

REVIEW

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Artificial Intelligence in Business Management: A Critical Review of Decision Authority, Organizational Accountability, and Managerial Trust

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Abstract

Artificial intelligence is becoming increasingly embedded in business management, influencing decisions in strategy, operations, marketing, human resources, finance, and organizational control. Its managerial significance no longer lies only in its capacity to process information faster than humans, but in its growing ability to recommend, rank, predict, allocate, and sometimes decide. This shift raises important questions about how organizations should govern AI when it begins to affect managerial judgment itself. The central problem addressed in this review is that management research has often treated AI as a performance-enhancing tool while giving less sustained attention to its governance consequences. Three tensions remain particularly fragmented: the delegation of decision authority to algorithmic systems, the maintenance of organizational accountability in distributed human-machine arrangements, and the conditions under which managers trust or distrust AI-assisted decisions. These issues are analytically distinct but practically interdependent. The objective of this critical review is to synthesize literature on AI in business management through the integrated lenses of authority, accountability, and trust. Rather than presenting AI adoption as an inevitable route to efficiency, the review interrogates the organizational assumptions behind AI-enabled decision-making. It asks how AI changes managerial discretion, responsibility, oversight, and confidence in organizational decisions. The review concludes that AI governance in management must move beyond technical performance and address the institutional conditions under which AI-assisted decisions are authorized, explained, contested, and trusted. Authority, accountability, and trust should not be treated as separate implementation concerns but as a connected governance triad. Future management research should therefore conceptualize AI not merely as a tool, but as a socio-technical actor that reshapes managerial responsibility and organizational control.

Keywords Artificial intelligence, Governance, Organizational accountability, Critical review, Decision authority, Managerial trust

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Introduction

Artificial intelligence has moved from a peripheral analytics capability to a central component of managerial decision-making across contemporary organizations. Management scholarship increasingly recognizes that AI is not simply another information technology, because it can learn from data, generate predictions, recommend actions, and

reshape how organizational decisions are made [1]. This development has produced the automation–augmentation paradox: AI can extend managerial capability while simultaneously displacing or constraining human judgment [1].

The business management literature has often emphasized AI's potential to improve performance, creativity,

productivity, and decision quality. Studies of AI capability and organizational performance suggest that firms can benefit when AI is embedded in managerial routines, data infrastructures, and innovation processes [2]. Yet this performance-oriented framing risks underplaying the governance dilemmas created when AI systems begin to influence decisions that were previously understood as managerial responsibilities.

A critical problem is that AI changes the locus of decision authority without always making that shift explicit. Organizational decision-making structures increasingly involve hybrid arrangements in which managers, experts, data scientists, and algorithmic systems jointly shape outcomes [3]. Such arrangements complicate the question of who decides, because decision authority may be formally retained by managers while being materially shaped by algorithmic rankings, predictions, and recommendations [4].

This review addresses the need for a more integrated management perspective on AI governance. It argues that decision authority, organizational accountability, and managerial trust must be examined together, because authority without accountability becomes irresponsible delegation, accountability without authority becomes symbolic compliance, and trust without governance becomes managerial vulnerability [5]. The article therefore proceeds by mapping AI in business management, critically reviewing decision authority and oversight, and preparing the basis for later analysis of accountability, trust, research gaps, and implementation implications.

AI in Business Management Context

AI in business management now spans multiple domains, including strategy, operations, marketing, human resources, and organizational decision support. In marketing, AI is used for customer analytics, personalization, targeting, segmentation, and automated interaction, shifting marketing management toward data-intensive prediction and intervention [6]. In human resource management, AI supports recruitment, screening, performance evaluation, workforce analytics, and employee monitoring, but these applications also raise concerns about fairness, privacy, and procedural integrity [7].

The managerial role of AI differs across decision contexts because some systems merely support human judgment

while others actively structure or automate decisions. Decision-support systems provide analysis for managers to interpret, decision-augmentation systems recommend or rank alternatives, and decision-automation systems execute or trigger actions with limited human intervention [8]. This distinction is essential because governance requirements become more demanding as AI moves from informational support to operational decision agency [3].

In strategic and organizational contexts, AI can influence not only isolated decisions but also the routines through which organizations define problems and evaluate knowledge. Research on learning algorithms shows that algorithmic systems can reshape organizational knowing by changing what counts as evidence, expertise, or a valid decision basis [9]. This means that AI adoption is not simply a technical implementation issue, because it affects organizational interpretation, managerial attention, and the distribution of epistemic authority [4].

Despite these implications, much AI management research still assumes that adoption is desirable when it improves efficiency, prediction, or scalability. This assumption is visible in studies that emphasize AI capability, performance, and creativity, but it becomes incomplete if governance risks are treated as secondary implementation barriers rather than central managerial concerns [2]. **Table 1** maps the landscape of AI applications in business management and their decision-making roles.

Table 1. AI Applications in Business Management: Domains, Decision Types, and Levels of Autonomy

Business management domain	Typical AI applications	Dominant decision type	Level of autonomy
Strategy and planning	Market sensing, scenario analysis, strategic forecasting, competitive intelligence	Long-range judgment under uncertainty	Low to medium autonomy, usually advisory or augmented
Operations and supply chains	Demand forecasting, inventory optimization, scheduling, resource allocation	Repetitive optimization and resource allocation	Medium to high autonomy, often semi-automated

	routing, process automation		
Human resource management	Recruitment screening, performance analytics, workforce planning, employee monitoring	Evaluation of people and allocation of opportunities	Medium frequency recommendation based
Marketing and customer management	Personalization, segmentation, pricing support, recommendation systems, customer analytics	Prediction of customer behaviour and targeting decisions	Medium to high frequency dependent on automation
Finance and risk management	Credit assessment, fraud detection, risk scoring, investment analytics	Risk classification and exception detection	Medium to high frequency in rule-based prediction setting
General management control	Performance dashboards, algorithmic monitoring, workflow allocation, compliance analytics	Monitoring, evaluation, and coordination	Medium to high frequency embedded in management routines

The literature distinguishes between augmentation and automation, but this distinction is often insufficient for understanding managerial authority. Augmentation assumes that AI assists human judgment, whereas automation implies that AI replaces certain human decisions, yet many organizational systems operate in between these categories [1]. In hybrid settings, managers may retain veto power but lose interpretive control because the algorithm defines the decision frame, ranks alternatives, or sets thresholds for intervention [11].

Human oversight is commonly presented as the solution to AI-related decision risks, but oversight varies substantially in form and effectiveness. Human-in-the-loop models require human approval before action, human-on-the-loop models allow monitoring and intervention, and human-out-of-the-loop models permit automated execution with limited human involvement [12]. Table 2 contrasts models of decision authority and human oversight in AI-assisted management.

Table 2. Models of Decision Authority and Human Oversight in AI-Assisted Management: Configurations, Risks, and Governance Requirements

Authority model	Decision configuration	Role of the manager	Main risks
Human-led decision support	AI provides information, forecasts, or analysis, but the manager interprets and decides	Primary decision-maker and interpreter	Selective use of evidence, confirmation bias, underuse of valuable AI insights
AI-augmented managerial decision	AI recommends, ranks, or prioritizes options, while the manager approves or modifies the decision	Final approver and contextual evaluator	Automation bias, weak challenge of algorithmic recommendation, symbolic oversight
Shared human-AI authority	Human and AI inputs jointly determine outcomes	Co-producer of the decision	Ambiguity over who has authority and who is accountable

Decision Authority and Human Oversight

Decision authority is one of the most significant but undertheorized consequences of AI adoption in business management. AI systems can appear to leave authority formally with managers while practically narrowing the options managers perceive as legitimate or defensible [3]. This creates a hidden transfer of authority, where algorithmic outputs become default judgments even when human decision-makers remain nominally responsible [10].

	through embedded workflows	with partial discretion	
Human-on- the-loop supervision	AI executes routine decisions while managers monitor system performance and intervene when needed	Supervisor and exception handler	Delayed intervention, deskilling, and excessive confidence in system stability
AI-led automation	AI executes decisions with minimal human involvement	Residual controller or post hoc reviewer	Loss of managerial discretion, opacit and responsibilit gaps

The main danger is that oversight can become symbolic when managers lack the expertise, time, or authority to challenge AI outputs. Research on professionals using opaque AI systems shows that users may either disengage from AI recommendations or defer to them despite limited understanding, especially in high-stakes judgment contexts [11]. Decision authority therefore cannot be governed only by keeping a human formally involved; it requires designing conditions under which human judgment remains informed, empowered, and accountable [13].

Figure 1 presents the integrated authority–accountability–trust framework through which AI-assisted management decisions should be governed.

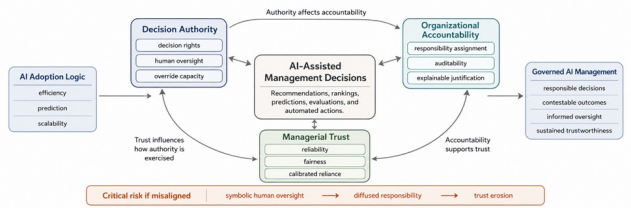


Figure 1. Integrated Governance Framework for AI-Assisted Management: Linking Decision Authority, Organizational Accountability, and Managerial Trust

Organizational Accountability Challenges

Organizational accountability becomes more difficult when AI systems influence decisions through complex data pipelines, model architectures, vendor infrastructures, and managerial workflows. The central challenge is not simply that algorithms may be opaque, but that responsibility becomes distributed across designers, data providers, managers, executives, users, and external technology suppliers [14]. This diffusion creates an accountability gap in which harmful outcomes may be recognized, yet no single actor appears fully responsible for authorizing, explaining, or correcting them.

The “many hands” problem is especially acute in AI-enabled organizations because decision outcomes are often produced by interacting human and technical components. Studies of algorithmic work show that algorithms can become instruments of control while managers and workers contest how decisions are made, interpreted, and enforced [15]. When organizations treat algorithmic outputs as neutral or technical, they may obscure the managerial choices embedded in data selection, model objectives, performance metrics, and implementation rules [16].

Business ethics research emphasizes that algorithmic accountability requires more than compliance with abstract ethical principles. Ethical AI principles can help identify values such as fairness, transparency, and non-maleficence, but principles alone do not guarantee responsible organizational practice [17]. This limitation is visible when firms adopt ethics statements or guidelines without creating enforceable accountability structures, review mechanisms, or channels for affected stakeholders to contest AI-assisted decisions [18].

Recent work on AI governance has begun to define organizational mechanisms for assigning responsibility, managing risk, and aligning AI systems with institutional objectives. Organizational AI governance requires decision rights, monitoring structures, escalation procedures, documentation practices, and cross-functional oversight that connect technical model management to managerial accountability [19]. However, governance frameworks remain limited if they focus on formal structures while neglecting power asymmetries, organizational incentives, and the possibility that AI can rationalize unaccountability

by making managerial choices appear technically inevitable [16].

Managerial Trust in AI-Assisted Decisions

Managerial trust in AI is not a simple attitude of acceptance, but a situated judgment about whether an AI system is competent, reliable, understandable, fair, and aligned with organizational goals. Research on human trust in AI shows that trust depends on both system characteristics and user characteristics, including perceived accuracy, transparency, task context, and prior experience [5]. For managers, trust is especially consequential because AI recommendations can affect resource allocation, personnel evaluation, customer treatment, and strategic priorities.

Trust can develop when AI systems consistently provide useful outputs, but it can also become excessive when managers defer to algorithmic recommendations without adequate scrutiny. The literature on algorithm appreciation shows that people may sometimes prefer algorithmic judgment to human judgment, especially when algorithms are perceived as objective or statistically superior [20]. Yet algorithm aversion research shows that trust can collapse after visible errors, even when comparable human errors would be tolerated more easily [10].

Explainability and transparency are often presented as solutions to mistrust, but their managerial value depends on whether explanations are actionable. If explanations are too technical, too generic, or disconnected from managerial decision rights, they may produce only superficial confidence rather than informed trust [21]. Trustworthy AI therefore requires not only interpretable outputs, but also organizational routines that allow managers to question, override, document, and learn from AI-assisted decisions [22].

Trust is also shaped by ethical and relational concerns, particularly when AI affects people rather than only operational variables. Studies of resistance to medical AI show that individuals may distrust algorithmic judgment when they believe it cannot recognize human uniqueness or contextual nuance [23]. **Table 3** summarises the antecedents, dynamics, and consequences of managerial trust in AI.

Table 3. Managerial Trust in AI-Assisted Decisions: Antecedents, Erosion Factors, and Rebuilding Mechanisms

Trust dimension	Antecedents of trust	Factors that erode trust	Managerial consequences
Technical reliability	Accurate predictions, stable performance, validated outputs	Visible errors, inconsistent recommendations, poor model monitoring	Frustration, decreased selection or adoption
Explainability	Understandable rationale, clear input-output logic, usable explanations	Black-box outputs, technical opacity, unexplained ranking or scoring	Suspicion, application blindness
Fairness and integrity	Evidence of non-discrimination, procedural fairness, ethical safeguards	Biased outcomes, privacy concerns, unfair treatment of employees or customers	Reputation risk, illegitimacy
Managerial control	Ability to question, override, and contextualize AI outputs	No meaningful override, rigid automation, unclear escalation pathways	Discontent, accountability issues
Organizational learning	Feedback loops, post-decision review, continuous improvement	Repeated errors without correction, lack of feedback channels	Disconfirmation, disengagement, stagnation

Critical Gaps in AI Management Research

A major gap in AI management research is the absence of integrated theoretical frameworks that connect decision authority, accountability, and trust. Existing studies often examine AI capability, algorithmic work, ethics, or trust as separate domains, but managerial governance problems

emerge precisely because these dimensions interact [24]. Authority determines who can act, accountability determines who must answer, and trust determines whether AI-assisted decisions are accepted, challenged, or ignored.

A second gap concerns methodological imbalance. Much research on trust in algorithms relies on experiments, vignettes, or controlled decision tasks, which are useful for isolating mechanisms but limited for understanding how trust develops over time in organizations [20]. Field-based studies of AI implementation show that organizational meaning, professional identity, and existing routines strongly shape how AI is interpreted and used in practice [25–27].

A third gap is the limited attention to power and control in AI-assisted management. Algorithmic systems do not merely support decisions; they may redistribute authority, intensify monitoring, standardize judgment, and alter the conditions under which employees and managers can contest decisions [15]. Research on algorithmic management and organizational knowing suggests that AI can reshape workplace control by redefining what counts as legitimate knowledge and whose judgment matters [9].

A fourth gap concerns the practical translation of AI ethics into organizational governance. Reviews of AI ethics tools and guidelines show that organizations need concrete methods for moving from principles to operational practices, yet implementation remains uneven and fragmented [22]. Table 4 consolidates the critical gaps and suggests future research priorities.

Table 4. Critical Gaps in AI Management Research: Deficits in Theory, Method, and Evidence across Authority, Accountability, and Trust

Critical gap	Current limitation in the literature	Why it matters for management research	Future research priorities
Fragmented theorization	Authority, accountability, and trust are often studied separately	AI governance problems arise from their interaction, not from	Developing integrated socio-technical governance frameworks

		isolated variables	
Weak field evidence	Many studies rely on experiments, vignettes, or conceptual argument	Organizational AI use unfolds over time through routines, politics, and learning	Conduct longitudinal field studies of AI-assisted management
Limited attention to power	AI is often framed as efficiency-enhancing rather than control-shaping	Algorithmic systems can redistribute discretion and intensify surveillance	Examine power resistance and contestation in AI-enabled organizations
Underdeveloped accountability models	Responsibility is discussed ethically but less often operationalized organizationally	Firms need clear mechanisms for assigning, auditing, and enforcing responsibility	Study accountability structures and system escape mechanisms
Narrow view of trust	Trust is frequently treated as adoption willingness	Managerial trust includes scrutiny, informed reliance, and justified skepticism	Investigate calibration of trust, contestation, and repair following failures
Insufficient sectoral comparison	Evidence is concentrated in selected domains such as HR, marketing, and expert work	Governance risks differ across strategic, operational, people-related, and customer-facing decisions	Compare governance across sectors, functional areas, and institutional environments

Governance and Implementation Implications

The first implication is that organizations must design explicit decision authority protocols before deploying AI in

management processes. These protocols should specify whether AI is advisory, augmentative, supervisory, or autonomous, and they should clarify when managers may accept, reject, override, or escalate AI outputs [3]. Without such protocols, organizations risk creating informal authority shifts in which algorithmic recommendations become de facto decisions while managers remain formally accountable [1].

The second implication is that AI accountability must be institutionalized through audit structures, documentation practices, and review mechanisms. Business ethics research shows that accountability cannot be delegated to technical teams alone, because algorithmic decisions reflect organizational values, incentives, and governance choices [14]. Organizations therefore need cross-functional AI governance bodies that include management, legal, ethics, information systems, and domain experts rather than treating AI oversight as a narrow compliance function [28].

The third implication is that explainability should be treated as a managerial capability rather than only a technical model property. Managers do not merely need model transparency; they need explanations that support judgment, contestation, and responsibility in specific decision contexts [21]. This requires training managers to interpret AI outputs critically, recognize uncertainty, identify possible bias, and document the reasons for accepting or rejecting algorithmic recommendations [8].

The fourth implication is cultural and leadership-oriented. Leaders must avoid presenting AI as an objective substitute for managerial responsibility, because this framing encourages over-reliance, symbolic oversight, and rationalized unaccountability [16]. Instead, leadership should build an AI-accountable culture in which AI is used to improve decisions while preserving human responsibility, stakeholder contestability, and calibrated trust [29].

Figure 2 translates the review’s critical synthesis into a staged governance pathway for implementing AI responsibly in business management.

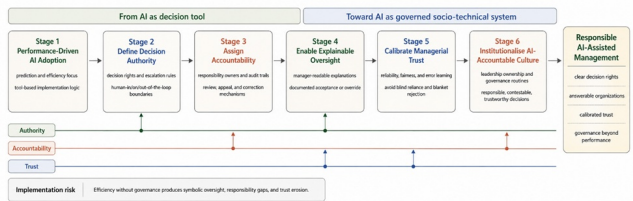


Figure 2. Governance Pathway for Responsible AI Implementation in Business Management: From AI Adoption to Accountable and Trustworthy Decision Systems

Conclusion

This critical review has argued that AI in business management cannot be understood only through the language of performance, efficiency, and prediction. As AI systems increasingly recommend, rank, evaluate, and decide, they alter the governance foundations of managerial work. The most important question is therefore not whether AI improves decisions in general, but under what conditions AI-assisted decisions remain authorized, accountable, and trustworthy.

The review has positioned decision authority, organizational accountability, and managerial trust as an interdependent triad. Authority determines how decision rights are distributed between managers and AI systems, accountability determines how responsibility is assigned and enforced, and trust determines whether managers rely on AI in a calibrated and responsible way. Treating these issues separately risks producing organizations in which AI is powerful but poorly governed.

Future management research should treat AI as a socio-technical governance challenge rather than merely as a technological resource. This requires longitudinal field studies, stronger theory on human-machine authority, deeper analysis of accountability structures, and more nuanced models of managerial trust and distrust. The practical task for organizations is not to choose between human judgment and AI, but to govern their interaction responsibly.

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Ethics statement

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