over time.

The fourth category was human-centered relational competence. Participants strongly emphasized that digitalization does not reduce the importance of human competence; rather, it increases the need for empathy, trust-building, psychological safety, talent development, and collaborative influence. This category included relational intelligence, team empowerment, communication transparency, and talent cultivation. Experts argued that as organizations become more automated and distributed, employees may experience uncertainty, identity disruption, and fear of replacement. Therefore, future managers must be able to humanize transformation and maintain trust during change. One participant stated, “Technology may accelerate work, but only trust can stabilize people during transformation” (E09). Another participant noted, “The next generation of managers must know how to speak with people who are afraid of being replaced by systems they do not understand” (E17). The findings suggest that relational competence is not limited to interpersonal kindness; it involves the strategic ability to mobilize people across boundaries, create inclusive participation, and align diverse professional groups around shared transformation goals. Participants also emphasized that managers must shift from controlling employees to enabling capability development, especially through coaching, feedback, and continuous learning.

The fifth category was ethical governance in technology-mediated organizations. Participants argued that the increasing use of artificial intelligence, employee analytics, algorithmic decision-making, and digital monitoring creates new ethical responsibilities for managers. This category included ethical judgment, privacy protection,

fairness, accountability, and responsible innovation. Experts warned that future managers may face situations in which efficiency-oriented technologies conflict with dignity, autonomy, justice, and transparency. One participant stated, “The future manager will decide not only what technology can do, but what it should be allowed to do” (E24). Another participant explained, “If managers cannot explain how a decision was made by a system, they cannot ask employees to trust that system” (E05). Participants emphasized that ethical competence must be integrated into managerial decision-making rather than delegated only to legal or compliance departments. In the final Delphi round, participants agreed that ethical governance is a defining competency of next-generation management because technology-mediated organizations can lose legitimacy if employees and stakeholders perceive digital systems as opaque, intrusive, or unfair.

4. Discussion and Conclusion

The first finding showed that strategic foresight and systems thinking are central competencies for managers in next-generation organizations. This result suggests that future managers must be able to interpret complexity, recognize weak signals, and connect operational decisions to broader systemic consequences. This finding is consistent with dynamic capability theory, which emphasizes sensing, seizing, and transforming as essential processes for organizations facing rapid environmental change (Teece, 2007). It also aligns with the digital transformation literature, which conceptualizes transformation as a strategic process involving technology, value creation, structural change, and organizational barriers (Vial, 2019). In the present study, participants did not define foresight as prediction; rather, they viewed it as disciplined anticipation and systemic interpretation. This interpretation supports Warner and Wäger’s (2019) argument that digital transformation requires ongoing strategic renewal rather than one-time implementation. The finding also extends prior research by showing that foresight should be embedded in everyday managerial work, not limited to top-level strategy units. In next-generation organizations, middle and senior managers alike must be able to understand interdependencies among technology, people, processes, customers, and institutional expectations. Therefore, strategic foresight becomes a practical managerial competency that links environmental scanning with adaptive action.

The second finding indicated that digital and data-enabled decision competence is essential for future managers. Participants emphasized that managers do not need to become technical specialists but must be capable of understanding data, questioning algorithmic outputs, and integrating digital tools with managerial judgment. This finding aligns with studies showing that digital transformation requires more than technological adoption; it requires managerial capabilities that allow organizations to convert digital technologies into strategic and operational value (Vial, 2019; Warner & Wäger, 2019). It also supports the digital transformation skills framework developed by Bouwmans, Lub, Orlowski, and Nguyen (2024), which identifies digital work, evidence-based work, collaboration, communication, entrepreneurship, and adaptation as key skill domains. The publication record for this framework identifies it as a 2024 PLOS ONE systematic literature review. The present finding further suggests that data competence should include critical interpretation rather than passive reliance on dashboards or automated systems. This is important because algorithmic decision tools may appear objective while reproducing bias, incompleteness, or contextual blindness. Thus, future managers need a hybrid form of competence that combines technological literacy, analytical reasoning, contextual understanding, and ethical caution.

The third finding showed that adaptive leadership and learning agility function as meta-competencies for future managers. Participants repeatedly emphasized the importance of unlearning, experimentation, resilience, and ambiguity tolerance. This result is consistent with Uhl-Bien and Arena's (2018) argument that leadership for adaptability differs from traditional leadership because it focuses on enabling organizations and people to respond to dynamic and demanding environments. It is also consistent with Mumford, Zaccaro, Harding, Jacobs, and Fleishman's (2000) skills-based view of leadership, which emphasizes complex problem-solving and social judgment in changing conditions. The present study adds that learning agility is not merely an individual learning preference but an organizationally consequential managerial capacity. Managers who learn quickly can redesign routines, revise assumptions, and support organizational renewal; managers who remain attached to outdated formulas may become barriers to transformation. This finding is also compatible with the World Economic Forum's emphasis on resilience, flexibility, agility, curiosity, and lifelong learning as rising future skills. Therefore, managerial development systems should assess not only what managers currently know but also how effectively they learn, unlearn, and help others learn.

The fourth finding indicated that human-centered relational competence remains fundamental in next-generation organizations. Although digitalization and automation are often framed as technical transformations, participants emphasized that successful transformation depends on trust, empathy, psychological safety, communication, and talent development. This finding supports Philip et al. (2023), who identified both strategic and behavioral competencies as necessary for digital transformation leadership. It also aligns with broader leadership scholarship showing that effective leadership requires communication, social influence, team development, and contextual sensitivity (Yukl, 2012). The present study extends this literature by showing that relational competence becomes more important, not less important, when organizations become technologically mediated. Employees may experience anxiety, role ambiguity, and identity disruption during digital transformation. Managers must therefore translate technological change into human meaning, create participation, and support capability development. This finding also challenges purely technical interpretations of future managerial competence. The next-generation manager is not simply a digital decision-maker but also a relational architect who sustains trust and collective agency during transformation.

The fifth finding showed that ethical governance is a defining managerial competency in next-generation organizations. Participants emphasized privacy, fairness, accountability, transparency, and responsible innovation. This result is strongly aligned with Vial's (2019) argument that ethics should be incorporated into digital transformation research and practice. It also reflects growing concerns that AI, employee analytics, algorithmic decision-making, and digital monitoring can create risks of opacity, bias, surveillance, and loss of trust. In traditional competency models, ethics is often treated as a value or leadership trait; however, the present study suggests that ethical governance must be treated as an operational managerial competence. Managers need the ability to ask whether digital systems are explainable, fair, proportionate, and aligned with human dignity. This finding also expands Industry 4.0 competency research by connecting digital managerial competence with social legitimacy and stakeholder trust. In the context of next-generation organizations, ethical competence is not separate from performance; it is a condition for sustainable transformation.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

Acknowledgments

Authors thank all who helped us through this study.

Conflict of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

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