



From Human-Centered to Agentic Management: Rethinking Organizational Theory in the Age of AI

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Abstract

The rapid advancement of artificial intelligence (AI) is fundamentally reshaping the nature of work, decision-making, and organizational design. Traditional organizational theories have been grounded in human-centered assumptions, emphasizing human cognition, leadership, motivation, and agency as the primary drivers of coordination and value creation. However, the emergence of increasingly autonomous, learning-enabled AI systems challenges these foundations by introducing non-human agents capable of decision-making, adaptation, and goal-directed behavior. This article develops the concept of agentic management, a theoretical framework that reconceptualizes organizations as hybrid systems composed of human and artificial agents. We examine how AI alters core dimensions of organizational theory, including authority, accountability, coordination, knowledge creation, and strategic control. Drawing on interdisciplinary insights from management theory, sociology, information systems, and AI research, we propose a shift from hierarchical, human-centered models toward distributed, algorithmically augmented governance structures. We further discuss the implications of agentic management for leadership, organizational identity, ethics, and institutional legitimacy. By articulating key theoretical tensions and research directions, this article offers a foundation for rethinking organizational theory in an era where agency is increasingly shared between humans and machines.

Keywords: Artificial Intelligence; Agentic Management; Organizational Theory; Human-AI Collaboration; Algorithmic Governance; Digital Transformation; Hybrid Organizations; Autonomous Systems; Organizational Design



1. Introduction

Artificial intelligence (AI) is rapidly transforming how organizations create value, coordinate work, and exercise control. Recent advances in machine learning, generative AI, and autonomous systems have moved AI from a supportive analytical tool to an active participant in decision-making processes (Ajmal & Suleman, 2015a). Empirical evidence shows that AI systems can significantly reshape productivity, expertise distribution, and workflow design. For example, field experiments demonstrate that generative AI substantially improves worker productivity and quality, particularly among less-experienced employees (Noy & Zhang, 2023). Similarly, large-scale evidence from customer support settings shows that AI assistance increases performance and compresses skill differences across workers (Brynjolfsson, Li, & Raymond, 2024). These findings suggest that AI is not merely automating routine tasks but actively reshaping knowledge work and organizational capability structures.

Traditional organizational theory, however, has largely assumed that agency resides exclusively in human actors (Ajmal & Suleman, 2015b). Foundational models of organizational decision-making and design emphasize bounded rationality, hierarchical authority, and human motivation as the core drivers of coordination. Yet AI systems increasingly perform evaluative, predictive, and allocative functions that were once the domain of managers (Ajmal, Islam, & Islam, 2024b). Raisch and Krakowski (2021) describe this development as the “automation–augmentation paradox,” arguing that AI simultaneously replaces and enhances human judgment, thereby challenging established assumptions about managerial roles and organizational structure (Raisch & Krakowski, 2021). This paradox destabilizes the traditional distinction between human decision-makers and technological tools.

AI also transforms control and governance mechanisms. Algorithmic management systems now allocate tasks, monitor performance, and evaluate outcomes in real time (Ajmal, Islam, & Khalid, 2025a). Research shows that such systems redistribute authority, shifting discretion from frontline workers and middle managers toward data-driven infrastructures (Kellogg, Valentine, & Christin, 2020). Rather than serving merely as decision-support systems, algorithms increasingly enact managerial functions. This development raises fundamental questions about accountability, transparency, and organizational legitimacy (Ajmal, Islam, & Khalid, 2025b).

Moreover, AI alters the epistemic foundations of organizations. As machine learning systems process vast datasets and generate predictive insights, they reconfigure how knowledge is created and validated. Studies on human–AI collaboration demonstrate that decision quality often depends on how authority is shared between humans and algorithms (Shrestha, Ben-Menahem, & von Krogh, 2019). When AI outputs are treated as authoritative, organizational routines adapt accordingly, potentially reshaping professional expertise and identity (Ajmal, Islam, & Khalid, 2025c). Consequently, AI challenges not only operational processes but also the cognitive and institutional logics underpinning organizations.

In parallel, ethical and societal concerns surrounding AI intensify pressures on organizational governance. Issues of bias, opacity, and explainability have become central to debates on responsible AI (Ajmal, Islam, & Khalid, 2025d). Scholars argue that organizations must design oversight mechanisms that ensure transparency and accountability in algorithmic systems (Bélanger & Crossler, 2022). As AI systems become



embedded in high-stakes decision contexts, organizations face growing institutional demands to justify and govern their use responsibly.

Collectively, this emerging body of research highlights a theoretical gap. While digital transformation has long been studied within management scholarship, the rise of increasingly autonomous AI systems challenges the human-centered foundations of organizational theory (Ajmal, Khalid, & Islam, 2025b). AI systems now participate in sensing, interpreting, and acting within organizational processes. They shape decisions, allocate resources, and influence outcomes in ways that resemble functional agency. Existing frameworks do not fully capture this distributed configuration of agency across human and artificial actors (Ajmal, Khalid, & Islam, 2025c).

This article responds to this challenge by proposing the concept of agentic management—a framework that reconceptualizes organizations as hybrid systems composed of interdependent human and artificial agents. Rather than treating AI as a passive tool, agentic management recognizes its role in shaping authority, coordination, learning, and accountability structures (Ajmal, Khalid, & Islam, 2025d). By examining how AI redistributes cognitive capacity, managerial control, and organizational responsibility, this study aims to extend organizational theory beyond its anthropocentric roots. In doing so, it seeks to provide a conceptual foundation for understanding governance, leadership, and institutional legitimacy in the age of AI.

2. Literature Review

2.1. Foundations of Human-Centered Organizational Theory

Organizational theory has traditionally conceptualized firms as systems designed to coordinate and control human actors under conditions of bounded rationality and environmental uncertainty (Islam, Ajmal, & Khalid, 2025a). Early administrative and behavioral theories positioned human cognition, hierarchy, and motivation at the core of organizational functioning. Simon's theory of bounded rationality argued that organizations exist to compensate for individuals' cognitive limitations by structuring decisions through rules, routines, and authority systems (Simon, 1957). Similarly, Cyert and March's behavioral theory of the firm emphasized coalition building, standard operating procedures, and adaptive learning as mechanisms for managing conflict and uncertainty within organizations (Cyert & March, 1963).

Institutional theory further reinforced this human-centered orientation by conceptualizing organizations as socially embedded actors seeking legitimacy within normative and regulatory environments (DiMaggio & Powell, 1983). The resource-based view identified firm-specific human expertise and tacit knowledge as key sources of sustained competitive advantage (Barney, 1991). Across these theoretical traditions, agency, intentionality, and accountability were exclusively attributed to humans, while technology was treated as either an external contingency or a neutral instrument.

However, sociomaterial perspectives began challenging the strict separation between humans and technology. Orlikowski and Scott (2008) argued that technology and organizational practices are constitutively entangled, co-shaping outcomes in everyday work (Islam, Khalid, & Ajmal, 2025a). Leonardi (2011) further demonstrated how technologies afford and constrain action, influencing routines and organizational structures. Although these perspectives blurred the boundaries between social and material elements, they still stopped short of recognizing technologies as participants in decision-making processes.



2.2. Artificial Intelligence and Organizational Decision-Making

The rise of artificial intelligence marks a significant departure from earlier technological shifts because AI systems increasingly perform evaluative, predictive, and generative tasks that shape managerial decisions. Empirical evidence shows that generative AI tools significantly improve productivity and output quality in knowledge-intensive tasks, particularly for less-experienced workers (Noy & Zhang, 2023). Similarly, large-scale field studies demonstrate that AI-assisted customer support agents experience substantial performance gains, with AI tools reducing skill disparities across employees (Brynjolfsson, Li, & Raymond, 2024).

These findings suggest that AI systems are not merely automating repetitive tasks but actively reshaping the distribution of expertise within organizations. Raisch and Krakowski (2021) conceptualize this dynamic as the “automation–augmentation paradox,” in which AI both substitutes and complements human judgment. This dual role challenges traditional assumptions about managerial authority and decision rights. Shrestha, Ben-Menahem, and von Krogh (2019) argue that AI integration requires rethinking decision-making structures, proposing hybrid models in which humans and algorithms jointly exercise control over organizational processes (Khalid, Islam, & Ajmal, 2025a).

Consequently, decision-making authority becomes distributed across human and artificial agents. AI systems increasingly filter information, generate alternatives, and recommend actions, thereby influencing outcomes in ways that resemble functional agency. This shift calls into question the long-standing anthropocentric assumptions embedded in organizational theory.

2.3. Algorithmic Management and Organizational Control

AI has also transformed managerial control systems through the emergence of algorithmic management. Digital platforms and AI-enabled systems now allocate tasks, monitor performance, and enforce standards in real time. Research shows that algorithmic control reconfigures power dynamics by embedding managerial authority within technological infrastructures rather than individual supervisors (Kellogg, Valentine, & Christin, 2020).

This transformation challenges traditional hierarchical models. In algorithmically managed environments, performance metrics and behavioral expectations are encoded in software systems that operate continuously and at scale. While such systems enhance efficiency and standardization, they also raise concerns about worker autonomy, transparency, and contestability. The opacity of algorithmic decision-making processes intensifies debates about accountability and fairness, particularly when AI systems operate as “black boxes” (Pasquale, 2015).

Thus, algorithmic management represents not only a technological innovation but also a structural shift in how authority and control are exercised within organizations.

2.4. Knowledge, Learning, and Human–AI Collaboration

The integration of AI significantly reshapes organizational knowledge processes. Machine learning systems process large volumes of data, identify patterns, and generate predictions that exceed human cognitive capacity. Research on human–AI collaboration emphasizes that optimal outcomes often depend on designing complementary roles for humans and algorithms rather than privileging one over the other (Raisch & Krakowski, 2021).

Empirical findings indicate that AI systems can codify tacit knowledge and make it accessible across the organization, thereby flattening expertise hierarchies (Brynjolfsson et al., 2024). In such contexts, AI functions as a knowledge amplifier, enabling less-



experienced employees to perform at higher levels. However, overreliance on algorithmic recommendations may reduce critical oversight and foster automation bias. Therefore, organizations must develop governance structures that maintain human responsibility while leveraging computational advantages.

These developments challenge traditional conceptions of organizational learning, which emphasize human interpretation and experiential adaptation. In AI-augmented settings, learning becomes distributed across human and artificial components, necessitating revised theoretical models.

2.5. Ethical Governance and Institutional Legitimacy

The increasing integration of AI into organizational decision-making has heightened ethical and institutional concerns. Issues related to bias, discrimination, privacy, and explainability have become central to organizational governance. Bélanger and Crossler (2022) argue that organizations must establish formal oversight mechanisms and ethical guidelines to ensure responsible AI use.

Institutional theory suggests that organizations adopt technologies not only for efficiency but also to maintain legitimacy within regulatory and societal environments (DiMaggio & Powell, 1983). In the context of AI, legitimacy increasingly depends on transparent governance practices and responsible data management. As AI systems influence high-stakes decisions, organizations face mounting pressure to demonstrate accountability and fairness.

Overall, the literature indicates a gradual shift from viewing technology as an external tool to recognizing its embedded role in shaping organizational structures and outcomes. Yet existing frameworks remain largely human-centered. Although research on sociomateriality, algorithmic management, and human-AI collaboration offers valuable insights, a comprehensive theory that conceptualizes organizations as hybrid collectives of human and artificial agents remains underdeveloped. This theoretical gap motivates the need for an agentic management perspective.

3. Conceptual Framework: From Human-Centered to Agentic Management

The conceptual framework of this study builds on the premise that artificial intelligence (AI) fundamentally alters the distribution of agency within organizations. Traditional organizational theory assumes that humans exclusively hold decision rights, intentionality, and accountability. In contrast, AI-enabled systems increasingly perform evaluative, predictive, and allocative functions that shape organizational outcomes. The proposed framework of **agentic management** conceptualizes organizations as hybrid systems in which agency is distributed across human and artificial actors. This framework integrates insights from organizational theory, AI research, and sociomaterial perspectives to explain how authority, coordination, learning, and governance are reconfigured in AI-augmented environments.

At the core of the framework lies the concept of **distributed agency**. Classical models of organizational design emphasize bounded rationality and hierarchical coordination to manage information-processing limits (Simon, 1957). However, AI systems significantly expand computational capacity and pattern-recognition capabilities. Empirical evidence shows that AI tools enhance productivity and decision quality, particularly among less-experienced workers, thereby redistributing expertise within organizations (Noy & Zhang, 2023; Brynjolfsson, Li, & Raymond, 2024). These findings suggest that cognitive authority is no longer concentrated solely in experienced human



actors but increasingly embedded in algorithmic systems. Agentic management therefore posits that agency emerges from the interaction between human judgment and machine computation rather than from humans alone.

A second pillar of the framework concerns **hybrid decision architectures**. AI integration requires organizations to redesign decision-making structures to balance automation and augmentation. Raisch and Krakowski (2021) describe how AI simultaneously substitutes and complements human work, creating a paradox that necessitates structural adaptation. Similarly, Shrestha, Ben-Menahem, and von Krogh (2019) argue that organizations must determine which decisions should be automated, augmented, or retained under human control. In agentic management, decision authority is dynamically allocated based on task complexity, ethical sensitivity, and algorithmic reliability. This hybrid architecture recognizes AI as a co-decision-maker within organizational processes.

The third dimension of the framework addresses **algorithmic governance and control**. AI systems increasingly perform managerial functions such as monitoring, evaluation, and task allocation. Research on algorithmic management demonstrates that control mechanisms are being embedded within digital infrastructures, reshaping power relations and discretion (Kellogg, Valentine, & Christin, 2020). In agentic management, authority is partially encoded in algorithmic systems, creating new forms of structural control. This shift challenges traditional hierarchical models and necessitates mechanisms for transparency, auditability, and contestability.

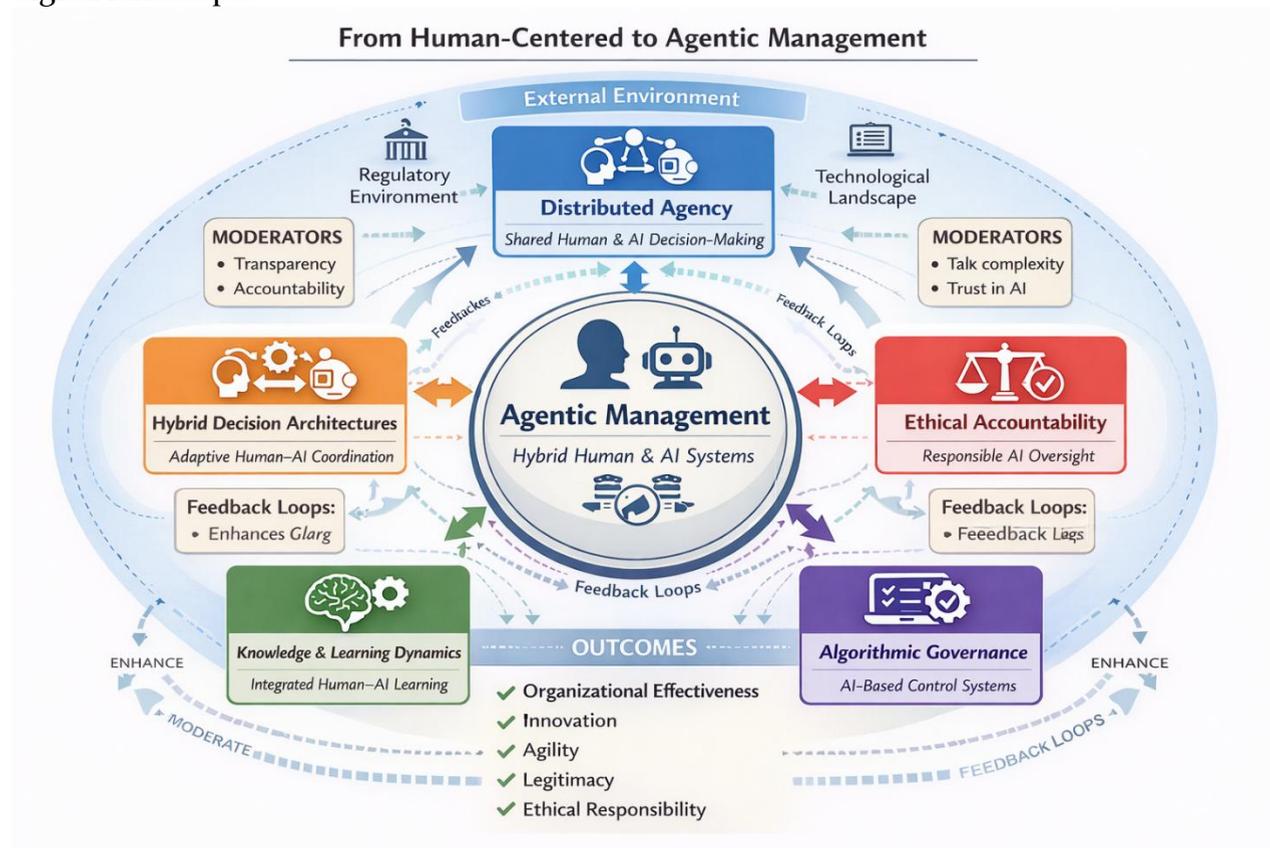
A fourth component involves **knowledge recombination and learning dynamics**. AI systems process large-scale data and generate predictive insights that influence organizational learning processes. Empirical findings indicate that AI assistance can flatten expertise hierarchies and accelerate skill acquisition (Brynjolfsson et al., 2024). From a knowledge-based perspective (Barney, 1991), AI transforms how competitive advantage is generated by enabling scalable codification of tacit knowledge. Agentic management conceptualizes learning as a distributed process in which humans interpret contextual nuances while AI systems identify data-driven patterns. Organizational capability thus emerges from the integration of human sensemaking and algorithmic optimization.

The fifth element of the framework focuses on **ethical accountability and institutional legitimacy**. As AI systems influence high-stakes decisions, organizations face increased scrutiny regarding fairness, bias, and transparency. Bélanger and Crossler (2022) emphasize the importance of governance structures that ensure responsible AI use. Institutional theory suggests that legitimacy pressures shape technological adoption and implementation (DiMaggio & Powell, 1983). Within agentic management, ethical oversight mechanisms must be embedded into algorithmic systems, ensuring that distributed agency does not dilute accountability. Humans retain ultimate moral responsibility, even as AI participates in operational decision-making.

Taken together, the conceptual framework proposes that agentic management is characterized by five interrelated constructs: (1) distributed agency, (2) hybrid decision architectures, (3) algorithmic governance, (4) distributed learning systems, and (5) ethical accountability mechanisms. These constructs interact dynamically. For example, the degree of automation influences governance requirements, while ethical constraints shape

the allocation of decision rights. The framework positions AI not as a peripheral technological tool but as an embedded actor within organizational systems.

The transition from human-centered to agentic management represents a paradigm shift in organizational theory. Rather than viewing organizations as collections of human actors supported by passive technologies, this framework conceptualizes them as socio-technical assemblages in which humans and AI systems jointly generate value. Agency becomes relational and distributed, authority becomes partially encoded in algorithms, and governance becomes a shared responsibility across hybrid systems. This conceptualization provides a foundation for future empirical research examining how organizations design, regulate, and legitimize AI-augmented structures in the evolving digital landscape.



4. Explanation of the Conceptual Model: From Human-Centered to Agentic Management

The proposed model conceptualizes the transition from traditional human-centered organizational structures to **agentic management**, where agency is distributed across human and artificial intelligence (AI) systems. The framework integrates five core constructs—Distributed Agency, Hybrid Decision Architectures, Algorithmic Governance, Knowledge & Learning Dynamics, and Ethical Accountability—embedded within a broader institutional and technological environment and linked to organizational outcomes. Each component is grounded in contemporary management and AI research.

4.1. Distributed Agency

At the top of the model lies **Distributed Agency**, which represents the foundational shift from human-exclusive agency to shared human-AI participation in decision-making.



Classical organizational theory assumes that humans are the sole decision-makers operating under bounded rationality (Simon, 1957). However, AI systems now perform predictive, diagnostic, and generative functions that shape decisions before human intervention occurs.

Empirical studies show that generative AI significantly enhances worker productivity and decision quality, particularly among less experienced employees (Noy & Zhang, 2023). Similarly, field evidence demonstrates that AI assistance increases performance and reduces skill inequality by embedding expertise within systems (Brynjolfsson, Li, & Raymond, 2024). These findings suggest that cognitive authority is increasingly encoded in algorithmic systems.

Raisch and Krakowski (2021) describe this as the automation–augmentation paradox: AI simultaneously replaces and enhances human capabilities. In this model, distributed agency does not eliminate human control but reframes agency as relational—emerging from interaction between human interpretation and machine computation.

4.2. Hybrid Decision Architectures

The second construct, **Hybrid Decision Architectures**, explains how organizations structurally allocate decision rights between humans and AI. Shrestha, Ben-Menahem, and von Krogh (2019) argue that AI integration requires redesigning decision-making structures depending on task analyzability, complexity, and risk.

The model proposes three possible configurations:

- Human-in-the-loop (AI supports; humans decide)
- Human-on-the-loop (AI decides; humans supervise)
- Autonomous AI (AI executes predefined decisions)

Raisch and Krakowski (2021) emphasize that organizations must dynamically determine which tasks to automate and which to augment. This adaptive coordination reflects the feedback loops shown in the diagram: performance data informs adjustments in decision authority allocation.

4.3. Algorithmic Governance

The third component, **Algorithmic Governance**, captures how managerial control becomes embedded in AI systems. Traditional hierarchies relied on supervisors to monitor and evaluate performance. Today, AI-enabled systems allocate tasks, track metrics, and enforce standards in real time.

Kellogg, Valentine, and Christin (2020) demonstrate that algorithmic management reshapes power structures by embedding control mechanisms within digital infrastructures. Authority becomes partially codified into software systems. This structural shift enhances efficiency but raises concerns about transparency and contestability.

From an institutional perspective, such technological embedding also transforms legitimacy dynamics (DiMaggio & Powell, 1983). Organizations must demonstrate that algorithmic governance systems are fair, accountable, and compliant with societal norms.

4.4. Knowledge & Learning Dynamics

The model's fourth construct, **Knowledge & Learning Dynamics**, addresses how AI transforms organizational learning processes. The resource-based view emphasizes knowledge as a primary source of competitive advantage (Barney, 1991). AI expands this by enabling scalable codification of tacit knowledge.



Brynjolfsson et al. (2024) provide empirical evidence that AI assistance accelerates skill acquisition and flattens expertise hierarchies. AI systems can act as knowledge amplifiers, transferring embedded expertise to frontline workers.

However, reliance on AI also introduces epistemic risks, such as automation bias and reduced human critical reflection. The model therefore includes bidirectional feedback loops: human oversight refines AI models, and AI outputs reshape human expertise.

4.5. Ethical Accountability

The fifth dimension, **Ethical Accountability**, ensures that distributed agency does not dilute responsibility. As AI systems influence high-stakes decisions, concerns about bias, discrimination, and opacity intensify.

Bélanger and Crossler (2022) argue that organizations must establish governance frameworks to ensure transparency, auditability, and responsible AI deployment. Ethical accountability remains anchored in human oversight, even when operational control is algorithmically distributed.

Institutional theory suggests that legitimacy pressures compel firms to align AI practices with regulatory and societal expectations (DiMaggio & Powell, 1983). Thus, ethical governance mechanisms moderate how algorithmic systems operate within organizations.

4.6. Moderators and External Environment

The outer layer of the model represents the **external environment**, including regulatory pressures and technological evolution. Transparency requirements, trust in AI, and task complexity act as moderators influencing how distributed agency is implemented.

Technological advancement shapes system capabilities, while regulatory frameworks constrain acceptable practices. This reflects the co-evolutionary relationship between organizations and institutional environments.

4.7. Organizational Outcomes

The model culminates in five primary outcomes:

- Organizational Effectiveness
- Innovation
- Agility
- Legitimacy
- Ethical Responsibility

Empirical research shows that AI adoption enhances productivity and operational efficiency (Noy & Zhang, 2023; Brynjolfsson et al., 2024). However, sustainable benefits depend on balanced governance structures and ethical oversight (Raisch & Krakowski, 2021; Bélanger & Crossler, 2022).

5. Discussion

The transition from human-centered to agentic management represents a structural and cognitive transformation in how organizations function in the age of artificial intelligence (AI). Rather than treating AI as a peripheral tool, the proposed framework conceptualizes organizations as hybrid systems in which agency is distributed across human and artificial actors. This shift alters decision processes, authority configurations, learning dynamics, and accountability structures in fundamental ways.

One of the central insights emerging from the model is that agency within organizations is increasingly relational. Traditional organizational designs were built upon the assumption that humans exclusively interpret information, exercise judgment, and



enact decisions under conditions of bounded rationality (Simon, 1957). However, empirical evidence shows that AI systems now perform predictive and generative functions that materially influence outcomes. Studies demonstrate that generative AI significantly improves task performance and productivity, particularly for less-experienced workers (Noy & Zhang, 2023), and large-scale field research indicates that AI tools embed expertise directly into workflows, reshaping performance distributions across employees (Brynjolfsson, Li, & Raymond, 2024). These developments suggest that decision influence is increasingly co-produced by algorithms and humans.

The model further illustrates how hybrid decision architectures redefine organizational coordination. AI systems filter information, recommend actions, and sometimes execute decisions autonomously. As described in research on human-AI collaboration, organizations must configure decision authority based on task complexity, uncertainty, and ethical sensitivity (Shrestha, Ben-Menahem, & von Krogh, 2019). The resulting structures are neither fully automated nor purely human-driven; rather, they operate through dynamic allocation of decision rights. This hybridization introduces continuous feedback loops, where human oversight refines algorithmic outputs, and AI-generated insights reshape human judgment and routines.

Another key dimension concerns the embedding of control mechanisms within algorithmic infrastructures. Algorithmic management systems allocate tasks, monitor performance, and enforce standards in real time. Research shows that this digital embedding of authority reconfigures traditional power relations and redistributes discretion (Kellogg, Valentine, & Christin, 2020). Control shifts from visible supervisory roles to less visible computational systems. Such transformation intensifies questions of transparency and contestability, particularly when algorithmic processes are opaque.

The discussion also highlights how AI reshapes organizational knowledge and learning processes. AI systems process large-scale data and identify patterns that exceed human cognitive capacity, thereby expanding analytical reach. Empirical findings indicate that AI assistance can flatten expertise hierarchies and accelerate knowledge diffusion across organizations (Brynjolfsson et al., 2024). At the same time, the reliance on algorithmic outputs may generate new epistemic dependencies, requiring continuous recalibration between computational optimization and human contextual interpretation.

Ethical accountability remains a central tension within agentic management. As AI systems influence high-stakes decisions, concerns related to bias, fairness, and explainability intensify. Organizations operate within institutional environments that demand legitimacy and responsible governance (DiMaggio & Powell, 1983). Research underscores the need for oversight mechanisms to ensure that AI systems align with ethical standards and regulatory expectations (Bélanger & Crossler, 2022). In distributed agency contexts, responsibility does not disappear but becomes layered, requiring structured human oversight of algorithmic processes.

Finally, the interaction between internal hybrid systems and the external environment shapes how agentic management evolves. Technological advancement expands AI capabilities, while regulatory frameworks and societal expectations constrain acceptable uses. Trust in AI systems, transparency requirements, and task complexity moderate how distributed agency is implemented in practice. Organizations thus operate within a dynamic ecosystem where technological and institutional forces co-evolve.



In sum, the discussion emphasizes that agentic management represents a systemic transformation rather than incremental digital adoption. Organizations increasingly function as socio-technical assemblages in which authority, knowledge, and control are co-produced by humans and AI systems. The sustainability of this configuration depends on maintaining adaptive feedback loops, preserving human accountability, and ensuring alignment with institutional expectations. The evolution toward agentic management reflects a broader redefinition of organizational life in which agency is no longer singular but distributed across hybrid actors.

6. Theoretical Implications

The transition from human-centered to agentic management generates several important theoretical implications for organizational theory, management scholarship, and socio-technical research.

First, the framework challenges the anthropocentric assumption embedded in classical and contemporary organizational theories. Foundational perspectives, including bounded rationality (Simon, 1957), behavioral theory, and institutional theory, conceptualize organizations as systems designed to coordinate human actors. Decision-making authority, intentionality, and accountability are assumed to reside solely within individuals or collectives of people. However, empirical research demonstrates that AI systems now significantly influence decision quality, productivity, and performance outcomes (Noy & Zhang, 2023; Brynjolfsson, Li, & Raymond, 2024). These findings imply that agency in modern organizations is no longer exclusively human but distributed across human-AI configurations. Theoretically, this necessitates reconceptualizing agency as relational and emergent rather than individual and purely human.

Second, the framework extends decision theory by reframing organizational decision-making as hybrid rather than hierarchical. Research on the automation-augmentation paradox shows that AI simultaneously substitutes and complements human judgment (Raisch & Krakowski, 2021). Traditional theories assume that technology either supports or replaces decision-makers; however, hybrid architectures reveal a more complex interaction where authority is dynamically allocated between humans and algorithms. This calls for a shift from static models of decision rights to adaptive models of distributed cognition and shared authority.

Third, the model advances understanding of organizational control and governance. Studies on algorithmic management indicate that control mechanisms are increasingly embedded within digital infrastructures (Kellogg, Valentine, & Christin, 2020). Traditional control theory centers on managerial supervision, performance monitoring, and bureaucratic rules. In agentic systems, authority becomes partially codified into algorithms, altering visibility, power dynamics, and discretion. Theoretically, this requires integrating insights from control theory with socio-technical perspectives to account for computationally embedded governance structures.

Fourth, the framework enriches the knowledge-based view of the firm. Competitive advantage has long been associated with tacit knowledge and human expertise (Barney, 1991). Empirical evidence shows that AI systems can codify, scale, and distribute expertise across organizational levels (Brynjolfsson et al., 2024). This challenges the traditional assumption that knowledge is primarily embodied in individuals. Instead, knowledge becomes partially embedded in algorithmic systems, transforming how capabilities are



accumulated and sustained. Theoretical models of organizational learning must therefore account for machine learning as a co-evolving knowledge actor within the firm.

Fifth, the framework deepens institutional theory by introducing algorithmic legitimacy as a new dimension of organizational legitimacy. Institutional environments impose normative and regulatory pressures on organizations (DiMaggio & Powell, 1983). In AI-driven contexts, legitimacy extends beyond compliance and performance to include transparency, fairness, and explainability of algorithmic systems. Research highlights the need for ethical oversight and governance structures to manage AI responsibly (Bélanger & Crossler, 2022). Theoretically, legitimacy must now encompass both human and algorithmic decision processes.

Sixth, the concept of agentic management contributes to sociomaterial and socio-technical theory by moving beyond the idea that technology merely shapes practice. Instead, AI systems function as operational participants in organizational processes. Agency emerges from continuous interaction between computational systems and human interpretation. This perspective supports a more integrative theory of hybrid organizational forms in which boundaries between social and technical components are increasingly blurred.

Finally, the framework implies a broader paradigm shift in organizational theory. Rather than viewing organizations as collections of human actors supported by passive technologies, agentic management conceptualizes them as distributed systems of cognition, control, and accountability. The locus of rationality becomes networked across humans and machines. Theoretical development must therefore integrate behavioral decision theory, institutional theory, knowledge-based perspectives, and algorithmic governance research into a unified socio-technical model of the firm.

In summary, the theoretical implications of agentic management lie in reconceptualizing agency, authority, knowledge, and legitimacy within hybrid human-AI systems. The framework calls for a redefinition of core organizational constructs to reflect the distributed, dynamic, and computationally embedded nature of contemporary organizational life.

7. Practical Implications

The shift toward agentic management has significant practical consequences for how organizations design structures, allocate responsibilities, and govern artificial intelligence (AI) systems. As AI becomes embedded in decision-making processes, firms must rethink management practices, workforce design, governance mechanisms, and leadership capabilities.

First, organizations must redesign decision architectures to integrate AI effectively. Research shows that AI can substantially enhance productivity and performance, particularly in knowledge-intensive tasks (Noy & Zhang, 2023; Brynjolfsson, Li, & Raymond, 2024). However, these gains are contingent upon appropriate allocation of decision rights. Managers must determine when AI should provide recommendations, when it should execute decisions autonomously, and when human judgment must remain primary (Shrestha, Ben-Menahem, & von Krogh, 2019). This requires establishing clear human-in-the-loop or human-on-the-loop structures depending on task complexity and risk exposure.

Second, organizations need to invest in AI literacy and capability development. As AI systems influence workflows, employees must develop the ability to interpret algorithmic



outputs, question recommendations, and provide contextual oversight. The automation–augmentation paradox (Raisch & Krakowski, 2021) suggests that firms benefit most when AI complements rather than replaces human expertise. Therefore, workforce development strategies should focus on hybrid skills—combining analytical reasoning, domain expertise, and technological fluency.

Third, algorithmic governance mechanisms must be formally institutionalized. AI-enabled systems increasingly perform monitoring and evaluative functions traditionally handled by managers (Kellogg, Valentine, & Christin, 2020). Organizations should implement audit trails, explainability protocols, and escalation procedures to ensure that algorithmic decisions are transparent and contestable. Governance frameworks should clearly define accountability structures, specifying who is responsible for AI-driven outcomes. Ethical oversight committees or AI governance boards can provide structured review processes.

Fourth, firms must proactively manage ethical and regulatory risks. AI systems can introduce bias, discrimination, or unintended consequences if not properly monitored. Research emphasizes the importance of embedding responsible AI principles into organizational processes (Bélanger & Crossler, 2022). This includes bias testing, fairness evaluations, and compliance with data protection regulations. Organizations operating in highly regulated industries may need continuous regulatory monitoring and documentation practices to maintain legitimacy (DiMaggio & Powell, 1983).

Fifth, leadership roles must evolve toward orchestration and systems oversight. Rather than focusing solely on supervising employees, leaders in agentic organizations coordinate human–AI collaboration. This includes interpreting AI-generated insights, aligning them with strategic objectives, and intervening when algorithmic outputs conflict with ethical or contextual considerations. Effective leadership therefore involves balancing computational efficiency with human judgment.

Sixth, organizational culture must adapt to hybrid work environments. Trust in AI systems plays a critical role in adoption and performance outcomes. If employees either overtrust or undertrust AI outputs, performance may suffer. Organizations should promote transparency regarding how AI systems function, what data they use, and what limitations they possess. Clear communication reduces uncertainty and supports constructive human–AI collaboration.

Seventh, performance measurement systems must be recalibrated. AI integration changes productivity patterns and redistributes expertise. As evidence indicates that AI can flatten skill hierarchies (Brynjolfsson et al., 2024), performance evaluation criteria should reflect collaborative outputs rather than purely individual contributions. Metrics should capture how effectively teams integrate AI tools into workflows.

Finally, strategic planning processes must incorporate AI as a core capability rather than a peripheral technology. Competitive advantage increasingly depends on how effectively firms integrate AI into value creation processes. This requires aligning AI investments with long-term strategic objectives and continuously reassessing the balance between automation and human oversight.

In summary, the practical implications of agentic management emphasize structural redesign, workforce development, ethical governance, and leadership adaptation. Organizations that proactively design hybrid human–AI systems—balancing efficiency



with accountability—are more likely to achieve sustainable performance and legitimacy in the evolving digital landscape.

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