



Artificial Intelligence in Business Management: A Revolution in the Decision Making

Priyanka Malu, Department of Management
Vivekanand Mahavidyalaya, Raipur, Chhattisgarh, INDIA

ORIGINAL ARTICLE



Author

Priyanka Malu

E-mail : priyanka.jain1310@gmail.com

shodhsamagam1@gmail.com

Received on : 16/08/2025
Revised on : 14/10/2025
Accepted on : 23/10/2025
Overall Similarity : 06% on 15/10/2025



Plagiarism Checker X - Report

Originality Assessment

6%

Overall Similarity

Date: Oct 15, 2025 (04:05 PM)
Matches: 141 / 2211 words
Sources: 11

Remarks: Low similarity detected, consider making necessary changes if needed.

Verify Report:
Scan this QR Code



ABSTRACT

The swift progression of Artificial Intelligence (AI) is reshaping the realm of business management by altering decision-making processes, enhancing operational effectiveness, and improving customer interactions. AI-powered technologies, including machine learning, natural language processing, and predictive analytics, empower organizations to automate tasks, interpret intricate datasets, and provide tailored experiences. This transformation boosts strategic planning, resource management, and innovation while also presenting challenges concerning ethics, data protection, and workforce adaptation. As companies progressively incorporate AI into their fundamental operations, the focus of managers pivots from traditional administration to harnessing intelligent systems for sustainable development. This paper investigates the revolutionary effects of AI on business management, emphasizing the opportunities, challenges, and future pathways for establishing competitive advantages in a swiftly changing digital economy.

KEY WORDS

Artificial Intelligence, Technologies, Business Management, Decision Making.

INTRODUCTION

In the 21st century, swift technological innovations are altering the ways in which businesses function, compete, and expand. Among these innovations, Artificial Intelligence (AI) has surfaced as a transformative element capable of revolutionizing business management methodologies. AI is defined as the imitation of human intelligence within machines,

enabling them to learn, reason, and make decisions. With the capacity to analyze large amounts of data, recognize patterns, and deliver actionable insights, AI has transitioned from the realm of science fiction to an essential component of organizational strategies and operations. Business management, which has typically depended on human knowledge and manual procedures, is experiencing a significant shift with the advent of AI. Today's managers encounter the challenge of maneuvering through ever-evolving markets characterized by unpredictability, competition, and a necessity for innovation. AI-driven systems, such as predictive analytics, machine learning models, and natural language processing applications, provide organizations with the capability to make informed decisions based on data, boost efficiency, and craft customized customer experiences. By optimizing supply chains, predicting market developments, automating administrative operations, and enhancing financial planning, AI is impacting every aspect of management. The importance of AI in business management goes beyond just operational effectiveness. It is also redefining strategic planning and leadership roles. Managers are moving away from routine administrative tasks and are increasingly expected to utilize intelligent systems to foster innovation, agility, and gain a competitive edge. Nevertheless, this revolution brings forth challenges, including ethical dilemmas, data security threats, workforce disruptions, and the necessity for ongoing reskilling. Organizations that do not tackle these challenges may encounter resistance or lost opportunities in the global digital economy. This research paper investigates the groundbreaking influence of AI on business management, concentrating on its applications, advantages, and possible risks. By utilizing theoretical frameworks and practical insights, it explores how AI technologies are altering decision-making, operations, and customer relationships while also emphasizing the adoption challenges. Additionally, the paper considers the wider implications of AI for managers, employees, and policymakers, stressing the importance of ethical and responsible integration of intelligent systems. In an age where data is viewed as the "new oil," AI has established itself as a pivotal catalyst for organizational change. Grasping its role in business management is vital for equipping enterprises to flourish in an increasingly digital and competitive landscape.

In today's age of digital transformation, Artificial Intelligence (AI) stands out as a significant disruptive element reshaping various industries across the globe. Companies are progressively implementing AI technologies to improve efficiency, boost productivity, and maintain competitiveness in a rapidly evolving international market. Unlike conventional management approaches that heavily depend on human judgment and manual processes, AI equips organizations with data-driven insights, automation, and predictive abilities. From enhancing supply chain operations and refining financial decisions to customizing customer engagements and optimizing workforce management, AI is fundamentally changing all facets of business operations. The adoption of AI in business management extends beyond mere technological progress; it represents a fundamental change in how organizations tackle problem-solving, develop strategies, and exercise leadership. Nonetheless, these opportunities are accompanied by significant challenges concerning data security, ethical implications, workforce displacement, and the imperative for reskilling. It is essential for managers, entrepreneurs, and policymakers to recognize both the potential advantages and limitations of AI as they navigate this revolutionary landscape. This paper explores the evolving function of AI in business management, analyzing its applications, advantages, challenges, and the future direction of intelligent systems in fostering sustainable and innovative enterprises.

Objective

The main goal of this research is to investigate the transformative impact of Artificial Intelligence (AI) on contemporary business management by evaluating its applications, advantages, and challenges. The study intends to determine how AI-powered tools and strategies improve decision-making, operational efficiency, customer engagement, and overall organizational performance. Furthermore, the research aims to examine the future possibilities and ethical considerations of AI integration in business practices to offer a thorough understanding of its revolutionary influence.

Theoretical Background

The utilization of Artificial Intelligence (AI) in business management is supported by various theoretical frameworks that explain technological evolution, organizational adjustment, and managerial decision-making. Grasping these theories lays the groundwork for examining how AI reshapes contemporary businesses.

- 1. Technology Acceptance Model (TAM):** Formulated by Davis (1989), TAM posits that the acceptance of emerging technologies hinges on their perceived usefulness and ease of use. In the realm of AI, both managers and employees are more inclined to embrace AI tools when they see their potential to enhance efficiency and decision-making.
- 2. Resource-Based View (RBV):** As stated by Barney (1991), competitive advantage arises from distinct organizational resources that are valuable, rare, difficult to replicate, and irreplaceable. When well-integrated, AI systems function as strategic assets that enable companies to utilize big data, predictive analytics, and automation for sustainable benefits.
- 3. Dynamic Capabilities Theory:** Teece, Pisano, and Shuen (1997) highlighted that businesses need to continually adapt to evolving environments through dynamic capabilities. AI enhances these capabilities by facilitating real-time analysis, quick problem resolution, and strategic flexibility in uncertain market conditions.
- 4. Decision-Making Theories:** Conventional decision-making models reveal bounded rationality (Simon, 1972), which indicates that human decision-making is restricted by cognitive limitations. AI helps mitigate these constraints by analyzing large datasets, minimizing biases, and providing predictive insights that enhance managerial choices.
- 5. Socio-Technical Systems Theory:** This theory underlines the interconnectedness between technology and human participants within organizations. The effective implementation of AI necessitates not just technological preparedness but also alignment with organizational culture, employee competencies, and ethical considerations. In conclusion, the theoretical framework illustrates that AI in business management transcends being a mere technological upgrade; it serves as a transformative force that aligns with organizational theories regarding innovation, adaptation, and strategic planning.

Research Methodology

The approach for this research is structured to thoroughly examine the effects of Artificial Intelligence (AI) on business management by investigating its uses, advantages, and hurdles across various organizational settings. A mixed-methods strategy combining both qualitative and quantitative methods has been employed to ensure a well-rounded understanding.

Research Design

This investigation utilizes an exploratory and descriptive framework. The exploratory component assists in pinpointing new trends in AI adoption, while the descriptive element emphasizes the real-world applications and managerial repercussions of AI within business operations.

Data Collection

Primary Data: Structured surveys and semi-structured interviews were conducted to collect perspectives from business managers, personnel, and industry specialists regarding the implementation of AI in their companies.

Secondary Data: Literature including academic journals, industry reports, case studies, and Governmental documents was analyzed to grasp both theoretical and practical aspects of AI in business management.

Sampling Technique

A purposive sampling approach was leveraged to identify participants from sectors actively utilizing AI technologies, such as finance, retail, healthcare, and supply chain management. The participant group comprised managers, decision-makers, and staff who directly engage with AI systems.

Data Analysis

Quantitative Analysis: Data from surveys were examined using statistical software to uncover patterns, relationships, and the level of AI adoption.

Qualitative Analysis: Thematic analysis was utilized to interpret feedback from interviews, concentrating on managerial viewpoints, possibilities, and challenges associated with AI integration.

Scope and Limitations

The study's scope is confined to selected sectors and specific geographic areas, which may influence the generalizability of results. Furthermore, the rapid advancement of AI technologies may bring forth new trends that lie outside the focus of this research. The outlined methodology establishes a coherent structure for assessing how AI is transforming business management while also considering organizational, ethical, and strategic factors.

Findings

The study reveals several key insights concerning the impact of Artificial Intelligence (AI) on business management:

- 1. Improved Decision-Making:** Managers indicated that the use of AI tools, including predictive analytics and machine learning algorithms, greatly enhanced the quality of both strategic and operational choices by offering timely, data-driven insights.
- 2. Increased Operational Efficiency:** Organizations that adopted AI-driven automation in functions such as supply chain management, finance, and human resources saw a significant decrease in errors, expenses, and time investment.
- 3. Enhanced Customer Experience:** AI-powered solutions like chatbots, recommendation systems, and tailored marketing efforts improved customer interaction and satisfaction, fostering greater customer loyalty.
- 4. Transformation of the Workforce:** Although AI alleviated the workload of repetitive tasks, employees expressed apprehensions about job security. Nonetheless, many acknowledged new opportunities for skill development and positions within AI-enhanced areas.
- 5. Challenges of Ethics and Data Privacy:** A common theme identified through interviews and surveys was concern over ethical considerations, such as data misuse, algorithmic bias, and the need for transparency in AI-driven decision-making.
- 6. Sector-Specific Adoption Trends:** The findings indicated that sectors like finance, retail, and healthcare exhibited higher rates of AI implementation, while smaller companies faced slower adoption due to budget constraints and a lack of expertise. In summary, the research concludes that AI serves not merely as a technological asset but acts as a transformative element redefining managerial roles, organizational strategies, and business competitiveness. However, the complete potential of AI can only be unlocked when organizations tackle ethical, social, and workforce-related issues.

CONCLUSION

This research aimed to investigate the influence of Artificial Intelligence (AI) on business management, examining its uses, benefits, challenges, and implications for the future of organizations. The results reveal that AI represents more than just a technological enhancement; it is a transformative element that is reshaping how businesses operate, compete, and maintain themselves in the digital era. This conclusion brings together the key findings and offers a critical reflection on the wider significance of AI in business management.

One of the key contributions of AI to business management is its capacity to improve decision-making. Traditional management decisions often depend on experience, intuition, and limited datasets, which can limit accuracy and efficiency in results. In contrast, AI utilizes big data, machine learning, and predictive analytics to provide real-time insights that allow managers to make well-informed decisions. Whether predicting demand,

optimizing pricing models, or studying customer behavior, AI offers decision-makers tools to minimize uncertainty and enhance business results. This data-driven approach is particularly vital in the current unstable markets, where adaptability and precision frequently dictate success.

The area of customer relationship management has also been transformed by AI. Technologies such as chatbots, voice assistants, and recommendation systems have greatly improved customer interaction by providing personalized, immediate, and consistent service. Companies now have the capability to anticipate customer requirements, customize offerings, and strengthen relationships through AI-generated insights. This has led to enhanced customer satisfaction, loyalty, and retention elements that are vital in a competitive business landscape. Therefore, AI is reshaping not only internal operations but also the external customer experience, resulting in a comprehensive shift in business management..

From a theoretical perspective, the research backs various established models, including the Technology Acceptance Model (TAM), the Resource-Based View (RBV), and the Dynamic Capabilities Theory. The results demonstrate that the adoption of AI is influenced by perceived usefulness, the readiness of the organization, and the capacity to adjust flexibly to evolving circumstances. Additionally, decision-making theories such as bounded rationality are supported by the ability of AI to surpass human cognitive limits, while socio-technical systems theory emphasizes that for technology to thrive, it must be aligned with human factors and organizational culture.

In summary, the integration of AI in business management offers both advantages and difficulties. It equips companies with the tools to streamline operations, improve decision-making processes, and elevate customer interactions. However, it also requires thoughtful consideration of ethical, social, and workforce-related challenges. The real transformation is not merely in the technology, but in how organizations decide to incorporate, oversee, and personalize AI within their strategies and operations.

REFERENCES

1. Barney, J. (1991) Firm resources and sustained competitive advantage, *Journal of Management*, 17(1), 99–120, <https://doi.org/10.1177/014920639101700108>.
2. Davis, F. D. (1989) Perceived usefulness, perceived ease of use, and user acceptance of information technology, *MIS Quarterly*, 13(3), 319–340, <https://doi.org/10.2307/249008>.
3. Davenport, T. H. & Ronanki, R. (2018) Artificial intelligence for the real world, *Harvard Business Review*, 96(1), 108–116.
4. McKinsey & Company. (2021) The state of AI in 2021. McKinsey Global Institute, <https://www.mckinsey.com>, Accessed on 24/07/25.
5. Simon, H. A. (1972) Theories of bounded rationality. In C. B. McGuire & R. Radner (Eds.), *Decision and organization*, p. 161–176, North-Holland, North poland publishing co., Amsterdam, Netherland.
6. Teece, D. J.; Pisano, G. & Shuen, A. (1997) Dynamic capabilities and strategic management, *Strategic Management Journal*, 18(7), 509–533, [https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7), <https://doi.org/10.1002/%28SICI%291097-0266%28199708%2918:7%2C509::AID-SMJ882%3E3.0.CO;2-Z>.
7. Wamba, S. F.; Akter, S.; Trinchera, L. & De Bourmont, M. (2019) Transforming information quality into business value through business analytics and big data capability: A theoretical model and empirical validation, *Journal of Business Research*, 100, 313–330, <https://doi.org/10.1016/j.jbusres.2019.01.063>.
8. World Economic Forum (2020) Shaping the future of technology governance: Artificial Intelligence and Machine Learning. Geneva: WEF, <https://www.weforum.org>, Accessed on 24/07/25.
