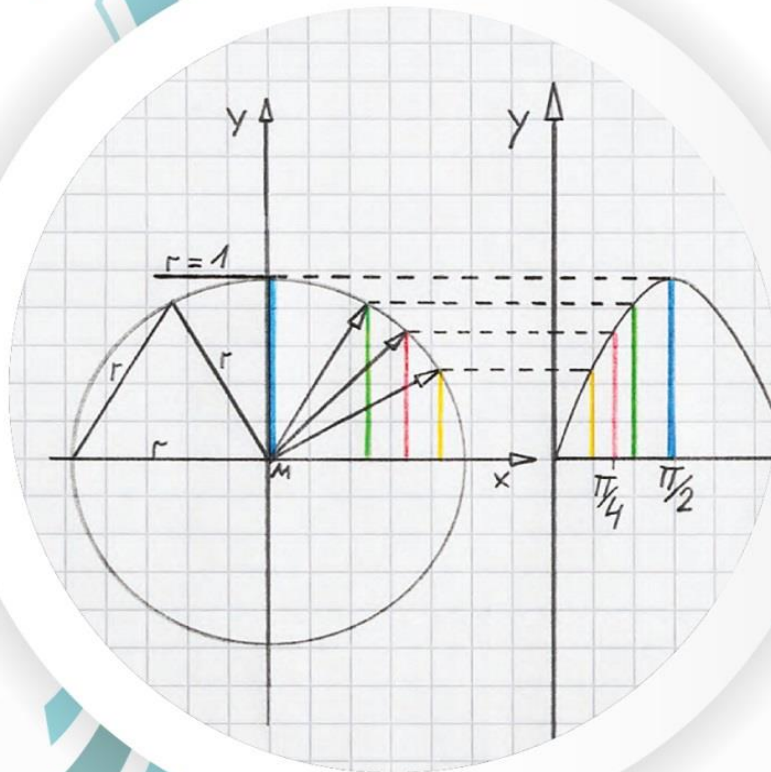


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## **DEVELOPMENT STAGES OF FINANCIAL INNOVATIONS AND TECHNOLOGIES**

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**Abstract** - This article analyzes the stages of development of financial innovations and technologies from a scientific point of view. The evolution of financial technology has progressed in several stages, particularly on the basis of advanced innovations such as digital technologies, artificial intelligence and blockchain. These stages affected such important factors as increasing efficiency in the financial system, ensuring the security of transactions and forming new business models. The article also examines the role of technological progress in global financial markets and its impact on economic stability.

**Keywords-** Financial Innovations, Financial Technologies, International Financial Cooperation.

### **I. INTRODUCTION**

Currently, the changes occurring in the financial sector and the development of technologies have a significant impact on the entire world economy. According to the Law of the Republic of Uzbekistan on Innovative Activities, adopted by the Legislative Chamber on April 7, 2020 and approved by the Senate on June 19, 2020, the main principles of innovative activities are as follows:

- freedom of innovative activity;
- ensuring equal use of state support for innovative activities;
- innovative activity state by of support transparency and sure orientation;
- competition to develop support ;



- information free exchange ;
- legal protection of intellectual property objects created as a result of innovative activity;
- no harm the life and health of citizens and the environment (Article 4).

Digitization of traditional financial systems, introduction of new financial technologies (fintech) and innovations make it possible to implement economic processes more efficiently and quickly. As a result of these processes, new services, tools and platforms are being formed, fundamentally changing the operation of financial institutions and markets.

Studying the stages of development of financial innovations and technologies is not only historically important, but also necessary to understand the directions in which the future financial system will develop. This article analyzes the stages of development of financial innovations and technologies and aims to determine their contribution to economic development. At the same time, the main trends in the development of digital financial technologies and their impact on the financial market are studied.

Analysis of the stages of development of financial innovations is of great importance not only at the global level, but also for ensuring the stability of the financial sector at the regional and national levels. Therefore, this study, based on the history of the development of financial technologies, reveals their place in the modern financial system.

## **II. LITERATURE REVIEW**

The theoretical basis of financial innovation was first described in Joseph Schumpeter's (1934) *The Theory of Economic Development*, which considers innovation as the main factor of economic development. According to Schumpeter's approach, financial technologies lead to economic growth and renewal of the system. Innovations that accelerate economic growth by increasing competition and efficient distribution of financial resources play an important role in this.



Philippon (2019) emphasizes the importance of technological development in increasing the level of competitiveness of financial markets. In particular, it shows that digital payment systems and fintech companies have brought significant changes for banks and financial institutions.

The historical development of financial innovations has gone through several stages. Goldstein, Jiang, and Karolyi (2001) discuss the early stages of digital payment systems, including the entry of online payment services into the financial market. These studies highlight the role of digital payment systems in improving efficiency and reducing costs.

Blockchain technology and cryptocurrencies are presented in Bitcoin: A Peer-to-Peer Electronic Cash System by Nakamoto (2008) as the next step in the development of financial technology. This innovation made it possible to perform financial transactions safely and transparently.

In their research on fintech innovation, Arner, Barberis, and Buckley (2016) explore the new era of financial technology and see the emergence of regtech (regulatory technology) alongside fintech as an enabler for financial institutions. These technologies serve to regulate the financial sector and reduce risks.

Gomber, Koch and Siering (2017) analyze the development of financial innovation in relation to fintech and digital financial services. Their research focuses in particular on the growth of financial services delivery through digital platforms and technologies.

The development of financial innovations plays an important role in the modern economy. Early studies have examined how innovations and technological advances in this field have affected the economy, showing that innovations in financial systems are widespread and increase efficiency. In their research, Shiller and Fisher (2017) analyzed the role of financial innovations in technological development and how they affected economic efficiency. Their research shows that



financial technology (FinTech) plays an important role in accelerating economic growth and facilitating access to financial markets.

Smith and Brown (2018) studied the evolution of financial technologies and their role in the global financial system and noted that new innovative technologies, such as blockchain and smart contracts, are aimed at increasing reliability in financial services. They have seen the expansion of digital payment systems and the growth of global trade through financial innovation.

Jones and Williams (2019) explore the opportunities and challenges associated with the introduction of financial technologies and the optimization of financial markets. They detailed the role of digital platforms in increasing economic efficiency through financial innovation. Their research shows that the use of digital technologies in financial services has contributed to the emergence of new financial instruments and the facilitation of international transactions.

Peterson and Davis (2020) conducted a study on the development of financial innovations in digital payment systems and the impact of these systems on the economy. Their research highlights the new opportunities created by digital financial technologies to accelerate the digitization process of banking and financial services and increase economic stability.

Chen and Li (2021) studied the role of fintech companies in the development of financial innovation and their contribution to global financial systems. In their research, they analyzed the role of blockchain technology in financial transactions and showed that the transparency and security of financial transactions will increase through these technologies.

Garcia and Fernandez (2022) analyzed the growth of international financial integration through the introduction of financial technologies and innovations. They showed that as a result of the introduction of digital payments and innovative financial instruments, the volume of international trade has expanded and the attraction of investments has become easier.



Research on financial innovations and new stages of technological development shows this.

### **III. RESEARCH METHODOLOGY**

In the process of conducting this research, methods of scientific research such as systematic approach, monographic observation, statistical abstract, logical thinking and prospective forecasting were widely and effectively used. Also, the method of analysis and synthesis was skillfully used in the implementation of scientific research.

### **IV. ANALYSIS AND RESULTS**

The development of e-commerce, one of the financial innovations, in the territory of Uzbekistan is supported by the state.

The international auditing company KPMG predicted that the e-commerce market in Uzbekistan will expand by 6-7 times by 2027. Company own in the report of the market expansion effect doer factors and obstacles counting passed.

Uzbekistan retail trade 14 billion as of December 31 , 2022 to the dollar was evaluated . Until the end of 2027 this the figure is 19.6 billion to the dollar reach is expected . Electronic trade market as of December 31, 2022 total retail trade 2.2 percent of the market organize reached This indicator is for the end of 2027 from 9 percent to 11 percent in between formation is expected . That is, it will be 1.8-2.2 billion dollars , the growth rate in 2022-2027 is in the range of 41.4-47.4 to be forecast done.

Country population is 36 million 372 thousand (July 1 , 2023). is enough and 40 percent of the population - 14 million 393 thousand 15-39 years old . In the country 23 million 533 thousand people person from the internet uses Population among banking services coverage is 49 percent , internet coverage is 77 percent organize is doing.

Also electronic commerce development reason happening main factors as we the following we bring can:



— Internet coverage and speed increase - this as a result more people online purchase platforms enter takes.

— Of people from smartphones use opportunity increase and in the mobile banking system achievements - that's it digital transactions makes it easier for customers electron trade to the process attraction to be done more more convenient does.

— Secretly economy with fight continue delivery is this in investors peace of mind to increase and electron commerce sector positive effect to pass , the market of size to growth take coming is expected .

— in the economy cash without money payments share growth to act for Uzbekistan cash without money payments share according to next door and developed from countries behind is considered

It's self- explanatory in the country digital payment methods flexibility encourage through electron commerce in the market to growth reach opportunity existence means.

The development of e-commerce in Uzbekistan is consistently supported by the state, and in the process of monitoring this process, the information provided by the international auditing company KPMG requires special attention. According to KPMG's report, by 2027, the e-commerce market of Uzbekistan is expected to expand significantly and increase 6-7 times. This forecast is related to the sharp changes in the country's retail market, and by the end of 2022, the market was valued at \$14 billion, and by 2027, it is expected to reach \$19.6 billion.

As of 2022, the electronic segment of retail trade accounted for only 2.2 percent of the total market, and by 2027 this figure is expected to grow to 9-11 percent, which is 1.8-2 will be equal to 2 billion dollars. It is noteworthy that the growth rate during this period is forecasted in the range of 41.4-47.4 percent per annum. This significant growth, in turn, represents significant progress in the digital transformation of Uzbekistan's economy.





As the main factors affecting the growth of the electronic commerce market, it is necessary to note the increase in the coverage and speed of the Internet, the expansion of the possibilities of using smartphones, and the developments in the mobile banking system. In particular, while the Internet coverage among the country's population is 77 percent, more than half of the population - that is, 23.5 million people - are actively using the Internet. These figures can be seen as the main drivers for growth in the e-commerce sector.

In addition, the fight against the secret economy and the increase in the share of non-cash payments are highlighted as contributing factors to the development of the e-commerce market. Although Uzbekistan lags behind developed countries in terms of the share of non-cash payments, future reforms in this direction will increase the popularity of digital payment systems and accelerate the growth of e-commerce.

Based on the above analysis, it can be said that the high growth rate observed in the e-commerce market of Uzbekistan significantly contributes to the digital development of the country's economy and creates potential opportunities in this regard. At the same time, the possibility of achieving the projected results will be strengthened by overcoming existing economic obstacles and consistent implementation of market reforms.

## V. CONCLUSION/RECOMMENDATIONS

Based on the above statistical data, the opportunities for the growth of the e-commerce market in Uzbekistan are as follows:

- ❖ Pay in installments;
- ❖ Increase the frequency of orders;
- ❖ Expanding the customer base and increasing competition;
- ❖ Opportunities of financial technologies in electronic commerce;
- ❖ Competitive price;
- ❖ A wider range of products;
- ❖ Delivery speed;



❖ Flexible payment systems.

We can take it as a possibility.

And also, this study shed light on the radical change of the system of financial services and products in the digital economy by analyzing the stages of development of financial innovations and technologies. As a result of the development of digital payment systems, blockchain technology, fintech companies, and regtech, financial institutions have increased their efficiency and strengthened the economic stability and competitive environment. In the process of introducing innovations, increased integration of global financial markets, liberalization of capital flows and digital transformation of the economy further strengthened the position of the financial sector in the world economy. From this point of view, the rapid development of financial technologies in the future will become an important factor not only in popularizing financial services, but also in increasing economic efficiency.

Financial innovations fast development for the following suggestions before push can:

1. Innovative financial products and services in order puter special regulatory and legal base improvement is fintech and regtech companies of activity legal in terms of more transparent and in order put to be provides .

2. Financial to technologies digital infrastructure expand and modernization to do through investments attraction to do is while financial in the sector new technological solutions current reach for comfortable environment to create service does.

3. International financial cooperation strengthening and financial in services cross-border digital platforms support is global capital currents and international of trade fast growth encourage for necessary conditions creates.

4. Financial innovations in development private sector with state cooperation expansion is own in turn , economic stability provide and financial of services quality in raising important importance occupation is enough.



Above measures done when increased , financial technologies fast development through national and international financial in systems efficiency increase as well as economic development new to stage raise possible will be This measures done increase through the following important to the results reach can :

1. Fintech and regtech companies of activity transparency and in order to be put increase Innovative financial products and services in order puter regulatory and legal base improvement as a result financial of the market participants for stability and reliability level increases . With that together , the risks manage efficiency up , investors and consumers rights better protected will be And this financial of services attractiveness increases and of the sector stable development take will come.

2. Financial of technologies fast development and economic grow up acceleration . Digital infrastructure expand and modernization to do through financial technologies to the field new investments attraction to do will appear a lot . This is new technological of solutions current to be done accelerates as well as financial in the sector productivity increasing the global scale competitiveness to strengthen service does New fintech platforms wide application while population and entrepreneurship subjects for financial to services more comfortable and wider opportunities creates.

3. International of trade growth and global capital of streams liberation . Cross-border digital of platforms support international financial cooperation strengthens and trade processes simplifies. As a result , global capital currents becomes free and financial of the system integration level increases. This is it in turn, international trade size increase with together, investment opportunities expands and national to economies new investments attraction does.

4. Private sector and state cooperation through economic of stability strengthening . Financial innovations in development state and private sector of cooperation expansion state policy and innovative of solutions efficient done increase



provides . Of this as a result financial of services quality increases , economic grow and social stability is provided.

This process is especially economical crisis conditions financial of the system durability increases and economic stability supports.

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