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THE ROLE OF DIGITALISATION IN TRANSFORMING UZBEKISTAN'S ECONOMY

Baxromova Indira Azizjon qizi
Alfraganus University, Faculty of Economics
2nd-year student, Economics major
baxromovaindira@gmail.com
Umarova Sevinch Rustam qizi
Alfraganus University, Faculty of Economics
2nd-year student, Economics major
Mirisaev Abdurakhman Abdulakhatovich
Professor, Department of Economics
Alfraganus University, Tashkent, Uzbekistan
mirisayevab@gmail.com
ORCID: 0009-0000-8735-6672

Abstract

Digitalisation has become one of the major drivers of economic transformation in the twenty-first century. The rapid development of digital technologies is changing the way businesses operate, governments provide public services, and consumers participate in economic activities. For developing countries, digitalisation creates opportunities to increase productivity, improve competitiveness, attract investment, and promote financial inclusion. Uzbekistan has increasingly focused on digital transformation as part of its broader economic modernization strategy. The expansion of digital payments, e-commerce, online public services, information technologies, and digital entrepreneurship is creating new opportunities for businesses and individuals. This article examines the role of digitalisation in transforming Uzbekistan's economy and analyses its major economic benefits and challenges. Particular attention is given to productivity,

digital entrepreneurship, financial inclusion, employment, public services, and human capital. The article argues that successful digital transformation requires not only technological infrastructure but also investment in digital skills, cybersecurity, innovation, and equal access to technology. Effective digitalisation can become an important foundation for Uzbekistan's long-term economic growth and competitiveness.

Keywords: digitalisation, Uzbekistan, economic development, digital economy, e-commerce, fintech, productivity, innovation, financial inclusion.

1. Introduction

The global economy is undergoing a significant transformation driven by digital technologies. The development of smartphones, cloud computing, artificial intelligence, digital payments, e-commerce, and online platforms has changed the way economic activities are organized.

Digitalisation refers to the increasing use of digital technologies in economic, social, and governmental activities. It allows businesses to automate processes, reduce transaction costs, reach new markets, and improve communication with customers. For governments, digital technologies can make public services faster, more transparent, and more accessible.

For developing countries, digitalisation is particularly important because it can help overcome traditional economic limitations. A business does not necessarily need a large physical network to reach customers; an online platform can provide access to national and international markets. Similarly, digital financial services can allow people who have limited access to traditional banks to participate more actively in the financial system.

Uzbekistan is increasingly integrating digital technologies into its economic development. The growth of online services, digital payments, e-commerce, IT-related businesses, and electronic government services demonstrates the growing importance of the digital economy.

The purpose of this article is to examine how digitalisation is transforming Uzbekistan's economy, identify its main benefits and challenges, and discuss the policies needed to ensure inclusive and sustainable digital development.

2. The Concept of the Digital Economy

The digital economy can be understood as an economic system in which digital technologies play a central role in production, distribution, consumption, and communication.

Traditional economic activities increasingly depend on digital infrastructure. Businesses use online platforms to sell products, banks provide mobile applications, and governments offer electronic services.

Digitalisation can affect almost every sector of an economy, including:

- banking and finance;
- trade and e-commerce;
- manufacturing;
- agriculture;
- education;
- healthcare;
- transportation;
- tourism;
- public administration.

Therefore, digitalisation should not be considered only a technological issue. It is also an important economic development process.

3. Digitalisation and Economic Growth

One of the most important advantages of digitalisation is its potential to increase productivity.

Digital technologies allow businesses to automate repetitive activities, process information faster, and make more accurate decisions. For example, companies can use digital accounting systems to manage financial information, customer

relationship systems to understand consumer behaviour, and analytical tools to forecast demand.

Higher productivity can reduce production costs and increase competitiveness. In the long term, this can contribute to economic growth.

Digitalisation can also encourage innovation. New technologies allow entrepreneurs to create products and services that were previously impossible or too expensive to provide.

For Uzbekistan, the development of a strong digital economy could support the diversification of economic activity and reduce excessive dependence on traditional sectors.

4. The Development of Digital Entrepreneurship

Digitalisation has significantly reduced some barriers to entrepreneurship.

In the traditional economy, starting a business often requires significant investment in physical infrastructure, offices, shops, and distribution networks. Digital platforms can reduce some of these costs.

For example, entrepreneurs can promote products through social media, sell goods through online platforms, communicate with customers digitally, and accept electronic payments.

This creates opportunities for young people and small businesses.

Digital entrepreneurship can be particularly important for Uzbekistan because the country has a large young population. Young people with knowledge of technology, business, economics, and foreign languages can participate in global digital markets.

Freelancing, software development, digital marketing, online education, design, and other technology-related services can create additional sources of income and employment.

5. Digital Payments and Financial Inclusion

The expansion of digital financial services is another important aspect of economic digitalisation.

Mobile banking, electronic payments, and fintech applications make financial transactions faster and more convenient. Consumers can transfer money, pay bills, purchase goods, and access financial services without visiting a traditional bank branch.

Digital payments can also contribute to financial inclusion by making financial services more accessible.

For businesses, electronic payments can simplify transactions and improve financial record-keeping. For the government, greater use of digital financial systems can contribute to more efficient tax administration and economic monitoring.

However, the expansion of digital finance must be accompanied by strong cybersecurity and consumer protection.

6. E-Commerce and Market Expansion

E-commerce is changing the relationship between businesses and consumers.

A small company in Uzbekistan can potentially reach customers beyond its local area through online platforms. This creates opportunities for small and medium-sized enterprises to expand their markets.

E-commerce can also increase competition because consumers can compare prices, quality, and services more easily.

For Uzbekistan, the development of e-commerce can support entrepreneurship and create new jobs in areas such as logistics, digital marketing, software development, customer service, and online retail.

However, continued investment in logistics, digital infrastructure, secure online payments, and consumer protection is necessary for e-commerce to develop effectively.

7. Digitalisation and Employment

Digitalisation has a complex relationship with employment.

On the one hand, technology can automate certain routine tasks. This may reduce demand for workers performing repetitive activities.

On the other hand, digital transformation creates demand for new occupations. These include software developers, data analysts, cybersecurity specialists, digital marketers, UX designers, IT managers, and other technology professionals.

Therefore, the main challenge is not simply the number of jobs but the transformation of required skills.

Uzbekistan needs to invest in digital education so that workers can adapt to changing labour-market conditions.

Universities and vocational institutions should strengthen programmes related to programming, data analysis, artificial intelligence, digital business, economics, and cybersecurity.

At the same time, digital skills should not be limited to IT specialists. Basic digital literacy is increasingly necessary for workers across almost every sector.

8. Digital Government and Public Services

Digitalisation can also transform the relationship between citizens and government.

Electronic government services can reduce administrative costs and make public services more accessible. Citizens can submit applications, obtain documents, make payments, and access information online.

Digital public services can also improve transparency and reduce unnecessary bureaucracy.

For Uzbekistan, expanding digital government can contribute to administrative efficiency and improve the quality of interactions between citizens, businesses, and public institutions.

However, digital public services should be designed in a way that remains accessible to people who have limited digital skills or limited access to the internet.

9. Challenges of Digitalisation in Uzbekistan

Despite its significant benefits, digitalisation creates several challenges.

9.1 Digital Divide

Not all individuals and regions have equal access to high-quality internet and digital technologies.

If digital infrastructure develops unevenly, some groups may benefit significantly more than others. Rural populations, low-income households, and people with limited digital skills may face greater barriers.

Reducing the digital divide should therefore be an important policy priority.

9.2 Cybersecurity

As more economic activities move online, cybersecurity risks increase.

Businesses, banks, government institutions, and individuals store increasing amounts of information digitally. Cyberattacks, fraud, and data breaches can create significant economic and social costs.

Investment in cybersecurity infrastructure and public awareness is therefore essential.

9.3 Lack of Digital Skills

Technological infrastructure alone cannot create a successful digital economy.

People need the knowledge and skills required to use digital technologies effectively. Therefore, education and professional training must develop alongside technological infrastructure.

9.4 Data Protection and Privacy

The growth of digital services creates large amounts of personal and commercial data.

Effective regulations are needed to protect personal information and ensure responsible use of data.

Trust is essential for the development of digital services. If consumers do not trust digital platforms, they may be unwilling to use online financial or commercial services.

10. The Importance of Human Capital

Human capital is one of the most important factors determining whether digitalisation will generate long-term economic benefits.

Uzbekistan can strengthen its digital economy by improving education in mathematics, economics, statistics, programming, English, data science, and business.

Universities should also encourage interdisciplinary education. For example, students of economics can benefit from learning data analysis and programming, while IT students can benefit from understanding economics and business.

Such combinations can produce professionals capable of connecting technological innovation with economic decision-making.

11. Policy Recommendations

Several policy measures can support Uzbekistan's digital transformation.

First, the government should continue expanding reliable and affordable digital infrastructure across both urban and rural areas.

Second, digital education should become an important component of the national education system. Students should acquire practical digital skills rather than only theoretical knowledge.

Third, policies should support startups and technology-based businesses through financing, innovation programmes, business incubators, and international partnerships.

Fourth, cybersecurity and data protection should remain central priorities.

Finally, Uzbekistan should strengthen cooperation between universities, businesses, government institutions, and international organizations. Such

cooperation can accelerate innovation and help ensure that education programmes reflect actual labour-market requirements.

12. Future Prospects

The future of Uzbekistan's economy will increasingly depend on its ability to adopt and develop digital technologies.

Artificial intelligence, cloud computing, fintech, e-commerce, automation, and digital platforms are likely to become increasingly important in economic activities.

Uzbekistan has the potential to become a stronger participant in regional and global digital markets if it continues to invest in infrastructure and human capital.

The country's young population represents a major advantage. With appropriate education and access to technology, young people can become entrepreneurs, software developers, digital specialists, researchers, and participants in international digital labour markets.

Therefore, digitalisation can become more than a process of technological modernization. It can become a mechanism for creating new industries, increasing productivity, improving competitiveness, and generating higher-value employment.

13. Conclusion

Digitalisation is becoming an increasingly important driver of economic transformation in Uzbekistan. It has the potential to increase productivity, support entrepreneurship, expand financial inclusion, improve public services, and connect businesses with domestic and international markets.

At the same time, digital transformation creates challenges related to employment, cybersecurity, data protection, digital inequality, and skills shortages.

The success of digitalisation will therefore depend on the country's ability to combine technological investment with investment in people.

For Uzbekistan, developing digital skills among young people, supporting innovative businesses, improving infrastructure, strengthening cybersecurity, and

expanding access to digital services can create a strong foundation for long-term economic development.

Ultimately, digitalisation should not be viewed simply as the adoption of new technologies. It should be understood as a broader economic transformation that changes how businesses, governments, workers, and consumers participate in the economy.

If managed effectively, digitalisation can help Uzbekistan build a more productive, competitive, innovative, and inclusive economy.

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