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Human-AI collaboration for strategic decision-making in global organizations

Heru Kurniawan[1*], **Deni Hidayat**[2]
[1]Universitas Widyatama, Bandung, Jawa Barat, Indonesia
[2]Universitas Muhammadiyah Cirebon, Jawa Barat, Indonesia
*Correspondence author: heru.krwn@yahoo.com
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ABSTRACT

Purpose: to explore the role of artificial intelligence (AI) in supporting strategic decision-making within global organizations in order to enhance the quality and sustainability of decisions.
Method: this study adopts a qualitative approach through a systematic literature review. Data are collected from relevant journal articles, books, corporate reports, and academic publications. The analysis is conducted thematically to identify the roles of AI, success factors, challenges, and research gaps, and to synthesize findings that can inform the development of a conceptual framework for AI implementation at the global level.
Findings: AI enhances decision quality, operational efficiency, and organizational agility; however, final decisions still require human judgment. The successful integration of AI is influenced by data quality, organizational readiness, managerial support, and human competencies. Key challenges include algorithmic bias, ethical concerns, and differences in cultural and regulatory contexts.
Implications: integrating AI enables global organizations to enhance the quality of strategic decision-making and improve their responsiveness to market dynamics. A hybrid human–AI approach helps minimize bias risk and strengthen sustainable competitive advantage.
Originality: lies in a holistic approach that integrates the role of AI, managerial context, and cross-cultural dynamics in strategic decision-making within global organizations, while also highlighting hybrid human–AI mechanisms and risk management aspects that have been rarely addressed in previous literature.

Introduction

The development of digital technology has transformed the way global organizations operate and make strategic decisions (Omol, 2024). One of the most significant innovations in this era is artificial intelligence (AI), capable of processing

large-scale data, identifying patterns, and making accurate predictions (Javaid et al., 2022). AI not only affects technical operations but has also become an essential tool for strategic decision-making, spanning business planning and supply chain management to the development of new products. Global organizations, operating across diverse markets and facing high environmental complexity, increasingly require AI capabilities to support decisions that are fast, precise, and data-driven (Zong & Guan, 2024).

Recent developments indicate that multinational companies that adopt AI in their strategic decision-making processes tend to be more adaptive to market changes and more competitive than organizations that still rely on intuition or traditional methods. For example, the use of AI in risk analysis, demand forecasting, and marketing strategy optimization has become common practice among leading global companies (Nweke & Adelusi, 2025). However, this AI adoption also poses challenges related to integrating technology with organizational culture, the ethics of decision making, and managerial capabilities for utilizing AI-generated insights. Although AI offers significant potential, research indicates that many global organizations still struggle to maximize its contribution to strategic decision-making. Some key issues include managerial limitations in understanding AI, a lack of high-quality data, organizational resistance to technology-driven change, and uncertainty regarding AI's impact on long-term decision outcomes (Fantoni & Sasmita, 2025; Uddin, 2025). This raises a critical question: How can AI effectively support strategic decision-making in global organizations without introducing undesirable risks and biases?

Recent research indicates that AI has been integrated into strategic decision-making through approaches such as predictive and prescriptive analytics, as well as machine learning (Ara et al., 2024; Dhanekula, 2025; Nweke & Berko, 2025; Ramya et al., 2024; Vudugula et al., 2023). Previous studies emphasize that AI can enhance prediction accuracy, operational efficiency, and decision-making speed (Al-Surmi et al., 2022; Davianto, 2022; Vudugula et al., 2023). However, most of the literature still focuses on the technical aspects of AI or specific corporate case studies, resulting in limited research that comprehensively analyzes the impact of AI on strategic decision-making processes within the context of global organizations. From the literature review, a research gap is evident regarding a holistic understanding of AI integration with cross-national and cross-cultural managerial strategies, the impact of AI on the long-term quality of strategic decisions, and the mechanisms for managing risks, ethics, and bias in AI-based decision-making.

This study offers a novel contribution by examining the relationship between AI capabilities and the quality of strategic decision-making in global organizations, while also highlighting managerial mechanisms to maximize AI effectiveness while minimizing risks. This approach integrates technological, strategic management and global contextual perspectives comprehensively. The objectives of this study are to identify the role of AI in supporting strategic decision-making in global organizations, analyze the factors that influence AI effectiveness in the decision-making process, and develop a managerial framework to maximize AI's potential while reducing risks and biases. This study is important because it provides practical guidance for global companies seeking to integrate AI effectively into strategic decision-making. Furthermore, it can assist managers and policymakers in understanding the implications of AI for decision quality, organizational efficiency, and business sustainability in the digital era. This research is expected to enrich the literature on AI in strategic decision-making from the perspective of global organizations, provide recommendations for companies adopting AI to

enhance the quality of their strategic decisions, and develop an integrative framework for assessing AI effectiveness in cross-national strategic decision-making.

Literature review

Resource-based view (RBV)

The resource-based view (RBV) is an approach in strategic management that emphasizes that a firm's competitive advantage is primarily determined by its internal resources (Wernerfelt, 1984). According to RBV, a company can achieve and sustain a competitive advantage if it possesses valuable, rare, difficult-to-imitate, and well-managed resources. These resources are not only tangible assets such as machinery, technology, and financial capital, but also intangible assets such as brand reputation, organizational culture, knowledge, and employee skills. RBV explains that performance differences among firms within the same industry arise from variations in resource ownership and the ability to leverage those resources. Using the VRIO framework (valuable, rare, inimitable, and organized), a firm can evaluate whether its resources can provide a sustainable competitive advantage. Thus, RBV helps companies formulate long-term strategies that focus on the optimal development and utilization of internal strengths (S. Liu, 2025).

Artificial intelligence (AI)

Artificial intelligence (AI) is a branch of computer science that focuses on developing systems or machines capable of imitating human cognitive abilities, such as learning, analyzing, predicting, and making decisions (Ghosh & Thirugnanam, 2021). AI encompasses a range of technologies, including machine learning, deep learning, natural language processing, and predictive analytics. In organizational contexts, AI is used to enhance operational efficiency, process large volumes of data, and support evidence-based decision-making. Several studies indicate that AI adoption can improve prediction accuracy and decision-making speed, which are crucial for global organizations operating in complex markets and dynamic environments (Rajagopal et al., 2022; Song et al., 2025; Vudugula et al., 2023).

Strategic decision-making

Strategic decision-making is the process of selecting the best alternative with long-term implications for an organization's direction and success (S. Kumar, 2024). This process is typically complex, involves uncertainty, and requires consideration of various internal and external factors. In global organizations, strategic decision-making often entails cross-national coordination, cultural differences, diverse regulations, and global market dynamics. There are three stages of decision-making: intelligence (information gathering), design (developing alternatives), and choice (selecting the best alternative) (Simon, 1977). AI can support the intelligence and design stages by enabling faster, more accurate data analysis. AI can expand managers' cognitive capacity in making complex decisions, addressing the limitations of human ability to process information (Berente et al., 2021; Simon, 1955).

Global organizations and strategic complexity

Global organizations face unique challenges, including differences in regulations, culture, and market conditions across countries. Strategic decisions at the global level require integrating information from multiple markets, coordinating across cultures and

business units, and responding rapidly to global dynamics (Jain, 2024). AI can help reduce this complexity by providing real-time data-driven insights, enhancing collaboration among global units, and supporting more consistent decision-making across different locations (Zong & Guan, 2024). Strategy effectiveness depends on the organizational context and its environment (Fiedler, 1964); AI enables global organizations to adapt decisions to the specific conditions of each market. The importance of knowledge management in decision-making is also highlighted, as AI plays a role in systematically managing knowledge in a data-driven manner (Pisoni et al., 2023).

Method

This study employs a qualitative literature review to analyze the role of AI in strategic decision-making within global organizations. The literature review aims to identify, evaluate, and synthesize findings from previous research, corporate reports, and relevant academic publications. The primary data sources include journal articles, books, corporate reports, white papers, and official documents from global organizations on AI implementation, decision-making strategies, and related managerial practices. The literature collection process was conducted through a systematic search using keywords such as "artificial intelligence," "strategic decision-making," "global organizations," "AI adoption," and "decision support systems" on Google Scholar. Data analysis was performed using a thematic approach, grouping the literature findings into main themes: the role of AI in decision-making, factors influencing AI effectiveness, implementation challenges, and the impact on the quality of strategic decisions. Subsequently, these findings were synthesized to identify research gaps, develop a conceptual framework, and provide theoretical and practical recommendations regarding AI integration in strategic decision-making within global organizations. Research validity was maintained through triangulation of literature from various disciplines and credible publications, and by emphasizing literature from the last 10 years to ensure the relevance of the findings to the current context of AI development.

Results and discussion

Various findings from the literature review indicate the roles and implications of artificial intelligence (AI) in strategic decision-making within global organizations. Table 1 summarizes the main themes, relevant literature findings, and the supporting reference sources that underpin the analysis.

Table 1 results of the literature review findings

Main theme	Literature findings	Sources
The role of AI in strategic decision-making	AI enhances decision quality through big data analysis, trend prediction, and scenario-based recommendations, thereby helping global organizations respond to market changes more quickly.	(Vudugula et al., 2023) (Fayaz et al., 2024) (Zong & Guan, 2024) (Nwoke, 2025)
Operational efficiency and organizational agility	AI in management information systems (MIS) enhances access to real-time data and the ability to formulate responsive strategies in the face of global dynamics.	(Dhanekula & Rony, 2023) (Biswas et al., 2024) (Hamdat et al., 2024) (Susilo & Susanto, 2024)
AI as a decision support tool	AI is effectively used as a decision support tool; however, final decisions still require human judgment and managerial context.	(Bankins, 2021) (Gupta et al., 2022) (Brink et al., 2024) (Marimira & Gumel, 2025)

Main theme	Literature findings	Sources
Determinant Factors for Successful AI Integration	AI effectiveness is influenced by data quality, organizational readiness, managerial support, and human competencies in utilizing AI outputs.	(Uren & Edwards, 2023) (Alarefi, 2024) (Alghazzawi, 2025) (Neiroukh et al., 2025)
Ethical challenges and the risk of algorithmic bias	The risk of algorithmic bias arises from non-representative data; therefore, ethical control mechanisms and AI governance are necessary.	(Fayaz et al., 2024) (Panarese et al., 2025) (Tiwari & Farag, 2025) (Waśkiewicz et al., 2025)
Research gaps	There are still few studies on cross-cultural AI integration, the long-term impact of AI on the quality of strategic decisions, and AI risk management in global organizations.	(Z. Liu, 2024) (Joshi, 2025) (D. Kumar et al., 2025) (Huemmer et al., 2025)

Source: secondary data, processed

The role of AI in improving the quality of strategic decision-making, as evidenced in the literature, indicates that AI significantly enhances strategic decision-making quality through its capabilities in big data analysis, market trend prediction, and scenario-based recommendations. AI strengthens the decision-making process by providing faster, more accurate analysis than traditional methods, enabling organizations to respond more adaptively to environmental changes. Studies also show that AI helps transform complex information into more meaningful strategic insights for decision-makers.

In the operational efficiency and organizational agility section, the literature review indicates that organizations implementing AI in management information systems (MIS) report improvements in decision-making efficiency, particularly in real-time data access and in anticipating market needs. The application of AI in MIS enables managers to formulate more responsive strategies to global dynamics and achieve more efficient operations.

In the AI as a decision-support tool section, not a replacement for humans, while AI makes significant contributions to data processing and strategic recommendations, the literature confirms that it has not yet fully replaced humans in strategic decision-making. Many studies suggest that AI is most effective when used as a support tool, while the final decision remains with managers or organizational leaders. The application of AI needs to be combined with managerial experience and context to make strategic decisions more analytically and contextually robust.

In the section on determinant factors for successful AI integration, based on the literature, several key factors influence AI effectiveness. First, data quality is essential, as accurate and clean data are crucial for AI models to provide reliable predictions. Second, organizational readiness, including top management support and cultural preparedness, serves as a major driver of successful implementation. Third, human capability in utilizing AI, particularly managerial competence in understanding AI outputs, is a significant factor in strategic decision-making. The literature also notes that organizations need to continuously develop dynamic capabilities to adapt AI use to evolving strategic needs.

In the ethical challenges and risk of algorithmic bias section, the literature review identifies ethical issues and algorithmic bias as significant challenges in the use of AI for strategic decision-making. Several studies highlight the potential for bias when training data are not representative or when AI systems lack transparency in their decision-

making processes. These issues have implications for organizational trust in AI outputs and underscore the importance of ethical control mechanisms and AI governance.

Research gaps in the context of global organizations, based on the analyzed literature, indicate that several gaps remain, particularly regarding: studies examining AI integration in cross-cultural and regional environments of global organizations; evaluation of the long-term impact of AI on the performance of strategic decision-making; and mechanisms for managing AI risks and biases in the context of cross-border decision-making. These findings suggest the need for further research on AI implementation practices in global organizations, accounting for diverse cultural contexts and policy environments.

The role of AI in strategic decision-making

The literature indicates that artificial intelligence (AI) significantly enhances the quality of strategic decision-making through its capabilities in big data analysis, trend prediction, and scenario-based recommendations. However, upon deeper analysis, AI is not merely a passive analytical tool but rather a strategic capability that can transform the dynamics of organizational decision-making. With its ability to process large and complex volumes of data, AI enables managers to obtain more accurate insights, identify hidden patterns and trends, and simulate various strategic scenarios before making decisions. This provides global organizations with the capacity to respond to market changes and global volatility more quickly and effectively, thereby strengthening their competitive position. From the perspective of the resource-based view (RBV), AI is a strategic asset that is unique, difficult to imitate, and has the potential to create long-term competitive advantage. Organizations that successfully integrate AI not only enhance operational efficiency but also expand their cognitive capabilities (Olan et al., 2022), namely the ability to understand the business environment more deeply and make evidence-based decisions. In the global context, this capability becomes particularly crucial, as organizations must navigate heterogeneous markets, cross-border regulations, and rapidly changing competitive dynamics.

AI implementation also shortens the strategic decision-making cycle, enabling organizations to respond to opportunities or threats more quickly than competitors that still rely on manual processes. However, this acceleration presents a critical challenge: AI-generated decisions must be evaluated contextually by managers to ensure alignment with the strategic vision and with external factors that algorithms cannot fully capture, such as changes in government policy or sociocultural trends. Therefore, AI should be regarded as a decision-support tool that enhances human decision-making capacity, rather than a replacement for managerial roles. Furthermore, AI integration requires organizations to develop new capabilities, such as data literacy, the ability to assess the validity of algorithmic models, and risk management strategies related to AI-based decisions (Aldoseri et al., 2023; Vudugula et al., 2023). Organizations that can balance speed, accuracy, and human judgment will be able to utilize AI optimally, reduce the risk of bias or error, and strengthen organizational flexibility in facing the uncertainties of the global market. In other words, AI is not merely a technology but a strategic tool that enables organizations to adapt, compete, and survive in a complex and dynamic business environment (Fayaz et al., 2024; Nwoke, 2025).

Operational efficiency and organizational agility

The integration of artificial intelligence (AI) into management information systems (MIS) has significantly enhanced operational efficiency and organizational

agility in global organizations. With AI's ability to provide real-time data and predictive analytics, managers can identify operational issues more quickly, forecast market needs, and proactively adjust business strategies. This enables global organizations not only to respond to market changes more rapidly but also to reduce the time and costs associated with traditional decision-making processes, such as manual analysis or repetitive coordination meetings (Hamdat et al., 2024). From a managerial perspective, AI's ability to integrate and process data from various business units, such as production, distribution, marketing, and supply chain, enhances cross-departmental synchronization (Zhou et al., 2025). Consequently, organizations can simultaneously adjust production, logistics, and marketing strategies, reducing the risk of stock shortages or resource waste (Biswas et al., 2024). This agility becomes an important competitive advantage in the global context, where market changes can occur suddenly due to economic factors, geopolitical events, or consumer trends.

Furthermore, AI integration has led to a paradigm shift in operational practices. Decisions that were previously reactive can now be made proactively and based on predictions, enabling organizations to anticipate issues before they occur (Susilo & Susanto, 2024). For example, AI can forecast product demand in specific markets, allowing production to be adjusted to avoid overstocking or supply shortages. Additionally, AI supports "what-if" scenario simulations, enabling organizations to evaluate various strategies before making final decisions, thereby minimizing operational risks. However, the effectiveness of AI in enhancing efficiency and agility is highly dependent on data quality, system integration, and organizational readiness. The technological infrastructure must support real-time data processing, while the data used must be accurate, consistent, and relevant. Furthermore, organizations need to cultivate a technology-adaptive culture, including training employees to utilize AI outputs optimally (Dhanekula & Rony, 2023). Without such preparation, the potential of AI to improve efficiency and agility may not be fully realized and could even lead to incorrect decisions due to inadequate data. Strategically, AI's ability to enhance operational efficiency and agility provides global organizations with highly important, responsive capabilities in the face of market uncertainty. Organizations that can effectively leverage AI are not only able to optimize internal processes but also accelerate strategic decision-making, quickly adjust products and services, and maintain a competitive advantage in dynamic global markets (Neiroukh et al., 2025; Vudugula et al., 2023).

AI as a decision support tool

Although artificial intelligence (AI) can generate recommendations based on big data, trend predictions, and scenario simulations, the literature emphasizes that final decisions still require human judgment. This indicates that AI should not be regarded as a replacement for managers or decision-makers, but rather as a strategic decision support system that enhances human decision-making capabilities (Bankins, 2021). In practice, AI can process complex information, identify hidden patterns, and highlight potential risks, while managers utilize contextual knowledge, experience, and ethical considerations to determine the final strategy (Marimira & Gumel, 2025). This approach aligns with the Sociotechnical Systems theory, which emphasizes that organizational effectiveness emerges from a balance between technical systems (AI) and social systems (humans, organizational culture, and managerial structures). In the global context, this balance becomes more complex because strategic decisions are influenced not only by data and algorithms but also by cross-border regulations, cultural norms, and diverse market dynamics. For example, AI recommendations based on market trends in one

region may not be fully relevant or accepted in another country due to differences in consumer preferences, government policies, or local political risks.

Furthermore, human–AI integration demands new capabilities from managers. Managers must understand how algorithms work, assess the validity of AI outputs, identify potential data biases, and integrate AI insights into organizational strategy (Brink et al., 2024). Without these capabilities, organizations risk making decisions that appear data-driven but are actually inadequate due to a lack of context or human interpretation. In other words, AI enhances the accuracy, speed, and effectiveness of decisions, but responsible and sustainable decision-making still depends on the quality of human judgment (Gupta et al., 2022). In global practice, hybrid human–AI models enable organizations to leverage AI's computational power without sacrificing human flexibility, creativity, and ethical consideration. This approach also helps organizations navigate global market uncertainty, minimize algorithmic bias risk, and ensure that strategic decisions are more comprehensive and adaptive to changing business environments. Thus, AI not only strengthens decision-making but also drives the transformation of strategic management toward a more effective and sustainable human–technology collaborative model (Chaturvedi et al., 2025; Vudugula et al., 2023).

Determinant factors for successful AI integration

The success of artificial intelligence (AI) integration in strategic decision-making depends not only on the sophistication of the technology itself but also on data quality, organizational readiness, managerial support, and human capabilities for utilizing AI outputs. Literature analysis indicates that although AI can generate scenario-based recommendations and trend predictions, the technology will not be effective if the data used is inaccurate, incomplete, or irrelevant. High-quality data are essential to ensure that AI outputs are reliable and accurately reflect market or operational conditions (Alarefi, 2024). Moreover, organizational readiness is a crucial factor. Organizations must have structures and processes that enable AI integration into decision-making workflows, including the ability to adjust operational procedures, foster a more adaptive work culture, and build human–AI collaboration systems (Alghazzawi, 2025). Without such readiness, AI outputs may be ignored or even trigger internal resistance, preventing the strategic benefits of AI from being realized.

Managerial support is also a key determinant. Organizational leaders need to demonstrate commitment to AI use by allocating adequate resources, forming dedicated teams for AI implementation, and overseeing algorithmic use. Managerial support not only ensures the smooth technical implementation but also builds employee trust in AI, enabling AI outputs to be accepted and used effectively in strategic decision-making (Neiroukh et al., 2025). In addition to internal factors, human capabilities play an important role. Managers and analysts must understand how AI works, assess the validity of recommendations, identify potential algorithmic bias, and integrate AI insights into decisions that consider business context, regulations, and global market dynamics. Without these competencies, organizations risk making decisions that appear data-driven but are actually inaccurate or even counterproductive.

This approach aligns with the TOE Framework (technology-organization-environment), which posits that the implementation of new technologies such as AI requires synergy among technology (AI sophistication, system integration, data quality), organization (structure, culture, human competencies), and the external environment (regulation, competition, market conditions) (Chittipaka et al., 2023). Organizations that can manage these three factors simultaneously will derive the greatest benefits from AI,

including accelerated decision-making, improved strategic accuracy, and greater operational flexibility. Conversely, failure in any one aspect, such as poor data quality or an organizational culture resistant to technology, can reduce AI effectiveness or even create new strategic risks (Fayaz et al., 2024). Thus, AI integration is not merely a matter of technology implementation but also a holistic organizational transformation encompassing cultural change, strengthening human capabilities, and managing external risks, so that AI can truly become a strategic asset that contributes to adaptive, high-quality global decision-making.

Ethical challenges and algorithmic bias risks

The use of artificial intelligence (AI) in strategic decision-making poses significant ethical challenges and risks of algorithmic bias. Algorithmic bias may arise from several factors, including non-representative data, opaque modeling processes, assumptions that do not align with the organizational context, or subjective algorithm design choices (Panarese et al., 2025). In global organizations, these risks become more complex because AI-driven decisions can affect stakeholders across countries, including employees, customers, business partners, and regulators. If such biases are not controlled, organizations risk making unfair, discriminatory, or even legally non-compliant decisions, thereby negatively impacting reputation, public trust, and legal compliance. Moreover, algorithmic bias is not only an ethical issue but can also reduce the accuracy and effectiveness of strategic decisions. For instance, market forecasts or strategic recommendations generated by AI may be misguided if the historical data used does not reflect current conditions or if the algorithmic model fails to account for sociocultural contexts in certain countries. In such situations, organizations may make decisions that appear data-driven but actually pose high financial or operational risks (Tiwari & Farag, 2025).

To address these challenges, the literature emphasizes the importance of holistic AI governance, which includes several key components. First, regular algorithmic audits to detect bias and ensure models function in line with strategic objectives. Second, model transparency, which enables organizations to explain how AI outputs are generated so that managers can understand the limitations and assumptions underlying the recommendations. Third, the development of ethical policies and internal regulations, including guidelines for AI usage, that align with organizational values, national laws, and international standards. Implementing such governance enables organizations to leverage AI effectively while minimizing ethical, legal, and reputational risks (Panarese et al., 2025). Furthermore, these challenges require organizations to develop responsible human–AI capabilities. Managers must be able to evaluate AI results critically, recognize potential biases, and adjust decisions in accordance with strategic context and local regulations. At a global scale, this also underscores the need for standardized cross-regional procedures and audits, as data and AI-related regulations vary across countries (Waśkiewicz et al., 2025). This approach is essential not only for ensuring fairness and decision accuracy but also for sustaining AI usage as a strategic asset in the long term. Therefore, ethical challenges and algorithmic bias risks are not merely technical issues but strategic aspects that must be proactively managed. Global organizations that successfully implement comprehensive AI governance will be able to leverage AI for rapid, accurate, and fair decision-making while strengthening stakeholder trust and corporate reputation at the international level (Fayaz et al., 2024; Tiwari & Farag, 2025).

Research gaps and future directions

The literature review indicates that although the application of artificial intelligence (AI) in strategic decision-making has been extensively studied, significant research gaps remain. One of the primary gaps is the lack of studies examining AI integration in cross-cultural and global organizational contexts. Most current literature focuses on AI implementation within single or local organizational environments, without considering cultural differences, regulations, and managerial practices across countries. However, the global context adds complexity, including differences in consumer preferences, varying data protection regulations, and divergent ethical perceptions, all of which can affect the effectiveness of AI-based decisions. Furthermore, there is a shortage of research on the long-term impact of AI on the quality of strategic decisions. Many studies emphasize short-term benefits such as increased efficiency or predictability. However, there is a lack of in-depth analysis of how AI affects organizational resilience, strategic adaptability, and long-term complex decision-making. This issue is critical because global organizations face rapidly changing market dynamics and escalating strategic risks, necessitating the evaluation of AI-based decisions from sustainability and robustness perspectives.

Another gap relates to the management of AI risks and ethical challenges. Although the literature highlights issues such as algorithmic bias, transparency, and governance, empirical research on how global organizations effectively implement ethical policies, AI audit mechanisms, and risk controls remains limited. A comprehensive framework that integrates human, technological, organizational, and global environmental aspects is still lacking, and such a framework could guide organizations in maximizing AI benefits while minimizing risks. Therefore, future research directions should focus on developing adaptive and holistic AI implementation frameworks. Such frameworks should incorporate best practices in human–AI management, risk mitigation strategies, and ethical governance, while accounting for cross-cultural and global regulatory contexts. In addition, future studies could explore models for evaluating the long-term impact of AI on strategic decision quality and organizational sustainability. Through this approach, research can produce practical, evidence-based guidance for global organizations to maximize AI use, enhance the accuracy and speed of decision-making, and ensure that the resulting decisions remain high-quality, fair, and sustainable.

Conclusions

Based on the literature review, this study demonstrates that AI plays a significant role in enhancing the quality of strategic decision-making in global organizations. AI can process large, complex datasets, predict market trends, and simulate various strategic scenarios, enabling organizations to respond more quickly and adaptively to environmental changes. Additionally, AI enhances operational efficiency and agility through AI-based management information systems, while also serving as a decision-support tool; however, final decisions still require human judgment, organizational context, and external factors. The success of AI integration is influenced by several key factors, including data quality, organizational readiness, managerial support, and human competence in utilizing AI outputs. On the other hand, AI use poses significant ethical and algorithmic bias challenges, requiring appropriate governance mechanisms and risk controls to ensure decisions remain fair, accurate, and sustainable.

The findings of this review have practical, theoretical, and strategic implications. In practice, global organizations need to develop human–AI capabilities, enhance

managers' data literacy, and establish transparent AI governance systems to optimize the use of AI in strategic decision-making. Theoretically, this study emphasizes the importance of integrating technological, organizational, and global environmental perspectives to understand AI's impact on strategic decisions, thereby expanding the literature, which has previously focused more on technical aspects or local case studies. Strategically, AI should be viewed as a strategic asset that can enhance organizational flexibility, responsiveness, and competitive advantage, rather than merely an analytical tool or a human replacement.

This study has several limitations, including a qualitative literature-based approach that lacks direct empirical evidence from global organizations, limited data on cross-cultural and regulatory contexts, and a lack of analysis of the long-term impact of AI on strategic decision quality and organizational sustainability. Given these limitations, future research should conduct cross-country empirical studies to test AI effectiveness in strategic decision-making, taking into account variations in cultural, regulatory, and market dynamics. In addition, future research could evaluate the long-term impact of AI use, develop an integrative AI governance framework to manage algorithmic bias and ethical issues, and investigate strategies to develop managerial capabilities to maximize AI benefits without compromising the contextual relevance, fairness, and sustainability of strategic decisions.

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