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Generative Artificial Intelligence in Business and Management: A Review of Strategic Opportunities, Organizational Challenges, and Governance Imperatives

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Abstract

Generative artificial intelligence has emerged as a transformative force in business and management, fundamentally altering how organizations create value, make decisions, and manage knowledge. This narrative review synthesizes contemporary scholarship to examine how generative AI functions as a new layer of organizational capability, creating strategic opportunities while simultaneously introducing significant managerial, ethical, and governance challenges. The analysis reveals that generative AI differs fundamentally from prior forms of artificial intelligence through its capacity for content generation, contextual reasoning, and human-like interaction, enabling unprecedented applications in innovation management, strategic decision support, knowledge work transformation, and business model experimentation. However, these capabilities generate corresponding vulnerabilities, including algorithmic hallucination, embedded bias, operational opacity, and organizational over-dependence. The review identifies three major tensions: augmentation versus automation, efficiency versus reliability, and innovation acceleration versus governance lag. Drawing on scholarly sources, this article proposes an integrative framework situating governance and human oversight as essential mediating mechanisms between generative AI capabilities and organizational outcomes. The findings suggest that successful generative AI adoption requires organizations to balance opportunity exploitation with risk mitigation through structured accountability systems, human-in-the-loop protocols, and adaptive governance architectures.

Keywords Business strategy, Organizational capabilities, Governance, Generative artificial intelligence, Knowledge management, Decision support

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Introduction

The public release of advanced generative artificial intelligence systems in late 2022 marked a watershed moment in the relationship between organizations and intelligent technologies [1–3]. Unlike previous generations of artificial intelligence that primarily focused on pattern recognition, prediction, and automation of routine tasks [4], generative AI introduces capabilities centered on content creation, contextual understanding, and interactive

problem-solving [5] that increasingly mimic human cognitive processes [6]. This technological shift has generated both extraordinary enthusiasm regarding productivity gains and innovation potential [7] and profound concern about organizational risks, ethical boundaries, and the future of human work [8, 9].

For business researchers and management practitioners, generative AI presents a complex landscape of simultaneous opportunity and vulnerability. Organizations

across sectors are rapidly experimenting with large language models and generative systems for applications ranging from strategic planning and market analysis to product development and customer engagement [10-12]. The technology's ability to synthesize vast bodies of information, generate novel solutions, and interact in natural language [1] has positioned it as a potentially transformative organizational capability rather than merely a productivity tool [13, 14]. Early evidence suggests that firms integrating generative AI into core business processes can achieve significant improvements in innovation speed [8], knowledge accessibility [15], and decision-making efficiency [16].

Yet the same characteristics that make generative AI valuable also generate distinctive organizational challenges. The probabilistic nature of large language models produces outputs that can be factually incorrect, logically inconsistent, or subtly biased [17] in ways that are difficult to detect and correct [18, 19]. The opacity of these systems creates accountability gaps [20] when machine-generated recommendations lead to adverse outcomes [6, 21]. Moreover, the ease with which organizations can deploy generative AI risks creating new forms of dependency [7] that may erode human expertise and judgment over time [22, 23]. These tensions suggest that generative AI cannot be understood simply as an advanced automation technology [1] but must be approached as a new form of organizational intelligence that requires deliberate governance structures [24, 25].

This narrative review addresses three interconnected questions central to understanding the role of generative AI in contemporary business and management. First, how does generative AI differ from prior forms of artificial intelligence in ways that reshape organizational capabilities and strategic possibilities? Second, what are the principal strategic opportunities and organizational challenges that emerge when firms integrate generative AI into their operations? Third, what governance mechanisms and oversight structures are necessary to realize the benefits of generative AI while mitigating its risks? By synthesizing twenty-nine recent scholarly sources spanning management, information systems, marketing, and innovation studies, this article develops an integrative framework that positions governance and human oversight as essential mediating layers between generative AI capabilities and organizational outcomes.

Literature Synthesis on Generative Artificial Intelligence in Business Research

Distinguishing generative AI from orior artificial intelligence systems

Understanding generative AI's implications for business and management requires first recognizing how it differs from the artificial intelligence systems that preceded it. Prior generations of AI in organizational contexts were predominantly predictive and analytical, designed to identify patterns in structured data, make classifications, and optimize decisions within defined parameters [4, 5, 14]. These systems excelled at tasks such as customer segmentation, demand forecasting, fraud detection, and recommendation generation, but their capabilities were fundamentally bounded by the data structures and decision rules on which they were trained [1, 9, 13].

Generative AI represents a qualitative shift in both capability and application. Built on large language models and transformer architectures, generative systems produce novel content including text, images, code, and strategic analyses that are not merely extracted from training data but synthesized through complex probabilistic reasoning [3, 8, 21]. This generative capacity enables applications that were previously the exclusive domain of human cognition: drafting strategic plans, generating creative marketing content, exploring business model alternatives, and engaging in open-ended problem-solving [10-12]. **Table 1** delineates the structural differences between generative AI and prior AI systems, highlighting a fundamental shift from predictive optimization toward generative and exploratory organizational capabilities.

Table 1. Structural differentiation between generative AI and prior AI: capability logic and organizational implications

Dimension	Prior AI systems	Generative AI systems	Strategic implications
Core function	Prediction and classification	Content generation and synthesis	Shift from optimization to exploration

Output nature	Deterministic or bounded probabilistic	Open-ended, probabilistic, and emergent	Increased innovation potential with uncertainty
Interaction mode	Structured queries and interfaces	Natural language and conversational interaction	Lower cognitive barriers to use
Knowledge role	Extraction from structured data	Synthesis across unstructured knowledge domains	Expansion of knowledge recombination possibilities
Decision role	Decision support within predefined parameters	Generation of alternatives and reasoning pathways	Transformation of strategic decision processes
Reliability profile	High consistency, domain-bounded	Variable reliability with hallucination risk	Trade-off between creativity and accuracy
Transparency	Moderate (model-based explainability)	Low (black-box generative reasoning)	Increased accountability challenge
Scope of application	Task-specific automation	General-purpose cognitive augmentation	Expansion across functional domains

The technological foundations of generative AI also introduce distinctive properties with organizational implications. Handler, Larsen, and Hackathorn emphasize that large language models' ability to process and generate natural language creates new possibilities for decision support that are more accessible and interactive than traditional analytical systems [15]. However, they also note that the probabilistic nature of these models means their outputs are inherently uncertain, requiring decision-makers to develop new capabilities to evaluate and validate machine-generated content [15, 18, 19]. Cao, Li, and Pavlou observe that this uncertainty challenges traditional assumptions about AI reliability and creates new demands for organizational sensemaking around AI outputs [5].

Theoretical perspectives on generative AI in organizations

The emergence of generative AI has prompted scholars to draw on diverse theoretical traditions to understand its organizational implications. Brown and colleagues provide a comprehensive theory-driven analysis, arguing that generative AI fundamentally challenges existing assumptions about organizational knowledge, decision-making, and human agency [1]. Their framework integrates perspectives from institutional theory, practice theory, and sociomateriality to examine how generative AI reconstitutes organizational routines and knowledge practices. They emphasize that generative AI is not simply a tool that organizations use but an active participant that reshapes the contexts in which organizational action occurs [1].

Strategic management scholarship has focused on how generative AI functions as a source of competitive advantage and a driver of business model innovation. Roy and colleagues develop a framework linking generative AI adoption to business model innovation through strategic human resource management, arguing that organizations must simultaneously develop technological capabilities and complementary human capabilities to realize the technology's potential [10]. Jorzik et al. [17] provide a systematic review of AI-driven business model innovation, identifying how generative AI enables firms to reconfigure value-creation, value-delivery, and value-capture mechanisms in ways previously infeasible. Their analysis reveals that generative AI's impact on business models extends beyond operational efficiency to include entirely new revenue streams, customer relationships, and competitive positioning strategies [17, 26].

Knowledge management and organizational learning perspectives have proven particularly generative for understanding the organizational implications of generative AI. Zhang, Zuo, and Yang examine how generative AI affects enterprise innovation performance through knowledge management mechanisms, finding that generative AI can accelerate knowledge creation, facilitate knowledge integration across organizational boundaries, and enhance knowledge application in innovation processes [25]. Kirchner and colleagues provide empirical insights from software development contexts, showing how generative AI functions as both a knowledge repository and a knowledge synthesis tool that transforms how teams access and apply technical knowledge [16]. These studies

suggest that generative AI may fundamentally alter the economics of knowledge work by reducing the costs of knowledge acquisition and synthesis while simultaneously creating new demands for knowledge validation and integration [16, 22, 25].

Generative AI across functional domains

The literature reveals that generative AI's impact varies significantly across functional domains, with distinctive patterns of application and challenge emerging in different organizational contexts. In marketing, generative AI has demonstrated particular promise for content creation, personalization, and customer engagement. Chan and Choi examine development and practices in marketing applications, identifying how generative AI enables firms to produce personalized content at scale, generate novel campaign concepts, and engage customers through conversational interfaces [11]. Kshetri et al. [9] provide a comprehensive analysis of generative AI in marketing, cataloging applications across customer insight generation, content marketing, advertising, and customer service while identifying challenges related to authenticity, bias, and regulatory compliance.

Strategic management scholarship has examined the potential of generative AI for strategy development and strategic decision-making. Vomberg et al. [13] introduce the concept of digital knowledge engineering for strategy development, showing how generative AI can support strategic analysis by synthesizing competitive intelligence, generating strategic alternatives, and evaluating potential scenarios. Doshi et al. [18] provide experimental evidence on generative AI's role in evaluating strategic decisions, finding that large language models can generate evaluations that approach human expert quality while offering greater consistency and scalability. However, they also caution that generative AI's evaluations can reflect biases present in training data and may lack the contextual sensitivity that characterizes expert human judgment [18, 19].

Strategic Opportunities and Organizational Challenges of Generative AI

An integrative framework: The generative AI opportunity–challenge architecture

To synthesize the diverse findings across these literatures and provide a structured framework for analysis, this article proposes the Generative AI Opportunity–Challenge Architecture. This framework conceptualizes generative AI as a new layer of organizational capability that simultaneously generates strategic opportunities and organizational challenges, with governance and human oversight serving as essential mediating mechanisms that shape outcomes.

The framework is organized around a central generative AI capability core that encompasses the foundational capacities of large language models and generative systems: content generation, contextual reasoning, natural language interaction, pattern synthesis, and creative exploration [1, 5, 8]. From this core, two major pathways extend outward. The opportunity pathway describes how generative AI capabilities translate into strategic value through mechanisms such as innovation acceleration, knowledge accessibility, decision-support enhancement, productivity gains, and business model experimentation [10, 17, 26]. The challenge pathway describes how generative AI capabilities create organizational vulnerabilities through mechanisms such as output unreliability, bias amplification, operational opacity, accountability diffusion, and capability dependency [7, 9, 20].

Overlaying both pathways is a governance and human oversight layer that functions as a cross-cutting control mechanism. This layer encompasses formal governance structures, accountability systems, human-in-the-loop protocols, validation processes, and ethical frameworks that determine whether generative AI capabilities produce beneficial or harmful organizational outcomes [1, 6, 18]. Feedback loops connect organizational use of generative AI to ongoing refinement of both governance mechanisms and practice, recognizing that organizations learn and adapt as they gain experience with these systems [22, 25, 27]. **Figure 1** illustrates the Generative AI Opportunity–Challenge Architecture, showing how generative AI capabilities simultaneously produce strategic opportunities and organizational challenges. At the same time, governance and human oversight mediate their translation into organizational outcomes.

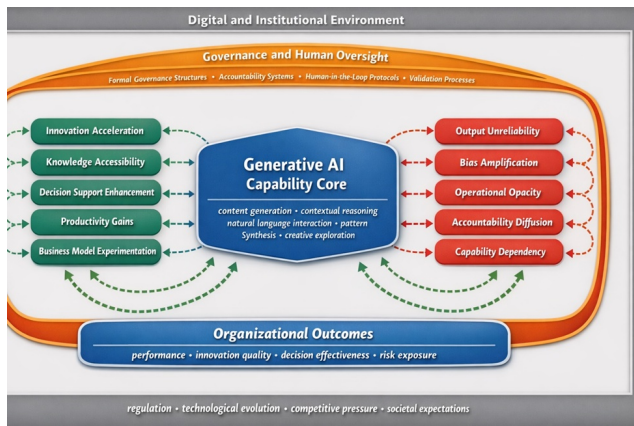


Figure 1. Generative AI opportunity–challenge architecture in organizations

Strategic opportunities: Value creation through generative AI

The opportunity pathway in the framework identifies five interconnected mechanisms through which generative AI capabilities translate into strategic value. Innovation acceleration is among the most widely documented opportunities. Generative AI enables organizations to explore larger solution spaces, generate more diverse ideas, and iterate more rapidly through design alternatives than is possible with human teams alone [3, 8, 21]. Boussioux and colleagues demonstrate that generative AI can match or exceed human performance in creative problem-solving tasks, suggesting that the technology may fundamentally reshape how organizations approach innovation [21]. Similarly, Chiarello and colleagues document how large language models are being used to generate research hypotheses, design experiments, and explore technological possibilities across multiple domains [3].

Decision support enhancement constitutes a third opportunity mechanism. Unlike traditional analytical systems that require users to formulate queries in formal languages, generative AI enables decision-makers to interact with information systems through natural language, reducing cognitive barriers and enabling more iterative exploration of decision alternatives [13, 15, 18]. Handler and colleagues argue that large language models present new possibilities for decision support precisely because they can engage in dialogue, clarify assumptions, and generate explanations that help users understand the basis for recommendations [15]. Doshi and colleagues provide empirical evidence that generative AI can evaluate strategic

decisions with quality approaching that of human experts, suggesting the potential for scalable decision support that complements rather than replaces human judgment [18].

Productivity gains represent a fourth opportunity mechanism that has attracted significant attention in both scholarly and practitioner literatures. Generative AI can automate or accelerate tasks that previously required substantial human effort, particularly in content creation, information synthesis, and routine analysis [2, 23, 28]. Hessari and colleagues demonstrate that generative AI can boost organizational adaptability while reducing workplace overload by handling routine cognitive tasks, freeing human workers to focus on activities requiring judgment, creativity, and interpersonal interaction [23]. Haddud examines ChatGPT applications in supply chain contexts, identifying productivity benefits across demand forecasting, inventory management, logistics planning, and supplier communication [28].

Business model experimentation represents a fifth mechanism for connecting generative AI to fundamental strategic choices about how firms create and capture value. Jorzik et al. [17] identify how AI-driven business model innovation enables firms to reconfigure their value propositions, revenue models, and value chains in ways previously infeasible.

Organizational challenges: Vulnerabilities generated by generative AI

The challenge pathway identifies five interconnected mechanisms through which generative AI capabilities generate organizational vulnerabilities. Output unreliability, including the phenomenon of hallucination, in which models generate plausible but factually incorrect information, represents perhaps the most immediate and visible challenge [17–19]. Generative AI systems produce probabilistic outputs rather than deterministic ones, meaning they can generate incorrect information with high confidence, posing risks when organizations rely on these outputs for consequential decisions [1, 5, 15]. Hoffmann and colleagues examine this challenge in the context of AI-empowered scale development, finding that while large language models can generate useful measurement items, they also produce items that are psychometrically problematic or conceptually misaligned [19].

Bias amplification represents a second critical challenge. Generative AI models are trained on large-scale datasets that reflect historical and social biases, and these models can reproduce or even amplify those biases in their outputs [7, 9, 20]. In marketing contexts, Kshetri and colleagues caution that generative AI may generate content that perpetuates stereotypes or excludes underrepresented groups unless carefully moderated [9]. In strategic decision-making contexts, Doshi and colleagues find that generative AI evaluations can reflect biases present in training data, potentially leading to systematically skewed recommendations [18]. Addressing bias requires both technical interventions to detect and mitigate bias in model outputs and organizational processes to review and validate AI-generated content [1, 6, 20].

Operational opacity constitutes a third challenge. The complexity of large language models makes it difficult to understand why a model generated a particular output, creating what scholars term the black box problem [5, 6, 15]. This opacity complicates efforts to validate outputs, assign accountability for outcomes, and maintain organizational control over AI-driven processes [1, 20]. Handler and colleagues suggest that opacity demands new approaches to decision support that maintain human oversight while leveraging AI capabilities [15].

Accountability diffusion represents a fourth challenge that emerges from the integration of generative AI into organizational processes. When AI systems participate in decision-making and content creation, traditional accountability structures become ambiguous [1, 6, 20]. If a generative AI system produces a flawed strategic analysis that leads to poor decisions, who bears responsibility: the developers who built the system, the managers who deployed it, the users who relied on its outputs, or the organization as a whole? [6, 7, 18]. Mayer and colleagues examine this challenge in the context of digital platform governance, showing how generative AI as a boundary resource complicates accountability relationships between platforms and complementors [20].

Governance, Accountability,
and Human Oversight in
Generative AI Systems

The opportunities and challenges of generative AI converge on a fundamental imperative: realizing its benefits while mitigating risks demands governance architectures that

transcend conventional technology management approaches [1, 6, 7]. Unlike traditional deterministic enterprise systems, generative AI is probabilistic, context-dependent, and capable of unanticipated outputs, operating through external platforms that complicate security, compliance, and control [5, 12, 15, 19]. Governance challenges are therefore deeply organizational and institutional, requiring firms to reconceptualize their relationship with technology from models of control toward oversight and collaboration [1, 6, 20]. Effective governance must engage strategic human resource management functions that address human capabilities, cultural norms, and incentive structures, not merely technical teams [7]. The scale and speed at which generative AI operates—producing vast content, evaluating thousands of alternatives, operating continuously—creates potential for unprecedented productivity alongside systemic harm from biased content or consequential errors, demanding governance that addresses systemic dynamics rather than merely individual outputs [1, 8, 9, 17, 20]. **Table 2** conceptualizes governance mechanisms as mediating structures that dynamically align generative AI-driven opportunities with corresponding organizational risk mitigation processes.

Table 2. Governance mechanisms as mediating structures between generative AI opportunities and organizational risks

Governance mechanism	Opportunity leveraged	Risk mitigated	Mode of intervention
Human-in-the-loop systems	Decision support enhancement	Output unreliability	Ex-ante validation, iterative refinement
Accountability structures	Business model experimentation	Accountability diffusion	Responsibility allocation, traceability
Bias monitoring systems	Knowledge accessibility and personalization	Bias amplification	Continuous detection, corrective measures
Transparency and explainability	Strategic decision support	Operational opacity	Explanation generation, audit trails

explainability tools			interpreta suppo
Risk management frameworks	Innovation acceleration	Capability dependency and systemic risk	Scenar analysis risk containm
Ethical governance frameworks	Market expansion and customer engagement	Reputational and ethical risks	Normati guidance bounda setting
Adaptive learning systems	Productivity gains and process optimization	Over-reliance and skill erosion	Feedba driver recalibra

Multiple governance dimensions are necessary for responsible adoption. Formal governance structures—organizational roles, committees, and decision rights—determine how AI is procured and monitored [7], with top management support critical for establishing strategic direction, allocating resources, and building trust [9, 27]. Accountability systems must address distributed agency, in which responsibility is shared between humans and AI [1], specifying who is responsible for AI-supported processes, how decisions are documented, and how accountability is assigned when errors occur [6, 20]. Risk management processes must address novel categories, including epistemic risks from output uncertainty [7], reputational risks from biased content [17], operational risks from external platform dependency [9], and strategic risks from competitive AI deployment [18, 19, 28]. Together, these governance dimensions form an integrated architecture that balances generative AI’s flexibility and innovation potential [1] with the reliability, accountability, and oversight that organizations require [6, 20, 27].

Governance mechanisms alone are insufficient without human oversight that actively engages with generative AI outputs and intervenes when necessary [1, 6, 18]. The literature distinguishes among different forms of human oversight, ranging from human-in-the-loop systems, where humans review every output [15], to human-on-the-loop systems, where humans monitor system performance and intervene when anomalies are detected [6], to human-in-command systems, where humans retain ultimate authority over consequential decisions [21].

Doshi and colleagues provide evidence for the value of human oversight in strategic decision-making contexts [18],

finding that while generative AI can produce high-quality evaluations, human experts still outperform AI in situations that require contextual sensitivity, ethical judgment, and nuanced understanding of organizational dynamics. Their research suggests that optimal outcomes are achieved not by replacing human judgment with AI [18], but by structuring human-AI collaboration that leverages the complementary strengths of each [6, 21]. Boussioux and colleagues similarly find that generative AI can augment human creative problem-solving [21], but that human oversight remains essential for evaluating, refining, and implementing AI-generated solutions.

The design of human oversight systems requires careful attention to cognitive and organizational factors that affect how humans interact with AI outputs [16, 22, 23]. Quinn and Gutt identify heterogeneous effects of generative AI on knowledge seeking [22], finding that AI availability can reduce engagement with human experts, potentially eroding the social learning processes that support skill development. This suggests that human oversight systems must be designed not only to ensure output quality [7] but also to maintain the human capabilities and social connections that organizations need to function effectively [22, 23]. Hessari and colleagues find that generative AI can reduce workplace overload [23], but caution that organizations must be deliberate about maintaining opportunities for human skill development and experiential learning.

Beyond formal governance structures and human oversight processes, the literature emphasizes the importance of ethical frameworks that guide organizations’ approach to generative AI [1, 9, 20]. These frameworks articulate principles such as fairness, accountability, transparency, and beneficence [7] that shape organizational practices and decisions [6, 25]. Brown and colleagues argue that ethical frameworks for generative AI must address not only the outputs of AI systems [1] but also the organizational contexts in which they are deployed and the societal implications of their use.

Kshetri and colleagues identify ethical challenges specific to generative AI in marketing [9], including issues of authenticity, manipulation, and consumer autonomy. When generative AI produces content that is indistinguishable from human-created content [4], consumers may be unable to distinguish between authentic communication and AI-generated persuasion [11], raising questions about informed consent and consumer protection [9]. Similar

issues arise in human resource management contexts [7], where generative AI used for recruitment or performance evaluation may produce outcomes that are difficult to explain or contest [10].

Roy and colleagues emphasize that ethical frameworks must be embedded in strategic human resource management practices that shape how organizations develop and deploy generative AI capabilities [10]. This includes selecting and training employees who can work effectively with AI systems [7], designing performance management systems that incentivize responsible AI use [10], and fostering organizational cultures that prioritize ethical considerations alongside efficiency and innovation [27]. The integration of ethical principles into organizational practice requires not only formal policies [1] but also informal norms, leadership modeling, and ongoing dialogue about the values that should guide AI adoption [6, 20].

Future Research Directions in Generative AI and Business Management

Theoretical development: Beyond adoption and implementation

While the literature on generative AI in business and management has grown rapidly, significant opportunities remain for theoretical development that goes beyond questions of adoption and implementation [1, 5, 8]. Brown and colleagues argue that generative AI challenges foundational assumptions in organization theory, strategy, and management studies, creating opportunities for theoretical innovation that can reshape these fields [1]. They call for research that develops new theoretical frameworks capable of addressing the distinctive characteristics of generative AI, including its generative capacity, contextual reasoning, and potential for autonomous action [1, 6].

One promising direction is to develop theories of human-AI agency that move beyond traditional distinctions between humans and machines [1, 6, 21]. Krakowski proposes a framework for understanding human-AI agency that recognizes distributed agency as a fundamental feature of generative AI systems rather than a problem to be solved [6]. This perspective suggests that organizations must develop new ways of understanding responsibility,

accountability, and control that are compatible with distributed agency [1, 6, 20]. Future research might explore how organizational routines, decision processes, and governance structures evolve when agency is distributed across human and AI actors [1, 6, 25].

Empirical research: Context, variation, and longitudinal dynamics

The literature reviewed in this article includes conceptual analyses, case studies, and early empirical investigations, but significant opportunities remain for rigorous empirical research that examines generative AI across contexts, organizations, and time [5, 8, 17]. One priority involves understanding how generative AI's effects vary across organizational contexts, industries, and national settings [7, 9, 27]. Early evidence suggests that generative AI's impact differs substantially between knowledge-intensive sectors, such as professional services, software development, and research and development, and operational sectors such as manufacturing, logistics, and customer service [10, 12, 28]. Research that systematically examines these contextual variations could inform both theory development and managerial practice [1, 5, 17].

Longitudinal research represents a second empirical priority. The adoption of generative AI is still in early stages for most organizations, meaning that current research captures initial implementation dynamics rather than mature use patterns [3, 8, 26]. Longitudinal studies that track organizations over time could reveal how generative AI adoption evolves, what adaptation processes organizations undergo, and what long-term effects on capabilities, performance, and work practices emerge [7, 22, 25]. Kumar and colleagues call for research that examines the trajectory of generative AI adoption, identifies factors that distinguish successful from unsuccessful implementations, and understands how organizations learn to use AI more effectively over time [26].

Design and intervention research: Shaping generative AI for organizational value

A third frontier for future research involves design and intervention studies that examine how organizations can shape generative AI systems and practices to produce better outcomes [1, 15, 20]. Unlike natural phenomena that researchers can only observe, generative AI systems are

designed. They can be redesigned to create research opportunities that inform the development of more effective and responsible AI [1, 6, 12]. Handler and colleagues call for research that examines how large language models can be designed to support better decision-making, including features that explain reasoning, indicate uncertainty, and enable users to challenge or refine outputs [15].

Mayer and colleagues examine how generative AI functions as a boundary resource in digital platform contexts, suggesting that platform design decisions shape how complementors use AI and what outcomes emerge [20]. Future research might examine design principles for generative AI governance that balance flexibility for innovation with controls for reliability and accountability [6, 12, 20]. This could include research on technical mechanisms, such as monitoring and auditing systems, and on organizational mechanisms, such as approval workflows and review processes, as well as on institutional mechanisms, such as certification and accreditation systems [1, 6, 20].

Research on the effectiveness of interventions represents a related priority. As organizations develop practices for governing generative AI, opportunities emerge to evaluate which interventions produce desired outcomes [2, 19, 27]. Korzyński and colleagues examine the role of top management support and trust in AI adoption, suggesting that leadership interventions can significantly influence adoption success [27]. Future research might evaluate the effectiveness of different training programs, governance structures, oversight processes, and accountability systems, generating evidence that can inform organizational practice [1, 6, 7].

Implications for Managerial Practice

Strategic implications: Positioning generative AI as organizational capability

For managers, generative AI is not merely an efficiency tool but a strategic capability that reshapes competitive positioning [1, 10, 17]. Success requires deliberate strategies for developing, deploying, and governing AI, not ad hoc adoption [7, 13, 26]. Strategic human resource management is central to building complementary human

capabilities [10]. Organizations must choose strategic paths—from incremental improvements to radical business model reconfiguration—aligned with their resources and context [17, 26]. They must also anticipate how generative AI lowers entry barriers in some industries while intensifying competition in others, leveraging distinctive capabilities that AI cannot replicate [1, 5, 8, 10].

Governance implications: Building systems for responsible AI

Effective governance requires clear accountability structures, dynamic risk management processes, and cultures prioritizing responsible AI use [1, 6, 7, 20]. Top management support is essential for organizational commitment and resource allocation [27]. Risk management must identify specific risks—such as data security, intellectual property, and decision quality—and develop controls tailored to each use case, evolving as organizations and the technology mature [1, 8, 9, 17, 28].

Cultural implications: Fostering responsible AI use

Organizational culture must foster curiosity, critical thinking, and responsibility, empowering employees to question AI outputs, raise concerns, and suggest improvements [1, 2, 6, 7, 25, 27]. Transparency about AI use, capabilities, and limitations builds internal trust and supports compliance [1, 6, 7, 9, 20, 27]. Learning and adaptation should be embedded systematically—capturing lessons, refining practices, and updating governance mechanisms to evolve AI capabilities alongside the technology and competitive landscape [1, 8, 10, 22, 25].

Comprehensive Conclusion

Generative artificial intelligence represents a transformative development for business and management, introducing capabilities that fundamentally reshape how organizations create value, make decisions, and manage knowledge. This review has synthesized scholarly sources to examine how generative AI functions as a new layer of organizational capability, simultaneously generating strategic opportunities and organizational challenges that demand deliberate governance and human oversight. The analysis reveals that generative AI differs from prior forms of artificial intelligence in ways that have profound

implications for organizational practice and management scholarship.

The implications for management scholarship are equally significant. Generative AI challenges foundational assumptions in organization theory, strategy, and management studies, creating opportunities for theoretical development that can reshape these fields. Future research should develop theories of human-AI agency that account for distributed agency in generative AI systems, examine how generative AI transforms organizational knowledge dynamics, and investigate how generative AI affects power relations and inequality within and between organizations. Empirical research should examine generative AI across contexts, organizations, and time, providing evidence that informs both theory and practice. For managerial practice, the implications are clear. Organizations must approach generative AI strategically, positioning it as an organizational capability that requires deliberate development and governance.

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