Leading with AI: Reconfiguring Leadership in Augmented Decision-Making Contexts

Abstract

The growing use of artificial intelligence (AI) as a decision-support tool is reshaping how managers enact leadership in everyday practice. While prior research has primarily examined the technical and performance-related consequences of AI adoption, less attention has been paid to how AI use reconfigures leadership as a socially constructed and reflexively evaluated phenomenon. Building on a leadership-as-practice perspective, this study examines how managers perceive and articulate the implications of AI-based decision-support systems for leadership, focusing on how they construct and sustain managerial competence, authority, and legitimacy in AI-augmented decision-making contexts. Drawing on in-depth semi-structured interviews with ten senior managers from manufacturing and aerospace organizations, we explore how AI is embedded in everyday decision-making and how leaders interpret its impact on their role. The findings show that AI adoption alone does not enhance leadership. Rather, competence emerges from leaders' ability to critically interpret and contextualize AI outputs. Authority is sustained through the retention of final decision rights, whereas legitimacy depends on leaders' capacity to justify AI-informed decisions and remain visibly accountable for outcomes.

Overall, the study advances research on AI and leadership by conceptualizing AI not merely as a decision-support technology, but as a reflexive, symbolic, and relational resource through which competence, authority, and legitimacy are enacted and renegotiated in practice.

1. Introduction

The rapid diffusion of artificial intelligence (AI) in organizational contexts has reignited scholarly interest in how advanced technologies are reshaping managerial work, decision-making, and leadership. From predictive analytics (Ramasamy & Gasm Alsid, 2025) to generative systems (Luengo Vera et al., 2026), AI-based tools are increasingly embedded in organizational processes, promising improvements in efficiency, accuracy, and strategic foresight (Karunakaran et al., 2025).

Rather than using AI as an umbrella term, this study focuses on generative AI based on large language models (LLMs), a subcategory of contemporary AI systems designed to produce novel synthetic outputs across textual and analytical domains. Since the mainstream diffusion of ChatGPT in 2022, these systems have begun to penetrate core areas of knowledge work, supporting report writing, scenario analysis, and strategic reflection - activities central to managerial decision-making and leadership practice (Chalmers et al., 2026). As a result, a growing body of research has examined how AI transforms work practices and organizational roles - yet the implications for leadership as it is enacted and evaluated in everyday managerial life remain less clearly understood.

A major reason for this gap is that much of the literature has approached leadership through a technologically deterministic lens, framing AI either as a substitute for human judgment or as a threat to managerial authority (Ramaul et al., 2025; Hossain et al., 2025). Studies on algorithmic management, for instance, highlight risks related to de-skilling, loss of autonomy, and the erosion of human agency when decision-making is delegated to algorithms (Kellogg et al., 2020). Other contributions emphasize ethical concerns such as opacity, bias, and accountability, particularly when AI systems are used in high-stakes managerial decisions (Cecez-Kecmanovic, 2025). Within these accounts, leadership tends to be discussed implicitly - often as something that AI might undermine or replace - rather than as a phenomenon requiring explicit theoretical articulation.

At the same time, a parallel stream of research has increasingly challenged substitution-based views by conceptualizing AI as a complement to human cognition rather than a replacement. Building on the distinction between automation and augmentation (Davenport & Kirby, 2016; Raisch & Krakowski, 2021), scholars argue that many AI applications in organizations function as decision-support tools that extend managers' analytical capacity by supporting information processing, pattern recognition, and scenario exploration (Jarrahi, 2018). This shift from automation to augmentation has important implications: AI may not "take over" managerial work, but can still reshape how managers think, interpret information, and justify choices in practice.

These developments place decision-making at the center of contemporary managerial work. However, while decision-making is certainly a core component of leadership, leadership cannot be reduced to decision outcomes or to cognitive choice processes alone. Leadership research has long emphasized that leadership involves processes of meaning-making and social recognition, through which competence, authority, and legitimacy are constructed and sustained (Smircich & Morgan, 1982; Suddaby et al., 2017). From this perspective, decision-making matters not simply as an analytical act, but as an arena in which leaders must explain, justify, and stand behind choices - especially under uncertainty and complexity. In other words, managerial decision-making is a key site where leadership is enacted and evaluated, but it is not equivalent to leadership.

Recent work has begun to link AI adoption more explicitly to leadership by emphasizing digital and AI-driven leadership capabilities - such as orchestrating technologies, leveraging AI insights responsibly, and aligning AI use with organizational goals (Hossain et al., 2025; Sacavém et al., 2025). While this literature represents an important step forward, it largely adopts a normative and capability-oriented lens, focusing on what leaders should be able to do in AI-rich environments. As a result, leadership often remains conceptualized at an abstract level, with limited attention to how AI use shapes leadership as it is experienced, enacted, and reflexively evaluated in everyday managerial practice.

What remains theoretically underdeveloped is how AI-based decision-support systems reconfigure leadership as a social and relational phenomenon. If leadership is sustained through meaning-making, justification, and recognized accountability (Smircich & Morgan, 1982; Suddaby et al., 2017), then AI-augmented decision-making may reshape the very grounds on which leaders claim and maintain competence, authority, and legitimacy. Yet we still know relatively little about how managers themselves interpret these shifts when describing their everyday work with AI (Sacavém et al., 2025). This gap is particularly salient in contexts of augmented decision-making, where AI does not replace managerial judgment but becomes embedded in the practices through which decisions are interpreted, explained, and defended (Jarrahi, 2018; Raisch & Krakowski, 2021).

Building on a leadership-as-practice perspective, this study conceptualizes leadership not as a set of individual traits or performance outcomes, but as a socially embedded and relational practice that is continuously constructed and evaluated through everyday interactions (Crevani et al., 2010). Importantly, we do not examine legitimacy or authority as directly attributed by followers, but rather as understood and reflexively articulated by managers themselves when discussing their leadership role in AI-augmented decision-making.

Accordingly, we ask: *How does the use of AI-based decision-support systems reshape leadership?* Drawing on in-depth semi-structured interviews with ten leaders from manufacturing and aerospace organizations, we examine how managers describe the use of AI in everyday decision-making and how they interpret its implications for leadership. By addressing this question, the study contributes to the emerging literature on AI and leadership by shifting attention from automation and substitution narratives toward AI as augmented decision-making, and by offering empirical insights into how leadership as a social practice is reconfigured in AI-augmented organizational settings (Davenport & Kirby, 2016; Jarrahi, 2018; Raisch & Krakowski, 2021). Rather than merely validating existing accounts of AI as decision support, this study theorizes AI as a reflexive and symbolic resource in leadership practice. This study is part of an ongoing research project. The findings presented in this paper are based on the first ten semi-structured interviews and should be considered preliminary. Data collection is still in progress, and an additional ten interviews will be conducted by May 2026. The extended dataset will allow for further theoretical refinement and strengthening of the emerging framework.

2. Theoretical Framework

2.1. Leadership as a social and relational practice

Leadership has been conceptualized in the literature through a variety of lenses, including trait-based approaches, leadership styles, and individual capabilities. While these perspectives have contributed

important insights into who leaders are and what leaders do, they tend to conceptualize leadership as an attribute of individuals rather than as a socially embedded phenomenon. In contrast, a growing body of research has emphasized leadership as a process that is continuously constructed through interaction, interpretation, and social recognition. From this perspective, leadership is understood not as a fixed role or a set of personal characteristics, but as a relational and practice-based phenomenon that emerges through everyday organizational activities (Smircich & Morgan, 1982; Crevani et al., 2010). Leadership is enacted through processes of meaning construction, and justification, whereby leaders seek to establish and sustain shared understandings of situations, actions, and outcomes. Crucially, leadership effectiveness does not derive solely from decision quality or technical expertise, but from the extent to which leaders are recognized as competent, authoritative, and legitimate by relevant audiences. Within this tradition, competence, authority, and legitimacy are not treated as given or stable attributes, but as socially constructed and continuously negotiated. Competence refers not only to technical knowledge or analytical skill, but to the ability to interpret situations, integrate multiple sources of information, and justify actions in ways that resonate with others. Authority reflects the socially recognized right to influence decisions and actions, while legitimacy concerns the broader acceptance of leadership claims as appropriate, credible, and justified within a given institutional context (Suddaby et al., 2017). Importantly, these dimensions are enacted and evaluated through concrete organizational practices. Leadership is therefore not exercised in the abstract but is continuously performed and assessed in everyday activities such as meetings, discussions, and, most notably, decision-making. From a leadership-as-practice perspective, decision-making represents a central arena in which competence, authority, and legitimacy are constructed, challenged, and reaffirmed over time.

2.2 Decision-making as a core leadership practice under conditions of complexity

Managerial decision-making has long been conceptualized as a boundedly rational process, shaped by cognitive limitations, incomplete information, time pressure, and uncertainty (Simon, 1957; March

& Simon, 1958). Rather than engaging in exhaustive optimization, managers rely on heuristics, experience, and judgment to navigate complex organizational environments. These constraints are further intensified in contemporary organizations characterized by increasing data availability, environmental turbulence, and competing interpretations. Under such conditions, decision-making is not merely a technical or analytical activity, but a process of sensemaking through which managers interpret ambiguous situations and construct plausible accounts that enable action. Leadership, in this context, involves framing problems, selecting relevant information, and articulating rationales for decisions that others can understand and accept. Decision-making thus becomes a key site where leadership is enacted, as managers must not only decide, but also explain, justify, and take responsibility for their choices.

In this sense, decision-making is analytically relevant not as a purely cognitive outcome, but as a practice through which leadership is performed and socially evaluated. This understanding of decision-making is particularly important when considering the role of advanced technologies. As new tools become embedded in decision processes, they do not simply alter how decisions are calculated but also reshape the practices through which leadership is enacted and recognized.

2.3 Artificial intelligence, augmented decision-making, and leadership

Research on artificial intelligence in organizations has increasingly distinguished between different logics of AI integration, most notably automation and augmentation (Davenport & Kirby, 2016; Raisch & Krakowski, 2021). Automation-oriented approaches conceptualize AI as a substitute for human judgment, emphasizing efficiency gains and the delegation of decision authority to algorithms. In contrast, an augmentation logic frames AI as a complement to human cognition, designed to support rather than replace managerial judgment. Within an augmentation perspective, AI supports rather than replaces managerial judgment, producing outputs that require human interpretation and evaluation. While prior research has examined the implications of augmented decision-making for decision quality and performance, its consequences for leadership as a social and relational practice

remain less explored. When AI becomes embedded in decision-making practices, it also becomes embedded in leadership practice. AI-based systems may influence how leaders demonstrate competence, enact authority, and sustain legitimacy by reshaping what counts as relevant knowledge, how decisions are justified, and how accountability is articulated. Emerging work on digital and AI-driven leadership has begun to address these issues by emphasizing leaders' capabilities to orchestrate technological resources and integrate AI insights responsibly (Hossain et al., 2025; Sacavém et al., 2025). However, this literature has largely focused on normative prescriptions and capability frameworks, offering limited insight into how leaders themselves interpret and experience the implications of AI use for leadership in everyday practice. Building on a leadership-as-practice perspective, this study conceptualizes AI-augmented decision-making as a critical context in which leadership is enacted and evaluated. Rather than treating AI as an external force that replaces leadership, we examine how AI reshapes the practices through which leaders interpret situations, justify decisions, and assume responsibility. This approach allows us to investigate how competence, authority, and legitimacy are constructed and sustained in AI-augmented organizational settings. Rather than showing that AI supports but does not replace human decision-making, this study shows how AI becomes a reflexive, symbolic, and relational resource through which managers enact, justify, and renegotiate leadership.

3. Methodology

This study adopts a qualitative research design to explore how managers make sense of and enact leadership in contexts of AI-augmented decision-making. Given the exploratory nature of the research question, we relied on semi-structured interviews, which are well suited for examining how individuals articulate experiences and reflect on complex organizational phenomena (Kvale & Brinkmann, 2009; Guest et al., 2012).

We conducted ten semi-structured interviews with managers working in organizations where AI-based systems are used to support managerial activities. The interviews were conducted online,

recorded with participants' consent, and lasted approximately 60 minutes each. All interviews were conducted in Italian, the participants' native language, to facilitate openness and depth of reflection. The interview guide focused on managers' experiences with AI-based decision-support systems and their implications for leadership. Interviews typically began with general questions about the participant's role, organizational context, and experience with AI-based tools. Subsequent questions explored how AI was used to support managerial decisions and how participants evaluated its influence on their leadership practices.

All interviews were audio-recorded and transcribed verbatim. To ensure accuracy and comparability for analysis and publication, transcripts were translated into English using a back-translation procedure, whereby translations were independently checked and compared to the original Italian versions to preserve meaning and nuance (Brislin, 1980).

3.1. Data Analysis

Data analysis followed an informed thematic analysis (Braun & Clarke, 2021). While remaining observant to patterns emerging from the data, the analysis was guided by prior literature on leadership and AI, which sensitized us to issues of competence, authority, and legitimacy in AI-augmented decision-making contexts. These concepts did not function as predefined categories imposed on the data, but as analytical lenses orienting attention toward how managers articulated and justified leadership in relation to AI use.

The analytic process unfolded in three iterative phases. First, we engaged in initial coding, identifying segments of the interview material in which participants described their use of AI-based decision-support systems, reflected on their role in decision-making, and discussed issues of responsibility, credibility, and leadership. Coding remained close to participants' language and focused on how meanings and evaluations were expressed in their accounts.

Second, we developed candidate themes by examining relationships among codes and grouping them into broader patterns that captured recurring ways in which managers described the implications of

AI for leadership. At this stage, particular attention was paid to emerging concepts of competence, authority, and legitimacy in AI-augmented decision-making situations as articulated by managers. Third, themes were reviewed, refined, and defined through iterative comparison between the data and the emerging analytical structure. This process allowed us to develop a coherent thematic account of how leadership is interpreted and justified by managers when AI is used as a decision-support tool. To enhance analytical rigor, all authors initially read the same interview transcript and discussed preliminary interpretations. Subsequently, two researchers independently coded all interviews following an iterative process that involved continuous movement between empirical material and emerging themes. Differences in interpretation were discussed until consensus was reached. This collaborative analytic process helped strengthen the credibility and robustness of the findings (Miles & Huberman, 1994). Following an informed thematic analysis (Braun & Clarke, 2021), we structured our analysis across three levels: first-order codes closely reflecting participants' language; second-order themes capturing recurring patterns across interviews; and three aggregate dimensions - competence, authority, and legitimacy - that integrate the findings at a higher level of abstraction.

3.2. Sample

To examine how managers experience and interpret leadership in AI-augmented decision-making contexts, we conducted semi-structured interviews with senior managers across multiple organizational settings. Table 1 summarizes the main characteristics of the interview sample. The participants held senior managerial positions across manufacturing and aerospace organizations, with substantial organizational tenure and direct responsibility for decision-making processes. This composition ensured rich insights into leadership practices in AI-augmented decision-making contexts. The empirical setting of manufacturing and aerospace organizations is theoretically significant for this study. Both sectors are highly data-intensive, technologically sophisticated, and characterized by strong regulatory oversight. Decision-making processes are often structured, traceable, and subject to formal accountability requirements. Moreover, aerospace in particular can

be interpreted as a high-reliability context, where errors may have substantial safety, financial, and reputational consequences (Castañé et al., 2022; Trunk et al., 2020). In such environments, leadership is closely intertwined with responsibility, risk management, and justification practices. This makes these sectors especially relevant for examining how AI-based decision-support systems intersect with competence, authority, and legitimacy in leadership practice.

Interview Code	Role	Industry/Sector	Gender	Interview Duration	Seniority in Company
L1	CEO	Manufacturing	Male	63 m	11 years
L2	Commercial Director	Aerospace	Male	75m	5 years
L3	Head of Risk Management	Aerospace	Female	53m	20 years
L4	Business Controller	Aerospace	Male	61m	17 years
L5	Procurement Category Manager	Aerospace	Male	48m	16 years
L6	IT Executive/Infrastructure Director	Aerospace	Male	64m	37 years
L7	Operations Manager	Manufacturing	Male	50m	12 years
L8	HR Director	Aerospace	Male	75m	15 years
L9	Digital Transformation Manager	Aerospace	Male	60m	10 years
L10	Strategy & Planning Director	Aerospace	Male	55m	18 years

Table 1: authors' own elaboration

Taken together, the characteristics of the interview sample ensured access to informed leaders' perspectives on how AI-based decision-support systems are used and interpreted in everyday leadership practice

4. Findings

The analysis identified three analytically distinct but empirically interconnected aggregate dimensions through which managers interpret leadership in AI-augmented decision-making contexts: competence, authority, and legitimacy. While these dimensions are closely intertwined in practice, our analysis differentiates them conceptually. Competence refers to leaders' interpretive and critical engagement with AI outputs; authority concerns the retention of final decision rights; and legitimacy relates to the justification and acceptance of AI-informed decisions within the organizational context.

4.1. Augmented competence: AI as a reflexive and interpretive resource

Across organizational roles and levels of seniority, participants described AI-based tools as a means to extend their analytical and interpretive capacity, rather than as systems capable of making decisions autonomously. AI was frequently framed as a second opinion to see things differently, reinforcing rather than displacing human judgment.

As one senior executive explained:

"We do our job first. Then we look at what the AI says. It's an additional perspective, not something that replaces our work." (Interviewee 1, CEO, manufacturing)

Similarly, a commercial director described AI as a way to accelerate understanding and broaden the scope of analysis, while maintaining personal responsibility for decisions:

"I don't use it to decide for me. I use it to understand better, faster. The decision is still mine." (Interviewee 2, Commercial Director, aerospace)

This pattern suggests that AI functions less as an autonomous decision-maker and more as a socially embedded support for managerial interpretation, shaping how information is interpreted, discussed, and mobilized within leadership practices. Importantly, participants emphasized that AI outputs required interpretation, validation, and contextualization - activities that are not merely cognitive, but inherently social and grounded in ongoing interactions, negotiations, and judgments. Participants did not describe AI merely as a tool for improving decision accuracy, but as a resource that prompted reflection on their own role as decision-makers. Referring to AI as a "second opinion" allowed managers to reaffirm their position as final decision-makers, explicitly differentiating human judgment from algorithmic input. In this sense, AI became a reflexive device through which leaders articulated what it means to "decide responsibly" in AI-augmented contexts.

4.2. Enacting authority: retaining decision rights in AI-augmented contexts

While competence concerns interpretive capability, authority refers to the socially recognized right to decide and exercise final judgment. Participants consistently emphasized that AI does not replace their decision-making role, and that final responsibility for decisions remains human. As noted above, managers reaffirmed that "the decision is still mine," underscoring their decisional authority. This insistence on decisional primacy reflects a form of boundary work through which leaders reaffirm their authority in AI-augmented contexts. AI was described as supportive rather than substitutive, and participants resisted framing algorithmic systems as alternative sources of decision power.

One participant captured this concern explicitly:

"The problem is not using AI. The problem is hiding behind it. People still expect you to take responsibility." (Interviewee 4, Procurement Manager, aerospace)

Here, authority is not portrayed as undermined by AI use per se, but as contingent on leaders' willingness to assume ownership of decisions rather than deflecting agency onto algorithmic systems. By explicitly rejecting the possibility of "hiding behind the AI," managers reinforced their role as ultimate decision-makers.

Authority, therefore, is sustained through the retention of final decision rights and the explicit assertion that AI does not displace human judgment. In this sense, AI becomes embedded in leadership practice without eroding the hierarchical and organizational recognition of managerial authority.

4.3. Sustaining legitimacy: justification and visible accountability

While authority concerns the right to decide, legitimacy concerns the acceptance of those decisions as appropriate, credible, and justified within the organizational context. Participants' accounts suggest that legitimacy in AI-augmented settings depends less on the presence of AI itself and more on how AI-informed decisions are explained and justified.

Managers emphasized that invoking AI outputs without contextual explanation could undermine their credibility:

"If someone says, 'the AI said so, therefore it's right', that's when you lose credibility. You still have to know what you're talking about" (Interviewee 3, Head of Risk Management, aerospace)

Legitimacy thus emerges through discursive and relational work, in which leaders integrate AI insights into a reasoned account that others can understand and evaluate. AI outputs alone do not generate acceptance; rather, they must be embedded within a broader justificatory narrative.

This emphasis on accountability was articulated clearly by another participant:

"At the end of the day, if something goes wrong, it's not the algorithm that answers for it. It's you." (Interviewee 5, IT Executive, aerospace)

Here, legitimacy is linked to visible accountability. Participants recognized that organizational audiences ultimately hold leaders - not algorithms - responsible for outcomes. By remaining accountable and transparent about how AI informed their decisions, managers sustain their legitimacy even in technologically complex environments.

Taken together, the findings show that AI affects authority and legitimacy in distinct ways. Authority is preserved through the retention of final decision rights, whereas legitimacy is sustained through

explanation, transparency, and visible accountability. AI does not automatically confer legitimacy; instead, it becomes a resource that leaders must actively integrate into socially acceptable and credible decision-making practices.

5. Discussion

This study examined how AI-based decision-support systems reshape leadership in contexts of augmented decision-making. Rather than asking whether AI replaces or merely supports human judgment, our findings shift attention to how AI becomes implicated in the enactment of leadership itself.

In this respect, the contribution of the study goes beyond confirming existing accounts of AI as a complement to human cognition. While prior research on augmented decision-making emphasizes that AI supports rather than replaces human judgment (Jarrahi, 2018; Raisch & Krakowski, 2021), our findings show that managers actively use AI to reflect on and articulate what it means to decide responsibly. Referring to AI as a "second opinion" is therefore not merely a description of how decisions are made, but a reflexive move through which leaders reaffirm their position as final decision-makers and draw boundaries between algorithmic input and human judgment. AI thus becomes embedded in leadership practice not only as a source of information, but as a device through which leaders make sense of and defend their decision-making role.

From a leadership-as-practice perspective, this reflexive engagement with AI has important implications for how managerial competence is constructed and evaluated. Rather than being associated with the mere adoption of advanced technologies, competence in AI-augmented contexts emerges from leaders' ability to interpret, contextualize, and critically engage with AI outputs. Our findings suggest that AI makes competence more visible and contestable, as leaders are expected not only to use AI-generated insights, but also to explain their relevance, recognize their limits, and integrate them with experiential knowledge. In this sense, competence shifts from technical

proficiency toward interpretive and justificatory work, through which leaders demonstrate judgment, understanding, and situational awareness.

The findings also contribute to ongoing debates on authority and legitimacy in AI-enabled organizations. Much of the existing literature expresses concern that reliance on AI may undermine managerial authority by introducing alternative sources of expertise and decision-making power. From an institutional perspective, however, authority and legitimacy derive not from decision tools themselves, but from socially recognized competence and accountability (Suddaby et al., 2017). Our study advances this discussion by showing how authority and legitimacy are not passively affected by AI adoption, but actively enacted and negotiated by managers in practice. Participants' emphasis on retaining responsibility and "not hiding behind the AI" reflects forms of discursive and symbolic boundary work through which leaders protect and reaffirm their authority. Rather than delegating responsibility to algorithms, managers use AI to support their decisions while explicitly maintaining accountability for outcomes, thereby reinforcing their legitimacy as decision-makers.

Importantly, this boundary work highlights that AI does not simply coexist with leadership authority but becomes a resource through which authority is renegotiated. By making decision processes more transparent and open to scrutiny, AI increases the need for leaders to justify their choices and stand behind them. In this sense, legitimacy shifts from "knowing the right answer" to "knowing how to decide with advanced tools," aligning with emerging views of leadership as orchestration, in which leaders coordinate human and technological resources while remaining accountable for decisions (Raisch & Krakowski, 2021). AI thus becomes part of the social context through which authority and legitimacy are continuously enacted, rather than an external force that replaces or diminishes leadership.

Finally, the findings point to a broader reconfiguration of leadership practices in AI-augmented contexts. By alleviating part of the analytical workload associated with data processing and scenario evaluation, AI allows leaders to reallocate time and attention toward relational and strategic aspects of leadership, such as communication and coordination. However, this shift does not reduce the

importance of analytical work; rather, it repositions analysis as an enabling foundation for leadership practices that are fundamentally relational and interpretive. Taken together, these insights show that augmented decision-making constitutes a critical condition through which leadership is reshaped in AI-rich organizational settings, highlighting leadership not as a function displaced by technology, but as a practice reconfigured through reflexivity, justification, and accountability.

5.1. Limitations

As with any qualitative study, this research has limitations that should be acknowledged. First, the study is based on a relatively small sample of senior managers, which limits the generalizability of the findings. While this is consistent with the exploratory and interpretive aims of the research, future studies could examine whether similar patterns emerge across larger or more diverse populations.

Second, the data rely on self-reported accounts, which may be subject to social desirability bias or retrospective rationalization. Participants' descriptions of their use of AI and leadership practices may therefore foreground competence and responsibility in ways that cannot be independently verified. Future research could complement interview data with observational or longitudinal designs that trace leadership practices as they unfold over time and across situations.

Third, the study focuses primarily on managers operating in complex, highly regulated, and technology-intensive sectors. Leadership dynamics in AI-augmented decision-making may differ in other organizational contexts, such as small firms, less regulated industries, or organizations with lower levels of digital maturity.

5.2. Managerial Implications

Beyond their theoretical contributions, the findings offer important implications for organizations seeking to integrate AI-based decision-support systems into managerial work. First, organizations should avoid equating AI adoption with automatic leadership enhancement. The findings show that leadership in AI-augmented contexts does not improve simply through the introduction of advanced

technologies; rather, competence emerges from leaders' ability to critically interpret, contextualize, and selectively engage with AI outputs. This suggests that organizations should complement technological investments with initiatives that foster reflective and critical engagement with AI-generated insights, legitimizing managerial judgment as an essential counterpart to algorithmic analysis.

Moreover, leadership development in AI-augmented contexts should move beyond a narrow focus on technical proficiency and instead emphasize interpretive and justificatory capabilities. Leaders need to be equipped not only to use AI tools, but also to assess their limitations, integrate them into broader organizational considerations, and explain AI-informed decisions to relevant audiences. Such skills are crucial for sustaining both authority - through the retention of decision rights - and legitimacy - through transparent justification and visible accountability. However, realizing this potential requires intentional organizational design choices. Roles, workflows, and performance evaluation systems may need to be adjusted to recognize and reward leadership work related to supporting others, coordinating across functions, and communicating decisions. Without such alignment, AI may increase analytical capacity without translating into meaningful changes in leadership practice.

5.3. Future research

This study opens several avenues for future research. First, future studies could adopt a longitudinal perspective to examine how leadership practices and perceptions evolve as AI systems become more deeply embedded in organizational routines. Such research could explore whether augmented decision-making stabilizes over time or gives rise to new tensions.

Second, comparative studies across sectors or organizational contexts could investigate how institutional environments shape the relationship between AI use and leadership legitimacy. Differences in regulation, risk, and cultural expectations may significantly influence how AI-augmented leadership is enacted and perceived.

Third, future research could explore follower perspectives more explicitly, examining how employees interpret leaders' use of AI and how this shapes trust, engagement, and perceptions of fairness. This would deepen understanding of leadership as a relational and socially constructed phenomenon in AI-enabled organizations.

Finally, quantitative or mixed-methods studies could build on the qualitative insights presented here to test relationships between AI use, leadership competence, and legitimacy at scale, further advancing theory development in the emerging field of AI and leadership.

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