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The Impact of Business Culture on the Artificial Intelligence (AI) Role in Formulation of Business Strategies

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Abstract

This study was conducted with the aim of investigating the impact of business culture on the role of artificial intelligence in developing business strategies. The research method is applicable in terms of its purpose, quantitative in terms of its implementation method, and descriptive-correlational in terms of its nature and method. The statistical population of the study included all managers and employees of Shasta Company, which was 315 employees and managers by simple random sampling method. A standard questionnaire based on a 5-point Likert scale was used to collect research data. The content validity of the tool was confirmed by specialists and experts, and Cronbach's alpha and composite reliability were used to measure the reliability of the tool. By distributing the questionnaire, the validity of the tool was measured with three methods: construct validity (external model), convergent validity (AVE), and divergent validity. The AVE value for all variables should be greater than 0.5. SPSS and PLS software were used to analyze the data. Research findings show that business culture has an impact on AI. AI has an impact on business organizational model. AI has an impact on strategic marketing decision management. AI has an impact on strategic decision management.

Keywords:

Artificial Intelligence, Business Culture, Strategy Development, Decision Management, Business Organizational Model

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Extended Abstract

Introduction

In the digital age, the business world requires shorter response times and greater attention to competitive landscapes that can change faster than ever. In this context, many companies are embracing new technologies with the aim of achieving high performance and competitive advantage (Mao, 2025). Among these technologies, AI has occupied a prominent position and has attracted the attention of the literature and business organizations. According to Davenport (2018), AI may be the technological force with the greatest potential for disruption in today's evidence. Similarly, for Brynjolfsson & McAfee (2017), AI is the most important general-purpose technology of our time, especially with regard to machine learning techniques.

However, in the past decade, the huge amount of data in various formats, which is being generated faster than ever before, has required the development of new technologies, led to an acceleration of technological progress, which includes the increase in computational processing capacity and the development of new AI techniques (Amin et al., 2025). With these advances, companies such as Netflix, Google, Airbnb, Amazon and Uber can process large amounts of data with AI and use the results to expand their reach with new products, markets and services (Ajalli et al., 2023). Given the competitive business scenario with high data volume, scarce resources and the need for speedy decision-making, many organizations are motivated to adopt AI technologies (Dhaigude et al., 2025).

Various leaders, aware that this process requires a review of business strategy, are also reformulating their strategic plans to include AI technologies (Yu et al., 2025). However, the literature shows that more research is necessary to understand the impacts of AI in planning and executing business strategies (Hajipour et al., 2023), as there is still little theoretical and empirical evidence on how to do it. However, there is a consensus on the need to create business value using AI technologies (Singh et al., 2025).

Artificial intelligence plays a disruptive and destructive role in the balance of marketing and businesses world. Artificial intelligence can rebuild the foundation of businesses and, in this way, create new and rapid revenue streams and bring sustainable competitive advantage. If, according to the classical theorists of this field, we consider strategic management as the brains of the organization and the wisdom of business leaders in saving and guiding the organization throughout its life cycle, and on the other hand, we take a look at the intensity of the entry of artificial intelligence into various sciences, the need to pay attention to artificial intelligence and its advances in strategic management will become more and more obvious to us. Although the foundation of management is almost fixed; but looking at business through the lens of artificial intelligence requires fundamental revisions in the leadership method and the use of organizational management tools. Accordingly, the question arises: what effect does business culture have on the role of artificial intelligence in formulating business strategies?

Theoretical Literature

The Role of Artificial Intelligence, Strategy Development, and Business Performance

With its ability to process and analyze large amounts of data and simulate scenarios, Artificial Intelligence provides organizations with tools that make the strategy development process more accurate, faster, and based on real data. This capability of AI enables organizations to better evaluate decision-making options and design their strategies with more confidence. In turn, optimal and data-driven strategies enhance organizational performance because they

improve resource allocation, decision-making, and action execution, and as a result, the organization will be able to achieve its goals more effectively (Bagheri et al., 2023).

On the other hand, AI also directly impacts organizational performance; this technology improves the organization's ability to achieve goals and increase efficiency by reducing human errors, increasing productivity, and creating more value for customers and stakeholders (Dowlatabadi et al., 2025; Guler et al., 2024). Another important point is the role of organizational culture and business model, which act as reinforcing factors. Organizations that foster a culture of learning, innovation, and knowledge sharing can implement AI more effectively and, through it, increase the impact of AI on organizational strategy formulation and performance (Jorzik et al., 2024).

Mao (2025) reviewed the “Supply Chain Optimization Strategy and Application Method of Business Management Based on Artificial Intelligence Technology”. First, the advantages of AI-based solutions in supply chain management, especially in demand forecasting, inventory management and warehouse process automation, were investigated; and a supply chain optimization model based on genetic algorithm was built. Experimental results show that AI technology and genetic algorithm can significantly reduce supply chain costs, improve logistics efficiency and increase service levels, and confirm the effectiveness of the model in practical applications. Labin (2024) reviewed “Artificial Intelligence in Marketing: A Review of Current and Future Trends”, using a systematic literature review method. The findings of the bibliographic analysis revealed six emerging clusters of AI in marketing research, namely psychosocial dynamics, AI-enhanced dynamic market strategies, AI for consumer services, AI for decision-making, AI for value conversion, and AI for ethical marketing.

Research Methodology

This research is applicable in terms of purpose, and descriptive-correlational in terms of method. The statistical population of the research includes 420 managers and employees of Shasta Company, of whom 315 were selected as stratified random samples using the Cochran formula. A researcher-made questionnaire on a five-point Likert scale was used to collect data. The findings from the Cronbach's alpha test and composite reliability to measure the reliability of the research instrument are reported in Table 1. To examine the validity of the instrument, content validity (expert opinion survey) was used and its validity was confirmed. Then, by distributing the questionnaire, the validity of the instrument was measured with three methods: construct validity (external model), convergent validity (AVE), and divergent validity. The AVE value for all research variables should be greater than 0.5. In order to test the research hypotheses, structural equation modeling was used in the context of smart pls2 statistical software.

Research findings

The research findings show that business culture plays a key role in the acceptance and effectiveness of artificial intelligence, and organizations that promote a culture of learning, innovation, and knowledge sharing can use artificial intelligence capabilities more effectively. Also, artificial intelligence has a direct impact on the organizational model and strategic decision-making processes and provides the ability to convert big data into practical knowledge and effective decisions. In the field of marketing, artificial intelligence improves strategic decision-making and the design of targeted campaigns. Furthermore, the combination of organizational culture, business model, and AI creates an interactive cycle that enhances organizational performance and provides sustainable competitive advantage.

Discussion and Conclusion

One of the most important results of this study is that business culture has a direct impact on the effective use of AI. Organizations that promote a culture of continuous learning, innovation, cross-functional collaboration, and knowledge sharing can use AI capabilities more optimally. These findings are in line with studies by Davenport (2018) and Farah et al. (2023), who emphasize that cultural harmony and interaction between organizational units strengthen AI capabilities and shape its real value in the organization. This shows that the success of AI deployment is not limited to technological tools alone, but also depends greatly on the organizational environment and prevailing culture.

Another finding shows that AI has a direct and significant impact on the organizational model and strategic decision-making processes. Organizations that integrate AI into their structure and processes are able to transform complex and big data into actionable knowledge and effective decisions. This increases the accuracy and speed of strategic decision-making and allows the organization to allocate its resources more effectively. These results are consistent with research by Karamipour (2023) and Dowlatabadi et al. (2025), which show that implementing AI can become a core competency of the organization and significantly improve organizational performance.

Artificial intelligence also plays an important role in marketing decision-making and strategic market management. Using AI tools, organizations are able to analyze customer behavior, market trends, and competitive patterns and design their marketing strategies based on real and dynamic data. This capability allows them to respond quickly to environmental changes and perform better in dynamic markets. The findings of this study are consistent with the studies of Labin (2024) and Peltier et al. (2024), which show that AI optimizes marketing processes and helps create shared value in customer-organization interactions. The role of organizational culture and business model is as an enabling factor. Organizations that have an innovative culture and value knowledge sharing, learning, and collaboration can enhance the impact of AI on strategy formulation and performance. In other words, the success of AI-based strategies depends not only on the technology itself, but also requires organizational cultural and structural alignment. These findings are consistent with studies by Schein (2017) and Teece (2018) and show that alignment between technology, culture, and business model is essential for creating sustainable competitive advantage.