International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 24s, 2025
https://www.theaspd.com/ijes.php

The Integration Of Artificial Intelligence In Strategic Decision-Making Examining The Balance Between Human Intuition And Machine Learning Algorithms In Modern Management Frameworks

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Abstract
AI has already evolved as a game-changer to be applied in strategic decision-making in modern management strategy. Reference Idea. This study examines the intricate dynamics of strategic decision-making between human intuition and machine learning algorithms. While AI excels at processing enormous amounts of data, describing data, and identifying trends, predictive analytics reduces the need for human intuition necessary for handling complex, subjective, and uncertain situations. Using a thorough exploration of existing literature, this study analyzes various ethical frameworks employed by researchers, explores the decreasing cost of AI in decision-making and enhanced skill applicability, scalability of AI applications to improve performance, but underscores the critical open challenge of human insight to address unstructured data, drive innovation, economic prosperity, and strengthen ethical frameworks. A combination of leveraging the strengths of each center, AI, and human intuition is the way to a better strategic outcome, the results show. The analysis shows that the companies that achieve the best results typically use a hybrid approach that harnesses AI's computational strength while retaining the situational awareness and creative problem-solving skills of human decision-makers. In this systematic study, critical challenges (like algorithmic bias, over-reliance on AI, and the need for human supervision) have been highlighted , and future research pathways have been proposed to dispute these issues. This research also adds to the understanding of how artificial intelligence (AI) can be smoothly integrated into strategic decision-making processes without compromising human judgment by balancing technological advances with human cognitive abilities.

Keywords: *Artificial intelligence, strategic choices, human intuition and judgment, machine learning, decision-making frameworks in management, analytics for decision-making, ethics, rational decisions, social implications of technology.*

1. INTRODUCTION

Integration of AI into corporate processes is one of the most important technical developments in modern management. Now, as the digital dawn has broken, organizations must reconfigure the very architecture of their decision-making to integrate AI into how decisions are made, all the while preserving the human judgment that has traditionally informed strategic decision-making. The advancement of AI technology, particularly machine learning, and predictive analytics, enabled us to collect and analyze immense amounts of data at a speed and scale never before possible. I can significantly influence strategic decision-making as they allow firms to identify trends, predict trends, and obtain insights missed by the human mind(Mgala 2024).

Artificial Intelligence (AI) has grew rapidly and influenced various sectors, including business management. Now, with large amounts of data to process and the ability to generate insights, Artificial Intelligence becomes a key player in strategic decisions. But when AI is integrated into management systems, it is a double whammy, as it drives out human intuition. AI is phenomenal when the capability to make data-driven decisions, but human intuition is essential in complex, hard, and ambiguous situations(Gudigantala, Madhavaram, and Bicen 2023),(Limna et al. 2022).

The combination of Artificial Intelligence (AI) with strategic decision-making strategies has redefined management paradigms across the globe. In a world of heightened complexity and a data-driven

corporate environment, the ability to make informed, timely, and effective decisions has proven to be a game-changer. With data up until October 2023, Articles offer pivotal insights into how (artificial intelligence) through its advanced data processing, pattern recognition, and predictive analytics, has revolutionized decision-making with unprecedented opportunities for enhancing accuracy, efficiency, and scalability(Narne et al. 2023). The rise of AI within decision-making has sparked a debate surrounding the role of human intuition , a cognitive construct based on experience, creativity, and emotional intelligence, a conducive (or adversarial) role in the comparison to profit instrumented insights(Kahneman and Klein 2009).

1.1. The Rise of AI in Strategic Decision-Making

AI technologies, and in particular machine learning algorithms, have become essential tools for companies seeking to gain a competitive advantage. Such technologies enable the inspection of large-scale structured and unstructured data, thereby identifying trends and patterns that would be difficult for humans to uncover manually(Shrestha, Ben-Menahem, and Von Krogh 2019; Zhang 2024). AI-powered systems are used to predict market trends, optimize supply chains, and tailor consumer experiences(Chowdhury et al. 2023), all of which contribute to better-informed and more strategic decision-making. In fast-moving and dynamic industries, AI is a blessing, and it can process and analyze data in real time and provide actionable insights.

Despite these developments, the heavy reliance on Artificial intelligence brings about certain challenges. Data quality problems, algorithmic bias, and the "black box" nature of some artificial intelligence systems may lead to sub-optimal or even poor decisions(Binns 2022). Moreover, in fields where human instincts excel, namely unstructured data or navigating uncertain situations, AI systems can fail. As a result, there is growing recognition of the need for a balance of the special decision-making power of human actors and artificial intelligence capabilities(Rane, Choudhary, and Rane 2024).

1.2. The Role of Human Intuition in Decision-Making

Human intuition is the judgment that comes from subconscious processing and accumulated experience. It is essential for strategic decision-making, particularly in dynamic and uncertain situations(Sadler-Smith and Shefy 2004). Scanty data, algorithms, and human intuition rely on a vast body of tacit knowledge, emotional intelligence, and contextual understanding, unlike artificial intelligence. This allows human decision-makers to deal with situations where the data is incomplete, ambiguous, or contradictory(Kvam et al. 2024).

In this, human intuition can provide insights that transcend mere statistics, especially in high-stakes situations like mergers and acquisitions or crisis management. In these situations where time and evidence are limited, more experienced managers often rely on their intuition (Kahneman and Klein 2009). This underlines the fact that AI and human intuition complement each other because each brings different abilities and skills to the table and attends to the decision-making process.

1.3. The Need for a Balanced Approach

The incorporation of artificial intelligence and human intuition into strategic decision-making creates a paradigm shift in modern management. While artificial intelligence performs excellently by processing organized data to provide opinions, human intuition is necessary for unstructured data analysis, innovations, and ethical dilemmas(Karki et al. 2023). A consensus approach leveraging the advantages of both artificial intelligence and human intuition yields better, more robust, and effective decision-making outcomes.

Striking this equipoise, consequently, requires a deep understanding of both the strengths and limitations of artificial intelligence and human intuition. It also recommends the development of tools and systems to facilitate human-machine collaboration, ensuring decisions are context-informed and data-driven. This study seeks to explore this balance through a comprehensive review of the existing literature and recommendations for how organizations might effectively integrate artificial intelligence with human intuition into their strategic decision-making processes(Islam et al. 2025).

Thus, the focus of this study is to examine how artificial intelligence balances the elements of strategic decision-making in the context of human intuition and machine learning algorithms. The paper specifically seeks.

1. To explore the ability of AI to enhance and/or scale better and/or more efficient decision-making.
2. Consider how human intuition might navigate tricky, competing, and uncertain terrains.
3. Enumerate the challenges and limitations of making decisions using only artificial intelligence or human intuition.

4. Use human intuition matched with artificial intelligence to make a mixed strategy to maximize strategic output.

2. Research Context

With the growing complexity and dynamism of the modern business landscape, organizations are now integrating Artificial Intelligence (AI) into their decision-making processes and stratification. Today , organizations operate in a world characterized by globalization, rapid technical advancements, and an unprecedented volume of data. In this scenario, the ability to make quick, informed , and effective decisions has become a key differentiator for a winning company. With advanced capabilities for data processing, pattern recognition, and predictive analytics (Oluwatamilore Popo – Olaniyan et al. 2023), AI emerged as a powerful tool for enhancing decision-making processes. However, there are downsides to relying too heavily on AI, particularly when the data is ambiguous or missing. In such cases, human cognition - characterized by experience, creativity, and emotional intelligence - becomes critical. The closer this study environment illuminates, the more the significance of understanding how AI & Human intuition can be used together to improve Strategic Decision Making. However, with increasing dependence on AI, there have also been significant questions regarding the value of human judgment and intuition in making decisions, especially regarding complicated and ambiguous situations(Huang and Rust 2021).

3. LITERATURE REVIEW

The intersection of AI and strategic decision-making is an emerging theme in recent academic discussions across disciplines such as management science, computer science, organizational psychology, and decision theory. Such a rich theoretical landscape teaches us meaningful lessons to intersect with the many facets of the complexities of human-AI collaboration during the strategic decision-making stage.

A core element of the literature is the Building of decision support systems (DSS). The original research was done on how well human dependability could be enhanced by using computer-based systems, starting in the 1970s. This study synthesized early ideas about human-technical decision-making aids that are relevant today concerning working with AI. for example, have recently explored the distinction between traditional Decision Support Systems & dealer interactions and AI Systems in terms of their power to learn and agency, arguing that the dimensions of functional breadth mean that AI Systems offer several paths to disruption through the corporate decision-making process(Kvam et al. 2024).

If interested, however, there is a large amount of literature on human cognition in strategic decision-making. By the time the team had formed, research in cognitive psychology and behavioral economics had established both the strengths and the weaknesses of human decision-making. Much research has shown perceptive biases and how these distort strategic decision-making, including confirmation bias, anchoring, overconfidence, etc. By challenging limited human cognition while leveraging this uniquely human intuition, creativity, and emotional intelligence, this work offers key insights into the impact of AI systems on the decision-making skill of human agents(Md Rokibul Hasan et al. 2024).

They are key to providing organizational capabilities that we know from the literature on organizational learning and knowledge management and provide great ways in which organizations can successfully embed AI into their decision-making processes. The study highlights the need for organizations to have capabilities to gather, analyze, and interpret data for further use. It emphasizes the importance of organizational memory and learning processes subject to human and artificial intelligence systems for making decisions(Al-Shuwaikhat 2024).

AI ethics and governance research provide useful reflections on the challenges and accountability required in AI-supported decision-making. That includes investigating fairness in algorithmic bias and transparency and accountability of AI systems(Allam et al. 2023).

Such evidence-based studies that explore AI deployment in different organizational contexts reveal very useful information when it comes to what makes AI succeed or fail. And it shows how important the company culture, support from leadership, and change management processes are for leveraging AI successfully. They also bring the challenges businesses face in building trust in AI systems and developing effective human-AI collaboration strategies to the forefront(Cath 2018).

Recent work has started to explore more complex typologies of human-AI partnerships for strategic decision-making. This study explores avenues for organizations to create effective “hybrid intelligence” systems that exploit the complementary benefits of human and artificial intelligence. Key topics covered

in this literature were frameworks for optimum job allocations, interface design for humans and AI, and organizational processes for making joint decisions(Aldoseri, Al-Khalifa, and Hamouda 2023).

The influence of AI integration on organizational power dynamics and decision-making processes. In this research, we examine how AI adoption changes organizational structure, knowledge networks, and sources of decision-making authority. This study raises many important questions on how enterprises can retain sufficient human oversight and governance while adopting AI capabilities(Abdulrahman M 2024).

In literary criticism, these literary techniques have found their parallel representation of AI-generated data, bringing it into the context of language use, the disenfranchisement through these methodologies, and the potential dangers, despite possible benefits, in AI-facilitated decision-making(Bellini et al. 2024).

These issues span from an over-reliance on algorithmically generated recommendations through possible degradation of human knowledge and judgment to difficulties in sustaining strategic flexibility and adaptability in high-automation decision-making environments. These fears give us good reason to be skeptical of optimistic views of the integration of A.I. and to appreciate the value of careful and sober approaches to its deployment(Aldoseri et al. 2023).

In the past few years, one of the fields to be researched was the realm of Artificial Intelligence (AI), where companies utilize cutting-edge technology to steer better decision-making. This section presents a full literature review, addressing both the importance of AI and human intuition in strategic decision-making, the shortcomings of relevant efforts in fostering a synergistic interaction between them, and the potential for a complementary relationship that targets the strengths of opposing tendencies(McCreight 2024),(Henn et al. 2025).

The Role of AI in Strategic Decision-Making

Insights and predictable actions based on data that give rise to organic solutions will radically change the way strategic decisions are made. General machine learning techniques like neural networks or decision trees have been extensively relied on to analyze complicated data and identify patterns(Shrestha et al. 2019). AI can handle big data in real-time, which has significantly enhanced the precision and speed of decision-making(Abdulrahman M 2024). Analytical resolution through AI technologies is used to predict market trends, streamline the supply chain, and customize the user experience, enabling organizations to make smarter and more strategic decision-making(Booyse and Scheepers 2024).

The main benefit of AI is its ability to handle complex and high-dimensional data, which would be impossible for humans to summarize manually. For example, in banking, AI algorithms detect fraud and assess credit risk, and in health care, we have AI that diagnoses disease and suggests treatments(Topol 2019). These use cases highlight AI's ability to enhance the accuracy, efficiency, or scale of decision-making.

However, relying on AI does pose some risks. For example, algorithmic bias, data quality concerns, and the often-opaque nature of many AI systems can lead to conclusions that are inefficient or harmful(Kahneman and Klein 2009). Moreover, AI systems often struggle to process unstructured data or to navigate ambiguous situations, areas where human intuition flourishes. This has led to a growing recognition of the need to balance the benefits of AI with the unique capabilities of human decision-makers.

3.1. The Role of Human Intuition in Strategic Decision-Making

In particularly complex and uncertain situations, even creating a sophisticated model comes second to human intuition as a crucial ingredient in strategic decision-making. Intuition, defined as the ability to form judgments through automatic processing based on experience, is often used in instances where the available evidence is limited or ambiguous(Kahneman and Klein 2009). In some cases, research shows that experienced managers use intuition to complement data-driven insights during tough times(Sadler-Smith and Shefy 2004).

In crucial moments, such as mergers and acquisitions or crisis management, human intuition can provide intelligence that far exceeds that which can be gleaned from statistics alone. Experienced managers often rely on their gut to make decisions when time is limited or when the evidence is incomplete(Kahneman and Klein 2009). This highlights the complementary nature of AI and human intuition, where each brings unique strengths to the table in making decisions.

In contexts where creativity, empathy, and situational understanding are needed, human intuition is a trump card. Human intuition is often used in marketing to come up with new campaigns that emotionally resonate with consumers(Dane and Pratt 2007). It refers to the employment of human intuition to deal with complex interpersonal dynamics in leadership relationships and make decisions that are aligned with organizational values and culture(Sadler-Smith and Shefy 2004).

3.2. Balancing AI and Human Intuition

A model shift in modern management, for instance, one from AI with human intuition for strategic decision-making. While AI excels at analyzing structured data and generating insights, human intuition plays an essential role in understanding unstructured data, fostering innovation, and managing ethical dilemmas. A balanced strategy that leverages the strengths of both human intuition and AI will yield more dependable and effective decision-making outcomes(Yanamala 2023).

Multiple studies have proposed frameworks to integrate AI and human intuition in decision-making. For instance, a framework suggesting that human-machine collaboration is paramount and that AI should be deployed to complement rather than override human decision-making. Using this method, artificial intelligence (AI) generates insights and recommendations, and human decision-makers provide emotional intelligence and domain knowledge to interpret data and take action(Aldoseri et al. 2023),(Abdulrahman M 2024).

Alternative methods include the use of hybrid decision-making systems with trustable AI decision-making supported by human intuition. Hybrid systems, for example, when applied to the healthcare sector, integrate the expertise of human doctors with AI and consist of the most accurate, personalized care(Topol 2019). Similarly, through the implementation of hybrid systems, the banking sector seeks to integrate the predictive analytics strength of AI and the Utilization of human analysts' risk assessment capabilities to form better and more comprehensive investment decisions(Shrestha et al. 2019).

3.3. Challenges and Limitations

One of the challenges of implementing artificial intelligence poses complications for what would normally be a decision-making process based on human intuition. Algorithm bias is one of the biggest problems. This is when AI can generate biased effects because of biased training data or flawed algorithms(Binns 2022). This can result in suboptimal, even damaging decisions, especially in cultural contexts like hiring, finance , and policing. A second problem is that certain AI systems are "black boxes," meaning that they do not reveal their decision-making process or at least not an interpretable one(Aldoseri et al. 2023). The obfuscation of AI systems can undermine US faith in AI systems, but it can also create higher hurdles for human decision-makers to comprehend or accept the insights generated by the AI Valedictorian.

Furthermore, it's about balancing intelligence with gut decisions and knowing the pros and cons of each system. This will also take the building blocks and the equipment to empower human/ machine collaboration and the context-aware anchoring of choices in records. In this paper, we will review related literature and explore this equilibrium and how firms potentially can succeed at this balance between artificial intelligence and human decision intuition within their strategy decision process(Zhang 2024).

4. MATERIALS AND METHODS

First, this section explains the methodology employed in this study to investigate the intersection of Artificial intelligence (AI) and strategic decision-making, where the battle lines are drawn between the instincts of human leaders and the processing capabilities of computer algorithms. We conducted a systematic literature review (SLR) to review and synthesize the relevant papers on this topic. The preferred methodology was a Systematic Literature Review (SLR), selected due to its ability to create a transparent and repeatable process for reviewing existing relevant literature, ensuring that results are based on a complete and objective evaluation of the extant evidence.

Qualitative and explanatory research design has been used to collect information about the existing knowledge and detect the knowledge gap. A systematic literature review methodology was used to maintain a rigorous and replicable method for searching and reviewing relevant articles. For these cross-disciplinary topics, such as the interface of artificial intelligence and human intuition in decision-making, tasking the umbilical method is more appropriate since it permits a diversity of perspectives and approaches(Kitchenham et al. 2007). Search strategy Data collection was conducted using three main academic databases, including Google Scholar, Scopus, Web of Science, etc., to ensure comprehensive coverage of relevant literature. They comprise high-quality, peer-reviewed journals and conference proceedings from various fields, including management, computer science, and psychology.

The selected studies were subjected to thematic analysis, which is the process of identifying, analyzing, and reporting patterns (themes) within data(Braun and Clarke 2006).

The quality of the studies included in this review was assessed following the guidance of a standardized checklist adapted from previous systematic literature reviews (Kitchenham et al. 2007), providing some validity and reliability to the findings. The checklist included attributes such as clarity of research aims,

methodological rigor, relevance of findings to the research issue, contribution to theory, and implications for practice. Studies that did not satisfy the quality criteria were excluded from the final analysis.

Table.: Comparisons for Important Studies

Study	Focus Area	Key Contribution	AI vs. Human Intuition	Management Implications
Davenport & Ronanki (2018)	AI in real-world applications	Explains how AI can be applied in business decision-making.	AI augments human decision-making.	Practical frameworks for AI integration.
Brynjolfsson & McAfee (2014)	AI and economic impact	Discusses the transformative potential of AI in work and productivity.	AI complements human skills.	Strategic planning for AI adoption.
(Kahneman and Klein 2009)	Human intuition	Explores the conditions under which intuition is reliable.	Intuition is critical in ambiguous scenarios.	Enhances understanding of human judgment.
(Shrestha et al. 2019)	Organizational decision-making	Examines how AI reshapes decision-making structures in organizations.	AI and humans collaborate for better outcomes.	Organizational design for AI integration.
(Raisch and Krakowski 2021)	AI and management	Proposes a framework for balancing automation and augmentation.	AI augments human capabilities.	Hybrid decision-making frameworks.
(Topol 2019)	AI in healthcare	Highlights the role of AI in medical decision-making.	AI supports but does not replace human doctors.	Ethical and practical implications of AI.
Binns (2018)	Algorithmic bias	Discusses fairness and bias in AI systems.	AI can perpetuate biases.	Need for ethical AI frameworks.
(Dane and Pratt 2007)	Intuition in management	Explores the role of intuition in managerial decision-making.	Intuition is vital in creative decisions.	Enhances leadership training programs.
(Agrawal, Gans, and Goldfarb 2019)	Economics of AI	Explains how AI reduces the cost of prediction in decision-making.	AI enhances predictive accuracy.	Strategic use of AI in business.
(Mikalef and Gupta 2021)	AI and organizational creativity	Measures the impact of AI on creativity and firm performance.	AI supports creative processes.	AI-driven innovation strategies.

The comparison table offers an exhaustive overview of ten seminal research articles related to the integration of AI and human intuition in strategic decision-making. Each of the studies is then assessed in terms of study focus, major contribution, view on AI versus human intuition, and managerial implications. This table gives a concise overview of the literature and highlights the complementary roles of AI and human intuition in decision-making. The table highlights the synergetic roles of AI and human intuition in strategy and strategic planning. Influence models and decision-making systems have become more sophisticated through data and AI, but human intuition still plays a key role in ambiguous or complex situations. By using an equitable approach that combines the unique strengths of AI with human intuition, you may achieve decision-making outcomes that are better able to adapt and faster than either process alone. To use AI for decision-making, organizations must resolve challenges like algorithmic bias, ethical issues, etc. Future research should examine hybrid decision-making models as well as the consequences of adopting AI on task-level efficiency.

5. RESULTS AND DISCUSSION

5.1. Discussion

Now, all these factors can together open up insight channels in the decision-making process, almost making a never-ending narrative where AI can supplement strategy with data accuracy, speed in processing, and scaling up these insights without the burden of humans. However, the importance of human intuition should never be underestimated, especially in complex and unclear scenarios. These findings indicate that a multi-factorial approach in which AI is applied alongside human intuition is vital to optimize decision-making. The opportunities presented by this mobilization of research are great, contributing to frameworks that can facilitate multistakeholder collaborations and address concerns around algorithmic bias and ethics(Al-Shuwaikhat 2024).

Artificial Intelligence has fundamentally transformed decision-making by powering companies to analyze massive amounts of data and extract valuable insights. Market PDF reports and all market solutions, such as PDF, Citrix, and web-based solutions, are used to predict trends and index disposals to enhance service(Allam et al. 2023; Gillie and Kent 2024). Nevertheless, AI's reliance on systematic data limits its ability across unstructured or ambiguous situations. According to Binns (2018), this bias and lack of transparency within the AI system could lead to biased and harmful decisions, thus making human oversight imperative(Binns 2022).

Decision-making relies on human intuition but, not just any intuition. They also emphasize that intuition is not only subconscious or random but is more a case of informed experience, creativity, and emotional intelligence(Dane and Pratt 2007; Kahneman and Klein 2009), which allows leaders of any degree to tackle situations, where data appears to be lacking or contradictory. In crisis management, experienced leaders often rely on their intuition to formulate speedy decisions under time pressure(Sadler-Smith and Shefy 2004). This demonstrates the need to complement AI's analytical strength with human intuition.

The combination of AI and human intuition represents a paradigm shift in modern management. AI plus human intuition is the integrated strategy that could yield more resilient and efficient decision-making outcomes; (Aizenberg and Van Den Hoven 2020). In other spheres, hybrid systems amalgamate the diagnostic prowess of AI with the clinical discernment of physicians to provide more accurate and tailored treatment options(Topol 2019). While AI in finance examines market patterns, human analysts provide the contextual understanding required to make sense of such patterns(Shrestha et al. 2019).

While the potential benefits are there, the blending of AI and human intuition comes with challenges. Thus, there are issues such as algorithmic bias, data quality, and the lack of transparency of AI systems that threaten to undermine confidence and the quality of decision-making(Binns 2022). Excessive dependence on AI can also foster disregard for human intuitions, which may lead to sub-optimal decisions in complex situations(Kahneman and Klein 2009). These challenges must be addressed by creating ethical AI frameworks and promoting a culture where humans and robots interoperate.

These findings have important consequences for managerial practice. It requires organizations to establish hybrid decision-making systems that capitalize on the strengths of both artificial intelligence and human intuition(Rane 2023) Managers' training must also emphasize their capacity to analyze AI, their biases, and apply their intuition(Dane and Pratt 2007). Moreover, organizations must address ethical issues like algorithmic bias and transparency to guarantee AI is used responsibly in decision-making(Binns 2022). This facilitates the incorporation of AI findings alongside the seasoned perspectives provided by human volunteers. Even though Al improves choices by analyzing the data and doing audit modeling (requiring prediction data sets), human intuition and judgment are needed in many instances when conditions are complex or uncertain. By combining these strengths, AI and human intuition can support more robust and efficient decision-making processes. Organizations must grapple with challenges such as algorithmic bias and ethical considerations to ensure that AI is being appropriately deployed in decision-making. Future studies should emphasize providing models and means to enable human-robot cooperation to make sure decision and action planning is not only evidence-based but also contextual to specific domains and environments.

5.2. Result

The full literature review results showed several important findings highlighting the disruptive effect AI is bringing to the strategic decision-making process and the future role of intuition in strategic decision-making. The understanding is that AI increases decision-making accuracy and effectiveness. In particular, machine learning algorithms, a subset of artificial intelligence technologies, can analyze big datasets and

recognize patterns in these datasets at an accuracy, speed, and cost that has far exceeded human abil(Anon 2023; Shrestha et al. 2019).

For instance, AI technology is used in finance to recognize fraudulent transactions, while in healthcare, it is used to identify health issues, revealing how AI can facilitate decision-making (Agrawal et al. 2019; Topol 2019). For complex and ambiguous cases, human intuition is essential. For complex and ill-defined contexts, where the required data are incomplete or undetermined, human intuition relying on experience, creativity, and emotional intelligence is indispensable(Dane and Pratt 2007; Kahneman and Klein 2009).

For more complex cases like mergers and acquisitions or crisis management situations, the amount of information that can be known and acted on based on human gut feeling is greater than what can be determined from data sources alone(Sadler-Smith and Shefy 2004). To summarize, the integration of AI's efficiency and human intuition helps stakeholders make the right decisions for their strategies, achieving greater effectiveness and adaptability. This results in improved outcomes by utilizing the strengths of AI technology indifferent to human intuition (Raisch and Krakowski 2021).

A mix of both AI analytical strength and human judgment is applied in hybrid decision-making systems within healthcare, banking, and marketing(Paschen, Wilson, and Ferreira 2020; Topol 2019). While algorithmic bias and excessive dependence on AI have the potential to undermine trust and the quality of decision-making, these issues demonstrate the importance of human intervention(Binns 2022; Raisch and Krakowski 2021).

Over-dependence of humans on AIs may cause humans not to identify and recognize their own inner feelings, which may lead them to wrong decisions in complicated situations (Kahneman and Klein 2009).

The results & analysis suggest that AI can complement human judgment and intuition toward strategic decision-making. While AI is capable of processing data and predictive analytics, human intuition is an asset that cannot be substituted if the condition is complex and hazy. The synthesis of these two domains can yield a better and stronger decision-making process. Teams shouldn't stop at implementing appropriate measures for AI decision-making, addressing algorithmic bias and ethics, and other challenges. Future work should thus concentrate on creating frameworks and tools for improving human-robot collaboration, allowing data-driven, contextually grounded decision-making.

This research will have wide-ranging implications for the very convergence of artificial intelligence with human intuition in strategic decision-making. This work complements other literature that has explored the synergistic effects between AI and human cognition: it should be a joined-up approach that addresses both. Building the foundation for future research into mixture systems for decision-making, which combine data-driven knowledge with human capability. The study indicates the need for a tool and framework to enhance the collaboration between humans and technology. These frameworks should emphasize enhancing and appropriately leveraging human decision-makers' ability to understand insights produced by AI and make use of intuition in challenging environments.

It shows that any use of AI for decision-making must start with a consideration of ethical implications. Next, we need to deal with algorithmic bias, transparency, and accountability. With the current issues in mind, future research may entail developing frameworks for ethical AI with how to mitigate these issues through rules. There are several ways this study shows how AI and human intuition interact in the form of multidisciplinary research. Fine-tuning the blend of AI and human intuition for decision-making will require research collaboration across disciplines, including management, computer science, and psychology. The implications provide academics and practitioners interested in improving decision-making in a data-driven environment with deep insights.

This is illustrative research but has its limits; it displays the importance of AI and the human brain in the strategic decision-making process. The study design is a systematic review, which can fail to include important data published in grey literature or unpublished studies. There may be an English language bias in the literature search, missing critical research in other languages. Secondly, AI technology is capable of advancing quickly, and thus, the findings of this study will need to be updated rapidly should competing innovations emerge. To reflect these changes, literature needs to be up to date and amended. These findings stem from a literature review and may not fit every sector or organization. More practical evidence is necessary to confirm the findings in different settings.

Note: All articles on this platform are laid on top of our Institutional Review Board protocols on data protection, computer security, and open content ethics. Research should also be conducted on ethical AI frameworks that deal with challenges such as algorithmic bias and transparency. Multidisciplinary research can give us insights into the intersection between AI and human intuition; however, more

empirical investigations are required to validate the findings across different sectors. Longitudinal studies are required to understand AI's longer-term impact on decision-making and outcomes. By addressing these limitations and exploring new directions for research, researchers and practitioners can improve decision-making in a complex, data-driven world.

6. CONCLUSION

The incorporation of AI in strategic decision-making highlights a paradigm shift in management systems of the future. This study aims to showcase the synergistic relationship between AI and human intuition, emphasizing that the former enhances the latter and vice versa through collaborative collaboration. AI enables us to gain more accurate, speedier, and more scalable analytical insights toward deriving their meaning and the underlying principle from vast amounts of data, harvesting significance from large data sets, and finding trends that would be difficult or next to impossible to detect in a manual operation.

Its applications in these areas illustrate the potential for transforming the way decision-making is done, especially in data-heavy domains like banking, health care, and supply chain management. But in complex, ambiguous, and uncertain situations, human intuition is scarce and irreplaceable, breakthroughs in AI notwithstanding. Experience, creativity, emotional intelligence, and umbrella intuition provide us with guidance more profound than what numbers can reveal to us, and that's important, especially when high stakes are involved.

Thus, establishing the equal coloration of the strengths of both AI and human instinct will lead to enormously more robust and competent decision-making outputs. Gradually, evolved hybrid methods are being utilized to give strategic decisions that merge AI analytical insight with that of human wisdom. However, integrating AI in this manner is not without its challenges, such as algorithm bias, the "black box problem" of transparently functioning models, and becoming overly dependent on AI. Such issues can be eliminated where human supervision is necessary to have a fair, accurate, and transparent decision-making process. The conclusions drawn from this study highlight the need for developing frameworks and tools that promote human-machine collaboration, making it possible for data- and context-driven decision-making.

This study calls for ethical deliberation in the use of AI for decision-making. Future studies should target the formation of ethical AI structures to tackle concerns like algorithmic bias, visibility, and responsibility. Furthermore, interdisciplinary research is necessary to develop a holistic understanding of the relationship between AI and Human intuition. An interface across management, computer science, and psychology here can help form a few key insights around how best to leverage AI in concert with human intuition in the decision-making process.

Moreover, the integration of AI and human intuitions in strategic decision-making presents significant opportunities to improve the accuracy, efficiency, and scalability of decisions. The mastery of this integration means an equitable approach that draws on the strengths of both AI and human intuition and seeks a path through the complex issues of algorithmic bias and moral quandary. Finally, for future research, it could be beneficial to develop hybrid frameworks or consider empirical and transdisciplinary research to test ethical AI frameworks to reinforce our understanding of the fluid relationship between AI and ethics. The ability to make informed decisions and produce superior outcomes in the context of a complicated, data-driven world is only possible if organizations have access to the right data.

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