

# DIGITAL TURBULENCE AND THE NEW LOGIC OF BUSINESS: HOW ARTIFICIAL INTELLIGENCE IS TRANSFORMING MANAGEMENT AND MARKETING

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## INTRODUCTION

**Introduction (Including the problem of the research).** In modern conditions of digital turbulence, characterized by the high speed of technological changes, the unpredictability of market processes, and the growth in data volumes, traditional approaches to management and marketing are losing effectiveness. Artificial Intelligence (AI) is becoming not only an automation tool but also a key factor in strategic business transformations. It forms a new logic of management, based on analytical thinking, forecasting consumer behavior, adaptability, and personalization of solutions. However, the integration of AI into management and marketing is accompanied by a number of challenges - from ethical and legal to organizational and cultural. The main scientific problem lies in determining how artificial intelligence changes management paradigms, decision-making models, and companies' competitive strategies in the age of digital turbulence. This necessitates the need to rethink the concepts of management and marketing, focusing on intelligent systems that ensure a new quality of business thinking.

**The aim of research.** The goal of the study is to determine the impact of artificial intelligence on the transformation of management logic and marketing strategies of enterprises in the context of digital turbulence. The research is aimed at identifying new principles, models, and mechanisms of management and marketing that are being formed under the influence of intelligent technologies, as well as substantiating the conceptual foundations for the transition of businesses to adaptive, data-driven, and customer-centric management systems.

**Objectives.** The objectives of the study are to analyze digital turbulence as the environment of modern business, determine the influence of artificial intelligence on management and marketing, identify changes in decision-making and customer interaction, substantiate a new logic of business thinking based on the integration of data and algorithms, and develop guidelines for adapting management to the conditions of the intellectual economy.

**The methods of the research.** The study employs systemic and interdisciplinary approaches, methods of comparative and content analysis, induction and deduction, as well as elements of expert evaluation to generalize theoretical provisions and determine the trends in the impact of artificial intelligence on the transformation of management and marketing.

## Theoretical background.

The theoretical foundations of the study on digital turbulence and the transformative role of Artificial Intelligence (AI) in management and marketing are based on contemporary concepts of the digital economy, intelligent management, and consumer behavioral models in a data environment. Digital turbulence is viewed as a multifaceted environment characterized by the high speed of technological change, innovative uncertainty, volatility of consumer preferences, and geopolitical challenges, particularly the consequences of Russian aggression, which intensify economic instability, disrupt supply chains, and increase security risks for businesses. Under such conditions, traditional management approaches, based on linearity and stability, lose effectiveness, giving way to adaptive, flexible, and algorithmically supported management systems, where AI acts as the "nervous system of business" and a catalyst for organizations' dynamic capabilities.

Artificial Intelligence forms intellectual decision-making contours and opens up opportunities for the automation of analytical, communication, and strategic processes, ensuring organizations' predictability, adaptability, and self-learning in the complex conditions of digital turbulence. Theoretical models of modern management, including the concepts of dynamic capabilities, data-driven decision-making, and agile management, demonstrate how the integration of AI enhances organizations' ability to forecast changes, adapt to them, and increase the effectiveness of management decisions. In this context, AI serves as a key mechanism for interaction between data, analytical algorithms, and human intellect, creating a synergy that allows organizations to respond more effectively to the challenges of the modern business environment.

In the field of marketing, the theoretical basis is formed by the concepts of cognitive marketing, neuromarketing, and personalized communications, which demonstrate the transformation of consumer interaction: from hyper-segmentation to personalized experience (1:1 Marketing), and from traditional targeting to emotional targeting, which enhances customer loyalty and forms a more effective customer experience. The application of Big Data analytics, predictive modeling, and contextual personalization allows companies not only to forecast consumer behavior but also to create high-quality, personalized communications that optimize interaction and increase competitive advantages.

Thus, the theoretical basis of the study reflects the convergence of knowledge from management, marketing, information technologies, and cognitive sciences, emphasizing the interdisciplinary and ethical dimension of AI application. Digital turbulence acts not only as a threat to business stability but also as a catalyst for the formation of an intellectual economy, where company effectiveness is determined by the ability to rapidly process data, self-organize, and create value through the synergy of human and machine intelligence. Under the influence of AI, companies gain the opportunity not only to adapt to rapid changes in the external environment but also to actively shape new management and marketing strategies, ensuring sustainability, innovation, and long-term competitiveness.

## Main findings.

The study indicates that digital turbulence radically transforms the operating conditions of modern business, forming an environment characterized by high uncertainty, rapid technological changes, volatility of consumer preferences, and the intensification of geopolitical challenges, including the consequences of Russian aggression. These circumstances not only increase risks for business models but also demand that companies achieve not just adaptation, but the formation of resilience, the review and optimization of value chains, and the development of management strategies capable of ensuring the continuity of business processes in an unstable environment. In this context, traditional management models, which rely on predictability and linearity of processes, prove to be insufficiently effective, which objectively necessitates the transition to adaptive, flexible, and algorithmically supported management systems capable of promptly responding to changes in the external environment, integrating Big Data, and ensuring decision-making support based on Artificial Intelligence. Such a transition is a key element of the new business logic, where AI technologies become the organization's "nervous system" and a catalyst for its dynamic capabilities, allowing companies not only to survive in conditions of digital turbulence but also to create competitive advantages and innovative value.

Artificial Intelligence acts as a key factor in business transformation, forming intellectual decision-making contours and serving as the organization's "nervous system," which catalyzes its dynamic capabilities and ability to adapt quickly to changes in the external environment. The integration of AI into management allows for an increase in the effectiveness of management processes, specifically: 1) the accuracy of predictive analytics, 2) the speed of decision-making in real-time (real-time decisions), and 3) the capacity for organizational self-learning, which ensures companies' strategic sustainability and competitive advantages.

Theoretical models of modern management, such as dynamic capabilities, data-driven decision-making, and agile management, demonstrate the fundamental necessity of synergy between management tools and algorithmic analytics to enhance organizations' strategic effectiveness in the digital environment. The interaction of human intellect and algorithmic analytics makes it possible to form adaptive strategies, forecast changes in the external environment, and implement management decisions with a high level of accuracy and speed, which is critically important under conditions of digital turbulence and geopolitical instability.

In the field of marketing, the transformation of consumer interaction is based on the principles of cognitive marketing, neuromarketing, and personalized communications, which ensure the integration of analytics, psychological behavioral models, and algorithmic solutions. The application of Artificial Intelligence allows companies to implement personalization, hyper-segmentation, emotional targeting, and customer behavior forecasting with a high level of accuracy, which opens up opportunities for the formation of a more effective and individualized customer experience. Consequently, organizations can increase loyalty, adapt marketing communications to the needs of a specific consumer, and substantially restructure marketing strategies, transforming them into customer-centric systems capable of flexibly responding to changes in the market and competitive environment.

Thus, digital turbulence initiates the formation of a new business logic, where the key effectiveness of companies is determined by their ability to quickly process and integrate algorithmic analytics with human intellect to create unique value and competitive advantages. This approach ensures the synergy of knowledge from management, marketing, information technologies, and cognitive sciences, which contributes to the development of the intellectual economy and outlines the vectors for enterprises' strategic development in the global context, ensuring their capacity to adapt to rapid technological changes, geopolitical uncertainty, and increasing competition.

## MAIN RESULTS AND CONCLUSIONS

Digital turbulence creates an environment of high uncertainty, rapid technological changes, and geopolitical risks, particularly due to Russian aggression, which demands resilience and adaptive management systems from companies. Artificial Intelligence acts as the "nervous system" of the organization, enhancing the accuracy of analytics, the speed of decisions, and the capacity for organizational self-learning. In marketing, AI ensures personalization, hyper-segmentation, and the forecasting of consumer behavior, forming customer-centric strategies. Thus, digital turbulence and AI form a new business logic, where company effectiveness is determined by the ability to integrate algorithmic analytics with human intellect to create unique value and competitive advantages.

## References

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