
ARTIFICIAL INTELLIGENCE AND WISE DECISION MAKING IN BUSINESS: THE STRATEGIES AND PROSPECTS

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ABSTRACT

This paper explores the transformative role of Artificial Intelligence (AI) in enhancing wise decision-making within the business environment, focusing on both strategic implementation and future prospects. As AI technologies evolve, they offer unprecedented capabilities in data analysis, forecasting, and automation, enabling businesses to make more informed, timely, and objective decisions. However, the integration of AI into decision-making processes also presents challenges related to ethics, data quality, transparency, and the need for human oversight. This study examines the integration of AI into business decision-making processes extends beyond operational efficiency, influencing strategic areas such as innovation management, customer engagement, supply chain optimization, and risk assessment. AI-based systems not only assist in reducing cognitive biases but also enable managers to simulate future scenarios and evaluate strategic options with greater accuracy. These capabilities empower organizations to make "wise" decisions that balance short-term performance with long-term sustainability (Jarrahi, 2021; Chatterjee et al., 2021). Such strategic foresight is crucial in an environment marked by uncertainty, disruption, and accelerated digital transformation. It was concluded that while AI enables predictive analytics, process automation, and personalized customer engagement, its long-term prospects lie in fostering adaptive strategies that balance technological capabilities with ethical considerations and human creativity. One of the recommendations is that businesses should not fully automate strategic decisions with AI. Instead, combine AI insights with human judgment to ensure contextual understanding and ethical considerations are addressed.

Keywords: Artificial Intelligence, Wise Decision, Business, Strategies and Prospects

INTRODUCTION

Artificial Intelligence (AI) has emerged as one of the most transformative technologies in the modern business landscape, reshaping traditional approaches to strategy formulation and decision-making. By leveraging AI-driven tools such as machine learning, natural language processing, and predictive analytics, organizations are increasingly able to process vast amounts of data, detect patterns, and generate actionable insights in real time. This shift enhances the precision, speed, and objectivity of business decisions, positioning AI as a cornerstone of competitive advantage in the digital economy (Ransbotham, 2021; Mikalef, 2021). The integration of AI into business decision-making processes extends beyond operational efficiency, influencing strategic areas such as innovation management, customer engagement, supply chain optimization, and risk assessment. AI-based systems not only assist in reducing cognitive biases but also enable managers to simulate future scenarios and evaluate strategic options with greater accuracy. These capabilities empower organizations to make "wise" decisions that

balance short-term performance with long-term sustainability (Jarrahi, 2021; Chatterjee et al., 2021). Such strategic foresight is crucial in an environment marked by uncertainty, disruption, and accelerated digital transformation.

Despite its promise, the adoption of AI for wise decision-making is not without challenges. Ethical considerations, data governance, algorithmic transparency, and the risk of overreliance on automated systems present critical barriers that businesses must navigate. Moreover, the effectiveness of AI in decision-making is highly dependent on organizational culture, digital maturity, and leadership commitment to embedding AI into core processes (Shrestha et al., 2021; von Krogh, 2021). Addressing these challenges is essential to ensuring that AI enhances rather than undermines human judgment in business contexts. Looking ahead, the prospects of AI in business decision-making are vast, with trends pointing toward more collaborative human-AI ecosystems where technology augments rather than replaces managerial wisdom. Future strategies will likely emphasize hybrid intelligence, where human intuition and ethical reasoning are combined with AI's analytical power to achieve robust decision outcomes. As businesses continue to embrace AI-driven models, research underscores the importance of aligning technological capabilities with strategic objectives and societal values, ensuring that decision-making remains both effective and responsible (Dwivedi et al., 2021; Ransbotham et al., 2021).

Concept of Artificial Intelligence

The term artificial intelligence is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. According to Copeland (2025), artificial intelligence (AI) is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. Furthermore, Staff (2024) stated that artificial intelligence (AI) refers to computer systems capable of performing complex tasks that historically only a human could do, such as reasoning, making decisions, or solving problems.

Xu. (2021) explained that artificial intelligence (AI) coupled with promising machine learning (ML) techniques is a field in computer science that is broadly affecting many aspects of various fields, including science and technology, industry, and even our day-to-day life. The ML techniques have been developed to analyze high-throughput data with a view to obtaining useful insights, categorizing, predicting, and making evidence-based decisions in novel ways, which will promote the growth of novel applications and fuel the sustainable booming of AI. Artificial intelligence (AI) is capable of enabling computational systems to perform tasks typically associated with human intelligence, such as learning, reasoning, problem-solving, perception, and decision-making. It is a field of research in computer science that develops and studies methods and software that enable machines to perceive their environment and use learning and intelligence to take actions that maximize their chances of achieving defined goals.

Scott (2025) explained that artificial intelligence (AI) technology allows computers and machines to simulate human intelligence and problem-solving tasks. The ideal characteristic of artificial intelligence is its ability to rationalize and take action to achieve a specific goal. More so, Craig (2024) mentioned that artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems. Examples of AI applications include expert systems, natural language processing (NLP), and speech recognition and machine vision. In addition, JETIR (2019) asserted that computers are designed to act like humans in this branch of computer science. Artificial intelligence encompasses games, advanced devices, neural networks, the language of design, and robotics. There are actually no machines with full artificial (that is, they can mimic human behavior) intellect.

Concept of Wise Decision-Making

The process of selecting courses of action that combine good judgment, moral concerns, and contextual knowledge with the goal of achieving long-term advantages for the general welfare is known as wise decision-making. To reach a judgment that is both logical and ethically just, wisdom entails striking a balance between a variety of viewpoints, values, and emotions, in contrast to simple intelligence or technical proficiency. According to Brienza (2021), wise decision-making is characterized by intellectual humility, recognition of uncertainty, and the ability to take multiple viewpoints before concluding.

One of the foundational elements of wise decision-making is wise reasoning, which emphasizes cognitive strategies such as perspective-taking, compromise, and acknowledgement of change and uncertainty (Peetz & Grossmann, 2021). Wise reasoning promotes constructive dialogue and helps reduce polarization in interpersonal and intergroup contexts (Brienza, 2021). Research shows that individuals who reason wisely tend to experience more positive relationships and better conflict management outcomes (Koetke, 2024).

In addition to cognitive strategies, emotional factors play a significant role. Emotions such as awe have been found to promote wise reasoning by encouraging self-transcendence and reducing egocentric thinking (Wu, 2023). This means that individuals who experience awe are more likely to adopt broader perspectives and make decisions that consider the well-being of others. Similarly, intellectual humility—a key predictor of wise decision-making—enables individuals to acknowledge the limits of their knowledge, remain open to alternative viewpoints, and adapt their decisions based on new evidence (Koetke, 2024; Porter, 2022).

From an ethical perspective, practical wisdom, also known as 'phronesis', plays an essential role in guiding wise decision-making. Phronesis is described as the capacity to integrate moral values with situational awareness, enabling individuals to make “the right decision, at the right time, for the right reason” (Kristjánsson, 2021). This strategy is especially applicable in complex situations where strict obedience to regulations might not be enough, like in healthcare and education. Studies have shown that practical wisdom allows professionals to navigate conflicting values, adapt to uncertainty, and act with moral integrity (Conroy, 2021; Kristjánsson, 2024).

Wise decision-making also requires the ability to balance abstract principles with concrete situational details. According to Grossmann (2024), wise thinkers alternate between high-level conceptual reasoning and specific, contextual considerations, which allows them to apply moral principles flexibly in real-life situations. This flexibility is essential in environments characterized by uncertainty and rapid change.

Another critical component is meta-intelligence, which involves coordinating analytical, creative, practical, and wisdom-based approaches to problem-solving (Sternberg, 2021). Decision-makers can more effectively frame issues and produce solutions that support both short-term and long-term goals by utilizing meta-intelligence. Furthermore, emotional intelligence has been linked to wise reasoning through its role in emotion regulation and interpersonal understanding, both of which support balanced and thoughtful decision-making (Schneider et al., 2021).

Business decision making

According to Akpan & Goddymkpa (2023), A business decision, often known as a "operational decision," is any choice made by a business professional that influences the short-term or long-term operations of the organization. Professionals make business judgments in response to a range of conditions, such as deciding which job candidate to recruit, how to distribute department budgets, when to enter a new product market, whether to merge branches, and other situations that necessitate well-thought-out actions.

As noted by Profit.co (2025), business decisions can be operational, strategic, financial, technological, or policy-related, all affecting the success and efficiency of a company. Business decisions involve making choices that determine short-term and long-term organizational activities. Business executives can think, evaluate information, and priorities their objectives with the use of decision-making tools. Additionally, they dispel prejudices and myths, resulting in practical business decisions that produce favorable outcomes. Implementing an efficient decision-making process is essential to managing successful business operations because of the sheer amount of options to weigh and the volume of decisions that need to be made often, especially in large organisations.

A decision-making process is a series of steps a person takes to determine which option or course of action will best meet their needs. It is a collection of procedures done by enterprise managers to define the intended course for company initiatives and to set particular measures in motion (Kate, 2022). Ideally, business decisions should be founded on an analysis of objective facts, which is made possible by the application of analytics and business intelligence (BI) tools. There are many different directions a plan or project might go in any corporate context. Implementing an efficient decision-making process is essential to managing successful business operations because of the sheer amount of options to weigh and the volume of decisions that need to be made often, especially in large organisations.

The roles of Artificial Intelligence In Wise Decision Making In Business

Artificial Intelligence (AI) plays a transformative role in enhancing decision-making processes in modern business environments. By leveraging large volumes of data, AI systems can identify patterns, predict outcomes, and provide evidence-based insights that inform strategic decisions. Machine learning algorithms, for instance, enable businesses to analyse customer behavior, market trends, and operational inefficiencies in real-time, significantly reducing uncertainty and improving the accuracy of decisions (Davenport & Ronanki, 2018). AI is a vital tool for company executives looking to make timely and well-informed choices because of its ability to handle complicated data sets more quickly and accurately than human analysts

Predictive analytics is one of the areas where AI has made the most impact on decision-making. To assist executives in selecting the best course of action, artificial intelligence (AI) technologies can predict market demand, identify possible hazards, and model different business situations. For example, in the retail sector, AI-driven tools analyse past sales data and customer preferences to optimize inventory levels and personalize marketing campaigns (Chatterjee, Rana, & Sharma, 2021). In addition to increasing productivity, these predictive skills also save expenses and raise customer happiness, all of which are critical components of long-term company success.

Furthermore, AI supports decision-making by enabling automation and real-time responsiveness. In operational management, AI-powered systems can make autonomous decisions based on pre-set rules and data inputs, such as adjusting supply chain logistics or managing energy consumption in manufacturing (Bughin, 2017). This type of intelligent automation expedites reaction times, lowers human error, and frees up human decision-makers to concentrate on higher-impact, more strategic problems. Businesses may improve their competitiveness and agility in dynamic market settings by incorporating AI into their core operations

To guarantee responsible use, ethical supervision and human judgment are also necessary when integrating AI into decision-making. AI is excellent at data-driven insights, but it lacks the moral reasoning and contextual knowledge that are frequently necessary for complicated commercial decisions. Therefore, a hybrid model—combining AI's analytical power with human intuition and ethical considerations—yields the wisest outcomes (Shrestha, 2019). As AI continues to evolve, its role in decision-making will increasingly shift from a support function to a collaborative partner in shaping business strategies.

Strategies of Adopting Artificial Intelligence in Wise Decision Making in Business

A wise AI adoption program starts by making the decision—not the model—the unit of design. Define the recurring choices that create value (e.g., whom to target, how to price, what to stock), specify success metrics, and pair them with causal questions and testable policies. In practice, this means designing uplift/causal experiments (A/B or multi-armed bandits), encoding assumptions in causal graphs, and optimizing for the quality of treatment assignment (who gets what action) rather than just accurate predictions. Research in data science shows that causal decision making (CDM) differs from causal effect estimation (CEE), and that optimizing assignment can improve outcomes even when effect sizes are noisy—an insight that helps firms prioritize experimentation, counterfactual thinking, and policy simulation over pure forecasting. Build a closed-loop pipeline where each decision produces feedback to update both models and policies. (Fernández-Loría & Provost, 2022).

Second, operationalize human-AI collaboration so the system remains trustworthy and accountable. Establish role-clear “human-in-the-loop” checkpoints for high-impact calls; calibrate the weight given to AI recommendations based on competence, uncertainty, and operator trust; and institutionalize explainable AI (XAI) to make model rationales auditable to managers, risk teams, and customers. Evidence from organizational psychology links appropriate trust and weight-of-advice to better joint decisions, while technical surveys show that XAI-enabled decision support systems increase transparency and user acceptance—key ingredients of wise adoption. Train decision owners to interpret explanations (e.g., counterfactuals, feature attributions), log overrides with reasons, and review them in regular governance meetings so the organization learns when to defer to the machine and when to challenge it. (Kostopoulos, Davrazos, & Kotsiantis, 2024).

Finally, scale with responsible operations: robust data governance, ML Ops, and continuous monitoring aligned to decision risk. Standardize data lineage and quality checks; version models and policies; stress-test decisions under distribution shift; and require pre-deployment evaluation that includes business KPIs, fairness checks, and explanation fidelity (does the explanation actually reflect model behavior?). After launch, track calibration, drift, and decision outcomes—and tie them to escalation runbooks. Use dashboards that surface policy-level metrics (e.g., net lift vs. control, cost of errors) alongside model metrics so executives can judge wisdom, not just accuracy. Periodic “premortems,” red-team reviews, and governance rituals (e.g., approval gates by decision tier) keep AI aligned with strategy and stakeholders. (Wen, 2025).

The Prospect of Artificial Intelligence In Business Wise Decision

➤ Data Processing and Predictive Power

Jordan and Mitchell (2015) highlight the powerful role of artificial intelligence in data processing and predictive capabilities. Their research indicates that one of AI's biggest benefits is its capacity to accurately and quickly interpret massive amounts of both structured and unstructured corporate data. AI can find hidden patterns, anomalies, and correlations in the massive amounts of data that businesses already gather from market activity, supply chain systems, and customer purchases. With the use of this capability, managers may now make prompt, well-informed judgments that were beforeh unattainable through manual procedures.

➤ Predictive and Prescriptive Analytics

Davenport and Ronanki (2018) explore how AI's dual role in predictive and prescriptive analytics enhances decision-making. Predictive analytics anticipates likely outcomes—such as customer churn or

demand surges—while prescriptive analytics goes further by recommending specific courses of action. For instance, AI might forecast rising demand for a product and simultaneously suggest optimal inventory adjustments. This synergy reinforces strategic foresight with actionable execution.

➤ **Reducing Human Bias**

These writers stress how AI might lessen human prejudice in judgement. AI, when taught on fair and diverse data, evaluates options based solely on evidence, whereas human judgment is subject to emotional impact and inconsistencies. AI, for instance, can assist in the objective evaluation of applicants throughout the employment process, based on their qualifications rather than their subjective perceptions, so encouraging equity and reasoned decision-making.

➤ **Operational Efficiency & Automation**

McAfee and Brynjolfsson emphasize how AI might increase operational effectiveness. Businesses save money and free up human resources for strategic responsibilities by automating repetitive processes like data entry, report preparation, and customer enquiries. AI reduces waste and delays in logistics by forecasting maintenance requirements and optimizing delivery routes. Thus, adaptability and efficiency in turn become organizational strengths.

➤ **Ethical Concerns & Human Oversight**

Brynjolfsson & McAfee (2017) also warn of the pitfalls accompanying AI adoption. Overreliance on algorithms may erode human judgment; misuse of personal data may undermine trust; and potential biases in AI systems can result in unfair decisions. They advocate for a hybrid model: AI-enhanced insights combined with ethical governance and human oversight. That balance is essential for decision-making that is both wise and responsible.

➤ **Strategic Decision-Making & Resilience**

In addition to bias reduction, Shrestha (2019) and colleagues stress that AI enhances strategic decision-making. By integrating global data—market trends, disruptions, consumer sentiment—AI enables organizations to adapt quickly to crises and opportunities. This strategic agility fosters resilience, helping companies sustain long-term performance in volatile environments.

➤ **Enhancing Customer Experience**

Davenport and Ronanki (2018) also delve into AI's transformative impact on customer experience. Through personalized recommendation engines and 24/7 AI-powered support systems (like chatbots), businesses can tailor services to individual preferences and respond instantly to enquiries. These capabilities build stronger customer relationships and drive loyalty—an essential aspect of wise and sustainable business growth.

➤ **Systematic Review of AI-Based Business Strategy**

This thorough assessment of the literature summarises recent advancements in AI-based decision-making across industries, much like the goal of a Gaspro journal-style study. It comes to the conclusion that by raising production, reducing expenses, and improving customer happiness, AI greatly increases strategic efficiency and effectiveness. Yet, it also notes persistent risks—data security, fairness, transparency, and overreliance on automation—that businesses must manage with care. (Hidayah, 2023)

CONCLUSION

In conclusion, artificial intelligence (AI) is rapidly transforming business decision-making by enhancing efficiency, accuracy, and foresight, offering strategies that blend data-driven insights with human judgment to achieve wiser outcomes. While AI enables predictive analytics, process automation, and personalized customer engagement, its long-term prospects lie in fostering adaptive strategies that

balance technological capabilities with ethical considerations and human creativity. Businesses that effectively integrate AI into decision-making frameworks will not only gain competitive advantages but also build resilience and sustainability in an increasingly dynamic and uncertain global market.

RECOMMENDATIONS

1. Businesses should not fully automate strategic decisions with AI. Instead, combine AI insights with human judgment to ensure contextual understanding and ethical considerations are addressed.
2. It helps to train leaders and employees on AI's capabilities, risks, and how to interpret outputs.
3. It helps to establish robust data governance frameworks to ensure the accuracy, relevance, and security of the data feeding AI systems.

REFERENCES

- Akpan, E. E., & Goddymkpa, C. P., (2023), an assessment of operations research: a panacea for problem-solving intelligent business decision making. *International Journal Of Educational and Scientific Research Findings*, (5)1, 67-70.
- Brienza, J. P., Grossmann, I., & Bobocel, D. R. (2021). Wise reasoning, intergroup positivity, and attitude polarization across contexts. *Nature Communications*, 12, 3885.
- Bughin, J., Hazan, E., Ramaswamy, S., Chui, M., Allas, T., Dahlström, P., & Trench, M. (2017). Artificial intelligence: The next digital frontier? McKinsey Global Institute.
- Chatterjee, S., Rana, N. P., & Sharma, A. (2021). Artificial intelligence in business: Insights from a systematic literature review and future research directions. *Journal of Business Research*, 124, 329-343.
- Chatterjee, S., Rana, N. P., Tamilmani, K., & Sharma, A. (2021). The next frontier for the digital economy: Artificial intelligence in decision making. *Journal of Business Research*, 131, 602-609. <https://doi.org/10.1016/j.jbusres.2020.11.013>
- Conroy, M., (2021). Using practical wisdom to facilitate ethical decision-making: A major empirical study of phronesis in doctors' decision narratives. *BMC Medical Ethics*.
- Copeland B. J. (2025). Artificial intelligence. Available at: <https://www.britannica.com/technology/artificial-intelligence>
- Craig L. (2024). What is AI? Artificial Intelligence explained. Available at: <https://www.techtarget.com/searchenterpriseai/definition/AI-Artificial-Intelligence>
- Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, 96(1), 108-116.
- Dwivedi, Y. K., et al. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2019.08.002>
- Fernández-Loría, C., & Provost, F. (2022). Causal decision making and causal effect estimation are not the same... and why it matters. *INFORMS Journal on Data Science*, 1(1), 4-16. <https://doi.org/10.1287/ijds.2021.0006>
- Grossmann, I., (2024). The wise mind balances the abstract and the concrete. *PNAS Nexus*.
- Jarrahi, M. H. (2021). Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. *Business Horizons*, 64(6), 749-761. <https://doi.org/10.1016/j.bushor.2021.02.021>
- JETIR. (2019). the Concept of Artificial Intelligence. Arun Singh, Department of Computer Science and Engineering Galgotias University, Yamuna Expressway Greater Noida, Uttar Pradesh 6(3), 2349-5162
- Kate B. (2022). Decision-making process. Available at: <https://www.techtarget.com/searchbusinessanalytics/definition/decision-making-process>
- Koetke, J., (2024). Intellectual humility and constructive responses to conflict. *PLOS ONE*.
- Kostopoulos, G., Davrazos, S., & Kotsiantis, S. (2024). Explainable Artificial Intelligence-Based Decision Support Systems: A recent review. *Electronics*, 13(14), 2842. <https://doi.org/10.3390/electronics13142842>

- Kristjánsson, K. (2021). Phronesis (practical wisdom) as a type of contextual integrative ethical decision-making. *Review of General Psychology*.
- Kristjánsson, K. (2024). Aristotelian practical wisdom as the key to professional ethics in teaching. *Education Sciences*.
- Mikalef, P., Krogstie, J., Pappas, I. O., & Pavlou, P. (2021). Exploring the relationship between big data analytics capability and competitive performance: The mediating roles of dynamic and operational capabilities. *Information & Management*, 58(3), 103434. <https://doi.org/10.1016/j.im.2020.103434>
- Peetz, J., & Grossmann, I. (2021). Wise reasoning about the future and anticipated conflicts. *Social Psychological and Personality Science*.
- Porter, T., (2022). Predictors and consequences of intellectual humility. *Personality and Social Psychology Review*.
- Profit.co, (2025). The Best Guide To Understanding What Decision Making Is. Available at: <https://www.simplilearn.com/tutorials/mba-preparation-tutorial/what-is-decision-making-explained>
- Ransbotham, S., Khodabandeh, S., Fehling, R., LaFountain, B., & Kiron, D. (2021). *Expanding AI's impact with organizational learning. MIT Sloan Management Review and Boston Consulting Group. <https://sloanreview.mit.edu/projects/expanding-ais-impact-with-organizational-learning>
- Schneider, T. R., (2021). Emotional intelligence predicts wise reasoning. *Journal of Theoretical and Philosophical Psychology*.
- Scott G. (2025). Artificial Intelligence (AI): What It Is, How It Works, Types, and Uses. Available at: <https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp>
- Shrestha, Y. R., Ben-Menahem, S. M., & Krogh, G. von. (2021). Organizational decision-making structures in the age of artificial intelligence. *California Management Review*, 63(4), 66-96. <https://doi.org/10.1177/00081256211027699>
- Shrestha, Y. R., Ben-Menahem, S. M., & von Krogh, G. (2019). Organizational decision-making structures in the age of artificial intelligence. *California Management Review*, 61(4), 66-83.
- Staff C. (2024). What Is Artificial Intelligence? Definition, Uses, and Types. Available at: <https://www.coursera.org/articles/what-is-artificial-intelligence>
- Sternberg, R. J. (2021). Meta-intelligence: Interactivity between analytical, creative, practical, and wisdom-based approaches. *Journal of Intelligence*.
- von Krogh, G. (2021). Artificial intelligence in organizations: New opportunities for phenomenon-based theorizing. *Academy of Management Discoveries*, 7(3), 357-365. <https://doi.org/10.5465/amd.2019.0054>
- Wen, Y. (2025). Trust and AI weight: Human-AI collaboration in organizational management decision-making. *Frontiers in Organizational Psychology*, 2, 1419403. <https://doi.org/10.3389/forgp.2025.1419403>
- Wu, Q., (2023). Awe promotes wise reasoning via self-transcendence (adolescents). *Frontiers in Psychology*.



Xu Y., Liu X., Cao X., Huang C., Liu E., Qian S., Liu X., Wu Y., Dong F., Qiu C., Qiu J., Hua K., Su W., Wu J., Zu H., Han Y., Fu C., Yin Z., Liu M., Roepman R., Zhang J. (2021). Artificial intelligence: A powerful paradigm for scientific research. The Innovation, 2(4), 100179.