

DEVELOPMENT OF ECONOMIC ACTIVITIES OF COMMUNICATION ENTERPRISES IN THE CONTEXT OF DIGITALIZATION

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Annotatsiya

This paper examines the relevance of developing the economic activities of telecommunications enterprises in the context of digitalization. Digital transformation affects all aspects of the economy and society, contributing to the transformation of business models, increasing production efficiency, and improving service quality. Particular attention is paid to the role of modern technologies such as 5G, cloud solutions, artificial intelligence, and the Internet of Things (IoT), as well as regulatory and cybersecurity issues. The study identifies key factors for the successful development of telecommunications enterprises and develops strategies for sustainable growth and competitiveness in the digital economy.

Аннотация

В данной работе рассматривается актуальность развития экономической деятельности предприятий связи в условиях цифровизации. Цифровая трансформация затрагивает все аспекты экономики и общества, способствуя трансформации бизнес-моделей, повышению эффективности производственных процессов и улучшению качества услуг. Особое внимание уделено роли современных технологий, таких как 5G, облачные решения, искусственный интеллект и Интернет вещей (IoT), а также вопросам нормативно-правового регулирования и кибербезопасности. Исследование позволяет выявить ключевые факторы успешного развития предприятий связи и разработать стратегии для устойчивого роста и повышения конкурентоспособности в условиях цифровой экономики.

Annotatsiya

Ushbu ishda raqamlashtirish sharoitida aloqa korxonalarining iqtisodiy faoliyatini rivojlantirishning dolzarbligi ko'rib chiqiladi. Raqamli transformatsiya iqtisodiyot va jamiyatning barcha jihatlariga ta'sir qiladi, biznes-modellarni o'zgartirishga, ishlab chiqarish samaradorligini oshirishga va xizmat ko'rsatish sifatini yaxshilashga yordam beradi. 5G, bulutli yechimlar, sun'iy intellekt va narsalar interneti (IoT) kabi zamonaviy texnologiyalarning roli, shuningdek, normativ-huquqiy tartibga solish va kiberxavfsizlik masalalariga alohida e'tibor qaratilgan. Tadqiqot aloqa korxonalarining muvaffaqiyatli rivojlanishi uchun asosiy omillarni aniqlash va raqamli iqtisodiyot sharoitida barqaror o'sish va raqobatbardoshlikni oshirish strategiyalarini ishlab chiqishga imkon beradi.

Ключевые слова: *Цифровизация, предприятия связи, экономическая деятельность, 5G, облачные решения, искусственный интеллект, Интернет вещей, кибербезопасность, нормативно-правовое регулирование, конкурентоспособность.*

The development of economic activities of telecommunications enterprises in the context of digitalization is an extremely relevant topic in modern conditions. Digitalization encompasses all aspects of the economy and society, leading to the transformation of business models, increased efficiency of production processes, and improved quality of services provided.

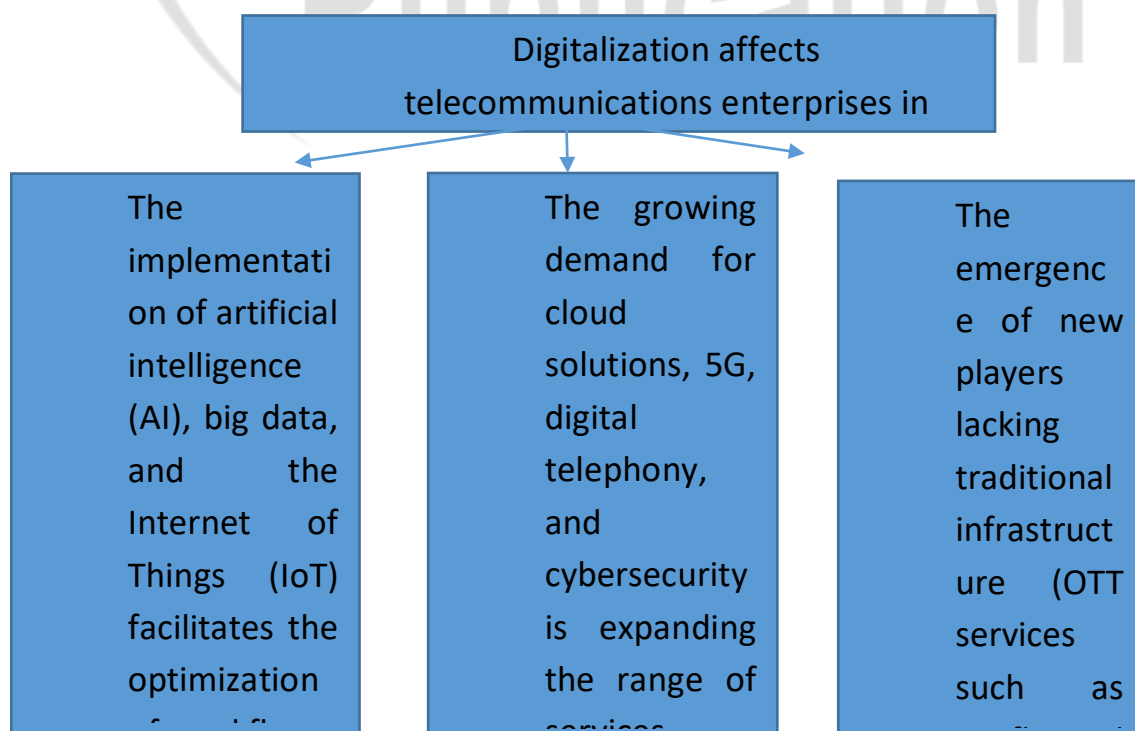
Telecommunications enterprises play a key role in creating data transmission infrastructure, making them critical to the functioning of the digital economy. The implementation of modern technologies such as 5G, cloud solutions, artificial intelligence, and the Internet of Things (IoT) enables telecommunications enterprises to enhance productivity, optimize costs, and offer new, innovative services.

The relevance of the topic is also due to the necessity to adapt to changing market demands and strengthen competitiveness in the global digital environment. Moreover, digitalization contributes to increased information accessibility, improved customer service quality, and accelerated managerial decision-making.

An important aspect is the regulatory and legal framework governing digital transformation, as well as issues of cybersecurity and personal data protection. Studying these aspects allows telecommunications enterprises not only to effectively integrate into the digital economy but also to minimize risks associated with cyber threats.

Thus, researching this topic helps identify key factors for the successful development of telecommunications enterprises in the context of digitalization and develop strategies for sustainable growth and increased competitiveness in the market.

Digitalization has affected all areas of the economy, including telecommunications enterprises, which play a key role in ensuring information exchange. The implementation of new technologies leads to the transformation of business models, changes in economic indicators, and an increase in companies' competitiveness.



pic.1 Aspects of digitalization.

Analysis of the Development of Telecommunications Enterprises in the Digital Era: The Case of the Republic of Uzbekistan

- **Growth of the Information and Communications Sector:** Between 2016 and 2020, the gross value added in the 'Information and Communications' sector increased from 4.4 to 8.8 trillion Uzbek soums, while the volume of services rendered in this field grew from 6.3 to 12.9 trillion soums.

- **Investments:** In 2023, 470 billion Russian rubles were invested in the development of communications infrastructure. Additionally, investments in fixed capital within the 'Information and Communications' sector in Uzbekistan quadrupled from 1.2 to 4.8 trillion soums.

- **Profitability:** The average profitability rate in the industry stood at 15%, surpassing that of traditional economic sectors.

- **Growth of Internet Services:** The share of revenues from digital services increased from 30% in 2018 to 52% in 2023.

Key Areas of Digitalization in Telecommunications Enterprises:

Development of 5G Networks: The implementation of fifth-generation networks enhances internet bandwidth and speed. Uzbekistan has already established 15 5G base stations.

Telecommunications Infrastructure Development: The length of fiber-optic communication lines in Uzbekistan increased by 3.8 times, from 17.9 to 68.6 thousand km.

Big Data and Analytics: Companies are utilizing user data to personalize services.

1. **Cybersecurity:** With the rise in digital threats, there is an increased demand for protective technologies.

2. **Internet of Things (IoT) and Cloud Technologies:** The use of smart devices and remote servers enhances operational efficiency.

Challenges and Issues of Digitalization:

- **High Capital Expenditure:** Implementing new technologies requires substantial investments.

- **Regulatory Constraints:** Government restrictions concerning data processing and antimonopoly regulations pose challenges.

- **Labor Shortage:** There is a scarcity of qualified specialists in digital technologies.

Prospects for Development:

It is anticipated that by 2030, telecommunications enterprises will continue their transformation. Key trends include:

- **Increase in Digital Services Revenue:** The share of digital services in company revenues is expected to reach 70%.

- **Implementation of Quantum Communications and New Security Protocols:** Advancements in communication technologies and security measures are underway.

- Development of 6G Networks: Networks capable of ultra-high data transmission speeds are in development.

- In Uzbekistan, the 'Digital Uzbekistan-2030' program has been launched, encompassing 280 digital transformation projects.

'Digital Uzbekistan-2030' Program:

This program aims to accelerate the development of the digital economy and the integration of modern information and communication technologies across all sectors of the country. The strategy includes:

Development of Digital Infrastructure: Plans are in place to increase internet connectivity in settlements from 78% to 95% by laying 20,000 km of fiber-optic lines and expanding the number of broadband access ports to 2.5 million.

Implementation of Information Systems and E-Services: Over 400 information systems and e-services are to be introduced across various socio-economic sectors.

Training and Development of Human Capital: The program aims to train 587,000 individuals in computer programming basics, including 500,000 youth under the 'One Million Programmers' project.

Digitalization of Industry: More than 280 information systems and software products will be implemented in real sector enterprises to automate management, production, and logistics processes.

Expected Outcomes by 2030:

Economic Growth: The digital economy's share in the GDP is projected to increase 2.5 times, with software production growing fivefold. Software exports are expected to reach \$500 million, ten times the current level.

Digitalization of the Financial Sector: The level of digitalization in financial and banking operations is anticipated to reach 70%.

Investments: Approximately \$2.5 billion is planned to be invested in digital infrastructure development.

Digital Development Assessment Methodology: A methodology for assessing digital development across regions will be established, accompanied by relevant rankings to monitor progress and the effectiveness of digital technology implementation.

In conclusion, digitalization is fundamentally transforming the economic activities of telecommunications enterprises. Companies that adapt to these new realities gain competitive advantages, enhance profitability, and broaden their service offerings. Timely investment in technological development is crucial, considering emerging challenges and risks. In Uzbekistan, the 'Digital Uzbekistan-2030' program lays the foundation for dynamic growth in the digital economy, fostering investments, the adoption of new technologies, and workforce development. By 2030, Uzbekistan is expected to emerge as a regional leader in digital transformation.