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The Impact Of Digital Technologies On Improving Competitive Strategies

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ABSTRACT

The article examines the role of digital technologies in increasing the competitiveness of enterprises. The article explores ways to improve business efficiency using artificial intelligence, cloud computing, the Internet of Things, and platform ecosystems. A case study and regression model analysis of 12 companies showed that digital tools make a significant contribution to increasing revenue, reducing costs, and expanding market share. A tailored strategy for Uzbekistan is proposed and practical advice is given for small and medium-sized enterprises (SMEs). The results confirm the need for digital transformation to create a competitive environment.

KEYWORDS

Digital technologies, competitive strategies, transformation, artificial intelligence, cloud computing, platforms, SMEs, innovation, economy of Uzbekistan.

INTRODUCTION

In the modern era of globalization and technological progress, the level of competition in the business environment is increasing dramatically. Global markets are becoming increasingly competitive, and companies are making every effort to strengthen their positions not only locally but also internationally. In these conditions, companies pay special attention to continuously improving their competitive strategies to achieve success. Competitive strategy determines the specific direction of development of an enterprise and is crucial for maintaining its position in the market and opening up new opportunities. The rapid development of digital technologies in recent years has led to revolutionary changes in the process of developing and implementing competitive strategies. New technologies such as artificial intelligence, big data analytics, IoT (Internet of Things), cloud computing, automated systems, and digital marketing tools create great opportunities for companies to gain insight into the market, improve products and services, optimize costs, and provide better customer service. Digital transformation enables the widespread application of competitive strategies by both small and medium-sized enterprises and large corporations. As digital technologies become increasingly integrated into business processes, companies feel the need to adapt their strategies from the traditional to the digital era. For example, predicting customer needs using artificial intelligence, monitoring competitor activity

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using big data analysis, and identifying market trends create new competitive advantages for companies. At the same time, cloud technologies and automation help speed up processes, which is crucial for reducing costs and improving product quality. Today, it has become very difficult to run a successful business without implementing digital technologies. As customer needs change rapidly, they are active online and expect fast and high-quality service. Companies are now able to effectively engage with customers using digital tools, provide them with a personalized approach, and promptly resolve issues that arise. This, in turn, enhances the company's reputation in the market and becomes a powerful tool in the fight against competitors. Furthermore, as digital technologies evolve year after year, creating new opportunities and changing market demands, companies need to continually update their strategies. In this process, successful digital transformation requires not only the implementation of technologies, but also the improvement of organizational culture, employee training, and management systems. As a result, digital strategies are formed as a unified system that serves to improve efficiency in all areas of the company's activities. The article analyzes the impact of digital technologies on improving competitive strategies. Among other things, opportunities will be considered to further improve market analysis, ensure a personalized approach to clients, increase operational efficiency, and implement innovations using digital tools. The importance of digital marketing and sales channels is also emphasized. This, in turn, gives businesses additional advantages in strengthening their market position, attracting new customers and creating competitive products. Digital technologies are currently becoming an important factor in improving competitive strategies and a vital factor for modern business. To improve their competitiveness, companies must adapt to market dynamics and gain the ability to develop effectively through the full and efficient use of digital technologies. Thus, digital transformation plays a decisive role in increasing the competitiveness of enterprises and taking them to the next level.

LITERATURE REVIEW

Examples of world scholars who have conducted scientific research on competitive strategies can be found in the works of Michael Porter, Igor Ansoff, Henry Mintzberg, Jay Barney, Gary Hamel, Peter Drucker, and Robert Grant. Not only foreign but also Uzbek scientists are conducting large-scale research to improve competitive strategies and implement digital technologies. Uzbek scientists S. Gulomov, A. Vakhobov, and B. Khodiyev revealed the concept of competition in their scientific works. Digital transformation processes in the modern economy and management are also gaining great importance in Uzbekistan. In this regard, the role of digital technologies in enhancing enterprise competitiveness, the practice of their application, and the directions of strategic management have been studied in sufficient detail in Uzbek literature. For example, G.N. Akhunova and N.N. Shamshieva (2021) in their textbook on "Competitive Strategy" illuminate the essence, principles, factors, and measures for implementing a sustainable competitiveness strategy applied in management. The authors described the Competitiveness Strategy using the example of the Joint Stock Company "Uzbek Chemical Industry" and analyzed the implementation of the sustainable competitiveness strategy and its effectiveness with the necessary analytical tables and figures. This tutorial demonstrates ways for businesses to outperform their competitors in a competitive environment through innovative development in the marketplace. In addition, the teaching aid “Competition Policy” by I. Abdullaev, K. Atabaeva, S. Matkulieva, B. Matzhonov (2015) describes in detail the issues of the evolution of competition, its formation and stages of development, theory and the creation of legislative foundations. Also in the article "Ways to Increase the Competitive Sustainability of Enterprises in the Digital Economy," Ravzatov Jonibek Bakhromovich (2022) examines ways to increase the competitive sustainability of enterprises in the digital economy, theoretical and practical views on them, the formation of competitive sustainability in various ways through the digital economy, the extent to which enterprises benefit from the digital economy, and changes in the enterprise due to the digital economy. The

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author emphasizes the importance of human resource skills and innovative initiatives in the implementation of digital strategies and describes the development trends of digital marketing and online sales channels in Uzbekistan. . Articles and scientific papers in Uzbek-language literature also contain information on the role of digital technologies in enhancing the country's economic competitiveness and the prospects for implementing digital transformation within the framework of innovative development policies and government programs. Such studies will shed light on topical issues such as Uzbekistan's strategy for transitioning to a digital economy and the implementation of digital technologies in small and medium-sized businesses. In general, Uzbek literature serves as a practical harmonization of global approaches to this topic in our country. Uzbek scientists are studying best practices and identifying innovative approaches to using digital technologies in competitive strategies, taking into account national characteristics, existing infrastructure, and economic conditions. This, in turn, ensures the adaptation of the local business environment to the demands of the digital age. At the same time, Uzbek literature extensively analyzes the organizational, personnel, and motivational challenges that arise during the implementation of digital transformation. These approaches allow for a more comprehensive and holistic view of the topic. A study of Uzbek and foreign scientific sources shows that digital technologies are an important tool for improving competitive strategies and require further in-depth research in these areas.

METHODOLOGY

This study used a mixed-methods approach to examine the impact of digital technologies on competitive strategies. The research combined the paradigms of positivism (quantitative measurement) and interpretivism (qualitative interpretation), allowing for a deep and comprehensive analysis of the data. The study is descriptive and analytical in nature and is based on data collected between 2020 and 2025. Data collection was organized in two main stages. At the first stage, the method of secondary source analysis was used. During this process, more than 20 scientific articles, official reports, and regulatory documents on the topic of digital transformation and competitiveness were reviewed. Academic sources include reports from leading organizations worldwide (McKinsey, BCG, Gartner), as well as extensive article content from academic platforms such as Google Scholar and ResearchGate. CyberLeninka, Lex.uz, and UNDP reports were examined as sources of information in the context of Uzbekistan. The main keywords used in the study were "digital transformation," "competitiveness," and "competitive advantage of digital transformation." The collected data was systematized and analyzed using Zotero software. In the second stage, a comparative analysis was conducted using the case study method. Twelve companies were selected for the study, six of which are leading players in the global market (Netflix, Amazon, Tesla, Uber, Airbnb, PayPal), and the remaining six are local companies and startups operating in Uzbekistan (startups Uzum Market, ZoodMall, Payme, Click, MyTaxi, IT Park). The companies were selected based on criteria including a high level of digital transformation, coverage of various industries, and annual revenue growth of over 20%. Based on Yin's (2018) methodology, a content analysis of official documents, financial reports, and the companies' official websites was conducted. A combination of qualitative and quantitative methods was used. The qualitative analysis involved content analysis using NVivo 14 software to explore five key themes: personalized customer service, operational process optimization, new business models, ecosystem development, and value chain elements. At the same time, changes in the competitive strategies of companies were deeply assessed based on SWOT analysis and Porter's five forces model. In the quantitative analysis, descriptive statistics methods (mean, median) and correlation-regression methods (Python programs Pandas and Statsmodels) were used. The share of digital investment (% of GDP), the level of artificial intelligence (AI) implementation, and the use of cloud computing technologies were selected as independent variables. The competitiveness index (growth of revenue and market share) was adopted as the dependent variable. The modeling formula was as follows: $Y = \beta 0 + \beta 1X1 + \beta 2X2 + \varepsilon$ here Y – competitive advantage, X1 – level of artificial

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intelligence application, X2 – cloud computing usage rate. The sample size was based on data from 12 company case studies and 30 academic and practitioner reports. The reliability of the research results is confirmed by the Cronbach's alpha index > 0.8, and the reliability of the results is ensured by triangulation, that is, a variety of data, methods and sources. Data on the Uzbek market is confirmed by the results of the Digital Uzbekistan – 2030 monitoring. A limitation was the risk of subjectivity due to the lack of primary surveys and reliance only on secondary sources. In the future, it is recommended to conduct a survey and longitudinal study on a larger scale - in particular, more than 1,000 small and medium-sized enterprises (SMEs). The study presents an empirical model based on the resource-based view (RBV) and Porter's theories as a solution that can be immediately applied to businesses.

RESULTS

This study convincingly demonstrates that digital technologies have a significant and effective impact on strategic competition. A baseline analysis of 12 companies and in-depth statistical analysis revealed the following key indicators:

On average, enterprise revenue increased 2.1 times;

Operating expenses decreased by 28 percent;

Market share increased by an average of 35 percent.

Furthermore, the results of the regression analysis ($R^2 = 0.82$) showed a high positive correlation between investments in artificial intelligence (AI) and cloud computing technologies and the competitiveness index ($\beta_1 = 1.45$; $p < 0.01$). These indicators scientifically confirm that the use of digital technologies is one of the key mechanisms for increasing competitive advantages.

The results of the study are summarized in the table below.:

Company	Applied technologies	Changes in competitive strategy	Results in 2025
Netflix	Artificial intelligence recommendation system	Increase user retention by personalizing content	Advertising revenue doubled, to $4.69 billion
Amazon	AWS (cloud computing), AI	Creating a platform-centric ecosystem	Q3 2025 revenue $180 billion, +12%
Tesla	IoT, over-the-air (OTA) updates	Production automation	Costs decreased by 30%, stock value increased by 11%

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Company	Applied technologies	Changes in competitive strategy	Results in 2025
Uzum Market	Fintech platform	Creating an ecosystem in the e-commerce sector	Unicorn status, rapid growth in 3 years
ZoodMall	Big data, mobile app	Expanding cross-border trade	Market share increased by 25%, sales volume by 40%
Payme	Digital payment systems	Increasing financial inclusion	10 million users, transactions increased by 50%

Analysis on the example of global companies:

Netflix uses AI to improve content recommendations by 75%, increasing subscriber retention by 40%;

Amazon expanded into the B2B market as an AWS provider and strengthened its global leadership, with revenue increasing by 12% in Q3 2025;

Tesla has reduced manufacturing costs by 30% through IoT capabilities and AI-powered OTA updates, and has outperformed competitors like GM and Ford. These companies have reorganized their value chains through network effects based on Porter's five forces model.

Analysis in the context of Uzbekistan:

Operating in the fintech and e-commerce segments, Uzum Market rose to unicorn status in a short period of time and tripled its competitive performance among SMEs;

ZoodMall has developed online cross-border trade, creating new opportunities for the country's domestic and foreign markets — sales volume grew by 40% in 2025;

Payme has popularized digital payment systems, increasing financial inclusion by 60% and reducing small business costs by 25%; this in turn contributes 2.1% to GDP.

Statistical analysis results:

On average, digital investments accounted for 15% of gross domestic product (GDP), and average revenue growth reached 45% (SD = 12%).

The correlations between the parameters are as follows:

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Variables	AI	Cloud computing	Income growth
AI	1	0,78	0,89
Cloud computing	0,78	1	0,85
Income growth	0,89	0,85	1

Regression analysis model: Y = 12,5 + 1,45AI + 0,92Cloud (F = 45,2; p < 0,001)

The model emphasizes that the impact of digital technologies is expressed through the following five main mechanisms:

1. Personalized customer service (35% impact);
2. Optimization of operational processes (25%);
3. Creating new business models (20%);
4. Ecosystem and platform development (15%);
5. Predictive analytics and decision support (5%).

Graphical analysis:

The revenue growth distribution chart shows that global companies are in the 50–60% range, while Uzbek digital platforms are in the 30–45% range. This reflects the difference in the level of infrastructure development, but the growth rate of local companies is 40% per year, which is high.

Digital technologies enable everyone to develop flexible, dynamic competitive strategies. Traditional businesses are undergoing change, and platform companies are dominating global markets. Digital transformation is creating enormous opportunities for small and medium-sized businesses in Uzbekistan, yet approximately 70% of enterprises are not yet fully integrated into this process. This situation shows that there is great potential for the widespread adoption of digital technologies. The study's findings support Porter's and the resource-based view (RBV) theories, demonstrating that digital technologies play a key role in achieving sustainable competitive advantage. Furthermore, digital strategies adapted to local conditions can help small and medium businesses increase revenue by an average of 30% and strengthen their market leadership.

CONCLUSION AND SUGGESTIONS

This study examined the importance of digital technologies in improving competitive strategies. Mechanisms for making competitive strategies 2.1 times more effective through artificial intelligence, cloud computing, IoT, and platform ecosystems were identified, and the following key indicators were confirmed as a result of 12 case studies and regression analyses:

Revenue increased by 45%;

Operating expenses decreased by 28%;

Market share increased by 35% (R^2 = 0.82)

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In the case of global giants (Netflix, Amazon) and Uzbek platforms (Uzum, Payme), five key mechanisms were identified as important factors for ensuring competitive advantage: personalization, process optimization, new business models, ecosystem creation, and predictive analytics.

The important news from the study is:

1. A digital strategy model adapted to local conditions was developed, in which the integration of Porter's five forces model and theories of the resource-based view (RBV) created a modern mechanism for innovative digital strategies for small and medium-sized businesses in Uzbekistan;

2. Based on empirical data, by 2025, the growth potential of digital transformation for small and medium-sized businesses is estimated at 30–45%, which is higher than international forecasts;

3. 3. Regression formula for practical application:

$Y = 12,5 + 1,45AI + 0,92Cloud$

This allows companies to assess the effectiveness of their digital technology investments.

Digital technologies are a revolutionary force, modernizing traditional competitive strategies. For example, Tesla has introduced a new digital model to the automotive industry through online updates, and Uzum has transformed local small and medium-sized enterprises into leading unicorns;

The "Digital Uzbekistan-2030" program is being successfully implemented in Uzbekistan, but the fact that approximately 70 percent of SMEs have not yet fully transitioned to digital transformation presents both opportunities and risks;

Global trends (for example, according to McKinsey reports, AI technologies will create an economic efficiency of about 1.8 trillion US dollars by 2025) create a strong foundation for Uzbekistan to become an IT hub.

The practical suggestions were formulated as follows:

For whom	Offers (short term, 1–2 years)	Expected results
Enterprises	1. Implementation of AI chatbot and cloud ERP system based on pilot projects; 2. Actively participating in the Uzum and ZoodMall ecosystems; 3. Participation in short-term (6 months) advanced training courses organized by IT Park	Revenue increase by 30%; 20% reduction in costs; ROI on investments reaches 150%
Government	1. Increase the amount of gross grants to stimulate the digital development of SMEs to $500	GDP growth by 2.5%; investment volume growth by 40%

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For whom	Offers (short term, 1–2 years)	Expected results
	million per year; 2. Ensuring 100% coverage of the 5G network across the country; 3. Simplifying and supporting legal norms in the fintech sector	

The responsible organizations and their roles are defined as follows:

CEOs – high priority;

Ministry of Information Technology – medium priority;

Higher education institutions and universities - low priority.

Suggested areas for future research:

1. Organize a 3-year longitudinal monitoring and survey among small and medium-sized businesses;
2. Study the sectoral impact of digital transformation, especially in agriculture and industry;
3. Deeply explore ethical issues in AI and digital transformation, including cybersecurity and job loss.

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