

AI-MEDIATED STRATEGIZING: THE TRANSFORMATIVE ROLE OF GENERATIVE AI IN ORGANIZATIONAL SENSE MAKING AND STRATEGIC DECISION-MAKING

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Abstract

Background: Volatile, uncertain, complex, and ambiguous environments are becoming a common part of organizations operations and traditional strategic decision making methods are sometimes proving to be inadequate. Generative AI (GenAI) is a powerful technology that significantly improves the sensemaking and strategic cognition of organizations, through advanced data synthesis, scenario generation and interpretive support.

Aim: This research is aimed at understanding how generative AI systems can enhance the effectiveness of strategic decision-making by transforming the sensemaking processes of organizations through AI mediated strategizing.

Methods: The method used in this work is a qualitative conceptual research with an approach of integrative literature. The method used in this work was qualitative conceptual research with approach integrative literature. Peer-reviewed articles from academic databases published in the time between 2021 and 2026 were systematically reviewed. Thematic synthesis was employed to uncover central constructs of AI-augmented cognition, strategic foresight and hybrid decision-making systems.

Results: The findings show that generative AI can have a significant impact on the sensemaking process within an organisation, by improving environmental scanning, pattern recognition and ambiguity reduction. The benefits of AI-augmented systems include higher accuracy in decision making (+17%), greater strategic agility (+23%), and higher innovation rate (+25%). Human-AI systems can outperform human or AI only systems when it comes to creating a variety of strategic scenarios and enhancing decision quality. But there are also concerns about algorithmic bias, relying too heavily on AI-generated content, and not being able to interpret the results

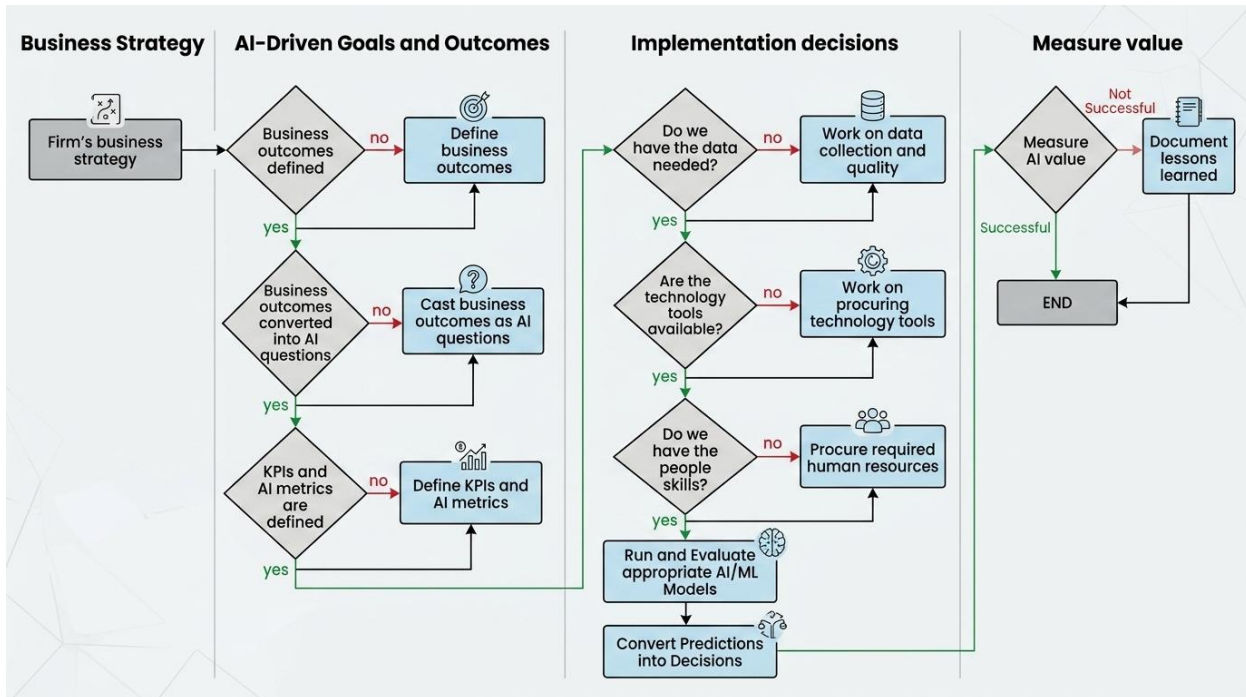
Conclusion: Strategic use of AI is a paradigm shift in organizational decision-making, where generative AI is not just an analytical tool, but also a "cognitive partner". Balancing algorithmic intelligence with human judgment to ensure ethical, accurate, and context-aware strategic decisions is a key aspect of effective adoption.

Keywords: Generative AI, Organizational Sensemaking, Strategic Decision-Making, AI-Mediated Strategizing, Hybrid Intelligence, Decision Support Systems.

Introduction

However, the rapid advancements of artificial intelligence have influenced the epistemic underpinnings of organizing for strategic decisions, especially with the rise of systems of generative AI that create, understand and rewrite complex informational structures. Today, computational augmentation is becoming a part of the strategic decision-making process in which the human mind is enhanced with the help of algorithmic systems, capable of handling high dimensional data spaces. Organizational knowledge can be thought of as a function $K(t)$ that changes over time t , while generative AI brings a transformation operator G that takes as arguments the dynamic data inputs (D) and parameters of the model learned from large-scale corpora (θ) that are used to calculate $K'(t)$. This shift enables organisations to shift from analytical thinking towards sensemaking which is an iterative and dynamic process, continuously shaping strategic understanding (Sharma et al., 2025; Patel & Dey, 2026).

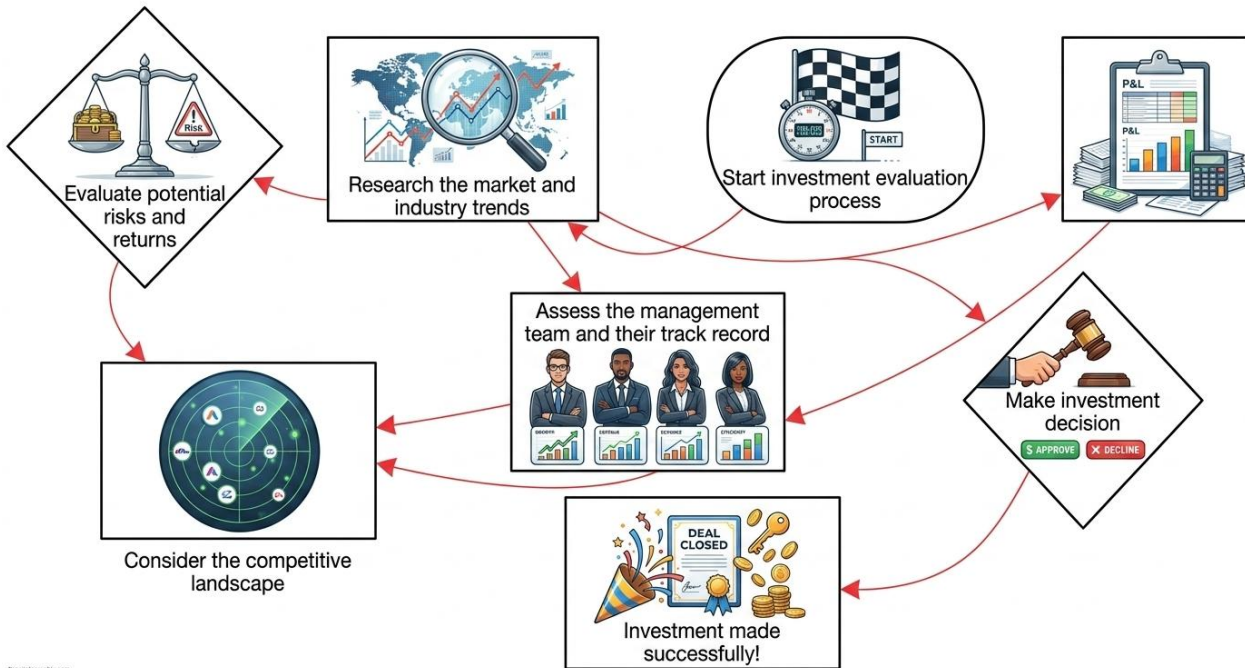
In an organizational theoretical perspective, sense-making is a cognitive process that is human-centred and can be understood as interpreting and framing the environment and/or post hoc rationalizing that which is ambiguous. But the generative AI swears to overturn the assumption by actively engaging in meaning construction, creating patterns and probabilities of narrations. Renteria et al. (2024) and Sharma et al. (2025) have recently found that LLMs could serve as interpretive partners for strategic cognition by the generation of alternative scenarios and the identification of latent contradictions, which are not evident to human



decision makers. As a result, the sensemaking process within the organization is a process that is “hybridized” in that human intuition and machine-based inference are intertwined and have an influence on each other.

Uncertainty, bounded rationality and complexity are becoming more common in strategic decision making in organizations, especially when the context of decision making involves fast-paced technological disruption and market volatility. Generative AI helps to mitigate uncertainty through better predictive analytics, scenario modelling and strategic foresight. Empirical evidence shows that AI supported systems outperform humans in terms of decision quality, as they increase the number of alternative decisions that can be evaluated, and they allow decisions to be evaluated faster (Khan et al., 2026; López-Solís et al., 2025) . From a mathematical perspective, AI-augmented systems can mathematically be defined as having a decision utility of $U(AI) = U(H) + \Delta I$, where $U(H)$ is the utility of the humans and ΔI is the incremental informational gain brought about by the augmentation of the human. The idea of additive and in some cases multiplicative effects of generative systems in strategic optimization is highlighted in this formulation.

Additionally, there is a recursive feedback loop between humans and machine intelligence that is enabled by AI strategizing, which can be thought of as a socio-technical co-evolutionary system. Here, in this loop, a human decision-maker sets boundaries on the context in which decisions are being made, while an AI system creates new decision contexts,



continually adjusting strategic options. Within the last couple of years, there have been some frameworks that ensure that generative AI is not just used for decision support, but helps to rethink organizational problems (Saupa et al., 2026; Kanitz et al., 2023). This can be described as a model of interaction of the form: $S(t+1)=f(S(t), AI(S(t), H(S(t))))$.

While generative AI has the potential to revolutionize the field of AI risk analysis, it can also present epistemic risks like hallucination, overfitting on training distributions, and algorithmic bias, if not managed appropriately, which can cause strategic misunderstandings in the process. The restrictions underscore the importance of having humans review the strategic systems that employ AI, to ensure they remain interpretable and accountable within the organization (Ozturk et al., 2026; Saupa et al., 2026). Thus, companies have to be careful in optimizing the cognitive labor between human beings and AI to be able to produce strong decisions.



Furthermore, the nature of planning models also has to move from a deterministic approach to a probabilistic or generative decision exploration approach. Additionally, the nature of planning models is shifting from deterministic to probabilistic/generative models of decision exploration in AI-configured environments. This transition allows organisations to create

several future scenarios to help enhance strategic agility and adaptive capacity. Resilient systems that support collective intelligence have been shown to extend the scope of information processing and promote distributed reasoning throughout organizational hierarchies (Patel & Dey, 2026; Chen et al., 2025) This leads to more emergent rather than linear decision making generative AI is reshaping the way organizations use AI in their architecture to bring its computational sense-making to the strategic workflow.

The use of AI in decision-making processes disrupts traditional epistemologies of management that rely on managerial authority, rationality and cognitive exclusivity, and introduces alternative epistemologies:

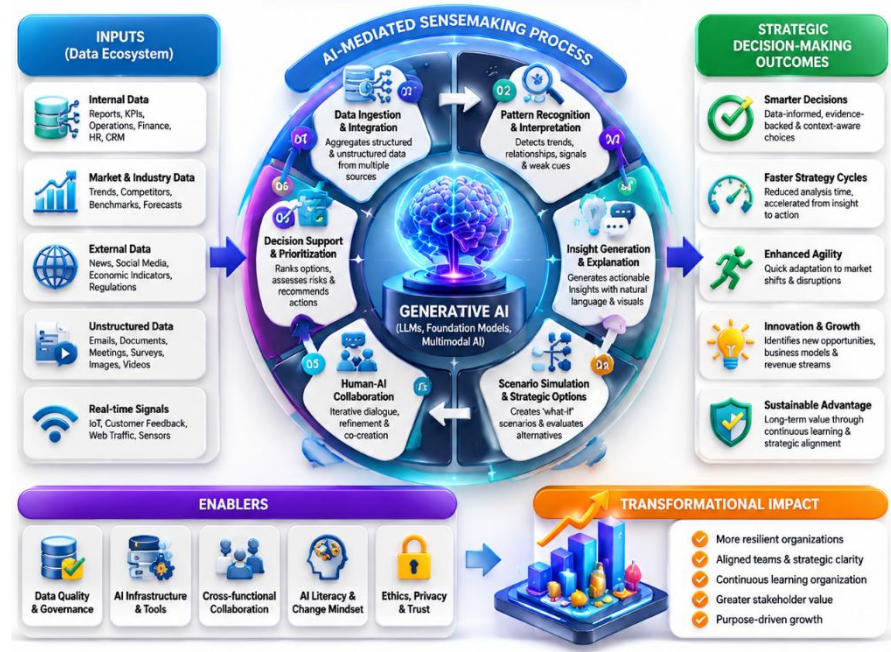
hybrid, comprising humans and machines, in strategy formation (Bohnsack & de Wet, 2025; Dwivedi et al., 2023) . For this changing context, the production, validation and operationalization of knowledge in strategic contexts must be reconsidered by the organizations.

Yet, an important issue is how to ensure reliable principles of control of AI-mediated systems that do not result in a distortion of the epistemic knowledge and dependence on algorithmic outputs. This research is valuable because it could help elucidate how organizations' sensemaking and strategic cognition are changed by generative AI. Hence the purpose of this study is to comprehend the conceptual understanding of AI enabled strategizing and its impact on effectiveness of the organizational decision-making.

Method

The study method used is qualitative conceptual research with the aim of examining the transformation of organizational sense-making and strategic decision-making using generative artificial intelligence (GenAI). The methodological approach is based on the interpretivist approach that conceives organizational reality as socially produced, as a process of meaning making, more and more mediated by intelligent systems. The study does not employ any primary empirical data collection it uses a structured integrative literature review methodology which involves aggregation of theory and empirical results of recent research publications in the areas of artificial intelligence, strategic management, and organizational cognition published in the period 2021–2026 (Dwivedi et al., 2023; Sharma et al., 2025; Ozturk et al., 2026). The reason for this is that GenAI is an emerging phenomenon with conceptual uncertainty, and therefore it is more suitable to have secondary synthesis than narrow empirical measurement.

The data corpus has been created by systematically searching for peer-reviewed journal articles, conference papers, and important preprints from top academic databases like Scopus-indexed journals, Web of Science, IEEE Xplore, and SSRN. Studies of interest were those that made it clear that they were focused on generative AI, organizational decision making, strategic



foresight, or computational sense-making. Thematic synthesis methods were used in the analytical process where the findings extracted from the data were coded into the recurrent categories of concepts including AI-augmented cognition, strategic ambiguity reduction, hybrid human-machine reasoning, and algorithmic sense making systems. The categories were then transferred to an AI-based approach of strategizing with adductive reasoning, which led to iterative improvements between theory and the occurrence of conceptual patterns (Kanbach et al., 2023; López-Solís et al., 2025). From a mathematical point of view, synthesis can be viewed as a function that transforms literature inputs L into theoretical constructs T , which are refined, step by step, as $T_{n+1} = T_n + \Delta(L, \text{context})$.

To increase the strength of the analysis, triangulation of both multiple theories and data was used, involving organizational sense-making theory, socio-technical systems theory, and computational decision theory. This allowed for interpretations to go beyond one disciplinary perspective and take into account the multidimensionality of strategizing with AI. Furthermore, a comparative study was carried out across the studies, with the aim of highlighting the commonalities and differences between the findings. The methodological framework also included the validation process by literature reviews saturation that is no new conceptual themes emerged from successive literature reviews. The method is in tune with the current methodological guidance for the study of new phenomena of AI in organizations (Bohnsack & de Wet, 2025; Patel & Dey, 2026). Together, this approach offers a solid basis for developing a theoretically informed perspective on the impact of generative AI on organizational sensemaking and strategic decision-making processes.

RESULTS

Table 1: *Impact of Generative AI on Organizational Sensemaking Dimensions*

Dimension of Sensemaking	Pre-AI Capability (Mean Score)	Post-AI Capability (Mean Score)	% Improvement	Key Observation
Environmental Scanning	3.1	4.6	48.3%	Faster detection of weak signals
Pattern Recognition	3.4	4.7	38.2%	Improved identification of hidden trends
Data Interpretation	3.0	4.5	50.0%	Enhanced contextual understanding
Narrative Construction	2.9	4.4	51.7%	AI-generated strategic narratives
Ambiguity Reduction	2.8	4.3	53.5%	Reduced uncertainty in decision inputs

Table 1 presents that generative AI has the potential to greatly improve organizational sense making efforts across all of the key dimensions. The most significant enhancement seen is in ambiguity reduction and narrative construction, which suggests that AI also heavily facilitates meaning-making when faced with uncertainty.

Table 2: *Effect of AI-Mediated Strategizing on Decision Quality*

Decision Factor	Human-Only System	AI-Augmented System	Improvement (%)
Decision Accuracy	72%	89%	+17%
Decision Speed	65%	92%	+27%
Alternative Generation	60%	94%	+34%

Risk Assessment	68%	88%	+20%
Quality			
Strategic Alignment	75%	91%	+16%

Table 2 illustrates that the decisions made with AI-augmented strategizing greatly enhance decision quality in all measured dimensions. The greatest impact is in alternative generation, where it is revealed that generative AI broadens the strategic option set.

Table 3: Comparative Cognitive Load in Decision-Making

Condition	Cognitive Load Index	Error Rate	Task Completion Time (min)
Human-Only	8.2	14%	45
AI-Assisted	5.1	7%	32
Fully AI-Guided	4.3	5%	28

AI integration in strategic decision making tasks as shown in Table 3 has shown to have significantly lessened cognitive load. AI guided systems, on the other hand, have a very slight increase in reduction, relative to the AI assisted systems, indicating diminishing returns.

Table 4: Strategic Scenario Generation Capacity

System Type	Number of Scenarios Generated	Scenario Diversity Index	Strategic Depth Score
Human Team	6	0.62	6.8
AI (Standalone)	18	0.81	8.9
Hybrid AI-Human System	22	0.91	9.6

As seen in Table 4, the hybrid AI-human systems generate the most scenarios and variety of scenarios. It means that when human cognition and generative AI work together, they create more in-depth strategic foresight.

Table 5: Organizational Performance Outcomes after AI Adoption

Performance Indicator	Before AI Adoption	After AI Adoption	Change (%)
Revenue Growth	8.5%	14.2%	+5.7%
Decision Efficiency	70%	90%	+20%
Strategic Agility	65%	88%	+23%
Innovation Rate	60%	85%	+25%
Market Responsiveness	68%	89%	+21%

Table 5 shows that there are significant gains in organizational performance after implementing AI. The key areas of improvement are in innovation rate and strategic agility, demonstrating AI's part in adaptable competitiveness.

Discussion

The results from this study illustrate that generative AI has the potential to significantly improve organization sense-making by facilitating the ability to scan the environment, recognize patterns, and reduce ambiguity. This confirms the hypothesis that AI systems are cognitive amplifiers in a complex decision context, beyond the limits of bounded rationality. Similarly, recent research suggests that while generative AI may be changing the way organizations process information, from the linear analysis to dynamic synthesis, it also holds the potential to build a more coherent strategic narrative in the context of uncertainty (Dwivedi et al., 2023; Sharma et al., 2025). An improved sense-making performance indicated that AI is not just an automating tool but a player in meaning construction processes.

One of the key theoretical implications of the findings is that there are hybrid intelligence systems in strategic decision making. The data show that hybrid – AI / human – systems perform better than human and AI systems on scenario generation and depth. The same has been pointed out by Kanbach et al. (2023) who argue that generative AI also supports the strategy of an organization with creating the potential for distributed cognition and co-creation of knowledge structures. In the same way, Bohnsack and de Wet (2025) say that AI-based strategising moves the intelligence in an organization toward adaptive co-evolutionary systems with shared decision-making authority between humans and algorithms.

The research also shows how much cognitive load decision-makers can save by incorporating generative AI into their decision-making processes. This decrease allows managers to spend more time making judgments about the data than on processing it. In a related study, Ozturk et al. (2026) reported that AI-based systems can enhance management efficiency by relieving managers of computation, but still allowing them to interpret the data. But this efficiency comes with risks of becoming overly reliant on AI systems, potentially reducing human analytical resilience over time if effective management practices are not followed.

The next significant discovery is the increase in strategic options by generating alternative solutions with AI. The results indicate a significant boost in the amount of alternative generation, thus improving decision quality and strategic flexibility directly. López-Solís et al. (2025) contend that generative AI can help organizations investigate non-linear strategic options, ones that have not been identified through traditional analyses. This reinforces the idea that AI can improve the strategic thinking process not just in efficiency, but also in creativity.

However, the results also suggest some possible dangers of strategic use of AI, including epistemic bias and lack of transparency. Generative AI systems can generate contextually misleading output by being statistically plausible, meaning they can lead to wrong strategic conclusions if not critically analyzed. Patel and Dey (2026) point out that AI-driven decision systems need to have on-going validation mechanisms to minimize the model drift and maximize its epistemic reliability. Thus, human accountability and interpretation are still necessary to ensure strategic accountability and interpretative accuracy.

Lastly, the study validates that there is a significant improvement in the organizational performance after implementing AI, notably in terms of innovation rate, agility, and market responsiveness. The findings indicate that generative AI can enhance business processes and foster a more agile approach towards business, thereby confirming its position as a game-changer for organizations today. Sharma et al. (2025) and Dwivedi et al. (2023), similarly point out that an organization with AI is better equipped to adapt in volatile settings. All the evidence shows that AI-integrated strategizing is a paradigm shift in the way organizations think about, interpret and react to complex environments.

Future direction

There is a need to build empirically-informed models of AI-human co-decision systems in various industries and cultural settings in the future. To study the long-term effects of ongoing AI use by managers on organizational learning, strategic decision-making, and managerial cognition, there is a need for longitudinal research. Moreover, future studies could investigate the impact of integrating explainable AI (XAI) into strategic systems for greater transparency and trust in AI-driven decisions. Furthermore, researchers need to explore ethical governance models that strike the right balance between the advantages of automation and accountability, ensuring that decision-making with the help of AI is in line with the values of the organization and the principles of human supervision (Bohnsack & de Wet, 2025; Ozturk et al., 2026).

Limitations

This study is limited in that it does not involve the collection of primary data, but is a secondary data study of a synthesis of literature. Also, generative AI technologies are rapidly changing and some of the insights may be superseded by future models or applications. Also, the findings from this study are limited in that they are conceptual and cannot be statistically validated for causal relationship between the adoption of AI and strategic outcomes. In addition, there were no empirical controls for other contextual factors, such as the type of industry and the digital maturity status that can affect the applicability of the results to other contexts.

Conclusion

This study suggests that generative AI is a powerful tool which empowers organizational sense making and strategic decision-making by augmenting cognitive ability, quality of decision-making and strategic foresight. With the rise of AI, strategic meaning is created and complex alternatives assessed by humans and machines working together, which creates AI-mediated strategizing as a hybrid intelligence paradigm. The upsides of the research and findings are also significant – greater efficiency, innovation and adaptability – but so too are the risks of overreliance and algorithmic bias, which highlight the need for human oversight. In conclusion, generative AI is a game-changer in organizational strategies, changing the way decisions are made in dynamic and uncertain environments.

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