



## THE ROLE OF FINANCIAL TECHNOLOGIES IN THE DIGITAL ECONOMY

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### Abstract.

The article studies the concepts of digitization, digital economy and financial technologies and considers the specific features of the digital economy, digital economy sectors are also studied. In the course of the article, the areas of application of financial technologies in the digital economy are analyzed.

**Keywords:** fintech, digital economy, artificial intelligence, supotech, regtech, crowdfunding, digital marketing, P2P and B2B.

### Introduction

Advances in digital technology have become the main helper of humanity today. It searches, sort's data, buys, sells, manages, monitors, creates large databases, etc. Virtual life has even become part of the real world. The concepts of artificial intelligence, meta-universe, and cloud data are not new for today. The rapid development of digital technologies created the need for countries to transition to a digital economy.

### Literature Review

Nicholas Negroponte, an American architect and computer scientist, the founder of the Massachusetts Institute of Technology (MIT) media laboratory, first used the term «digitization» in 1995. Nicolas Negroponte was the first to use the concept of "digital economy" in his book "Being Digital" about a future life where digital technology will become an important part of everyday life [1].

According to Mahmudov Baxriddin and Mullabayev Baxtiyarjon, that in the context of globalization, digitization of the national economy plays an important role in integrating the economies of developed countries. In the new economy, digital networking and communication infrastructure provide a global platform that enables it to develop strategies for enterprise and organization development. In addition, they enable collaboration, economic communication and information exchange and efficiency. Currently, the transition to digital technology is



underway. From media to automobiles, tourism, agriculture and healthcare, efforts are now underway to digitize the entire economic system [2].

Digital economy platform - consumers and producers functions that provide the needs of producers and digital environment (software and hardware complex) with a set of services, as well as the possibility of direct communication between them. As a software product, the platform is all you need collects technologies, to a large number of users information acquisition, high-quality planning, analysis services and most importantly, it gives access to the market. Digital platforms are an important tool of the digital economy, which combines many new technologies and provides users with the best digital tools and free competition gives the opportunity to use the market [3].

### **Analysis and Results**

The digital economy is an activity aimed at the implementation and profiting of production, distribution, exchange, consumption and management processes through clouds and large volumes of data, which are closely connected with each other with the help of digital technologies. In this process, the state offers electronic products, provides electronic services for its citizens, and controls the circulation of documents through electronic organization.

There are three main components of the digital economy, which are as follows:

1. Digital infrastructure. This includes technical support, software, and telecommunications.
2. Virtual business transactions. It means a business process that reflects the interaction of virtual market subjects through the network.
3. Electronic commerce. Delivery of goods via the Internet is currently the largest segment of the digital economy.

Today, there are the following sectors of the digital economy:

1. E-commerce is a new type of trade, which includes the provision of services through virtual stores. While e-commerce saves time for buyers, they need to know how to choose the right products. For sellers, it provides an opportunity to reach more buyers. According to the forecast of NASDAQ, by 2040, 95% of purchases will be made online.
2. Electronic marketing is a set of marketing activities of the company related to the use of electronic means. Internet marketing and digital marketing are different concepts. Internet marketing is a part of digital marketing, and "digital



marketing" offers more opportunities, that is, offline tools can also be used through it. Digital marketing services are in high demand in B2B, B2C segments.

3. Electronic banking - technologies for providing remote banking services.

4. Electronic insurance services - technologies for providing online insurance services.

The largest segment of the digital economy is e-commerce, which offers several advantages:

- wide coverage;
- opportunity to reduce costs;
- fast communication;
- automation of customer service;

Digital strategies, digital infrastructure, database, and digital skills are necessary for the effective functioning of the digital economy.

Financial technologies are an integral part of the digital economy and include digital and electronic currency, online and mobile banking, crowdfunding services, electronic exchanges of international currencies, mobile and digital wallets, digital data exchange platforms, electronic commerce, robo- includes consultants.

Financial technologies are a system of providing, delivering and using financial services through modern technologies. Fintech allows not only companies and business owners, but also consumers to effectively manage financial operations and processes through special software.

Financial technologies include the integration of technologies with financial services that allow for improvement and automation in the implementation of banking and investment operations. These technologies help in efficient management of financial processes. Time and money savings can be achieved with financial technologies. It also offers risk management using artificial intelligence. Simplifies financial operations and ensures speedy payments.

The rapid digitization of banking, financial services and insurance is taking place all over the world, which in turn creates positive prospects for the financial market. Financial technologies have increased efficiency and brought the banking system to a new level by providing speed and convenience. The use of financial technologies that allow processing large amounts of data in a short period of time, increasing efficiency, minimizing the possibility of errors caused by the human factor, is helping the market growth. The use of artificial intelligence ensures



fraud prevention, risk management and reduction, and monitoring of financial transactions.

New digital financial technologies are used in various market segments and have already become an integral part of all types of financial services. Financial technologies have changed business models and increased customer focus. The development of financial technologies serves to achieve the following goals:

- development of competition in the financial market;
- expanding the type and quality of financial services;
- reducing risks and costs in the financial sector;
- ensuring safety and stability in the use of financial technologies;
- increase the level of competitiveness of innovative technologies.

The main advantage of financial technologies is that the process of providing services is flexible and characterized by transparency, consistency and profitability.

In the digital economy, financial technologies are often used in the following areas:

- lending and personal finance - P2P lending, robo-advisor service, programs and applications for financial planning, stock trading and trading;

Fintech companies: LendingClub, Kabbage, Robinhood, Etoro, Credit Karma, Binance, E-Loan.

- crowdfunding and business financing;

Fintex platforms: Indiegogo, Kickstarter, Boomstarter, Planeta.ru, StartTrack.

- payments and retail operations: online payment services, online transfer services, P2P currency exchange (money transfers between individuals), B2B payment and transfer services (between legal entities money transfers), cash registers and smart terminals in the cloud, public payment services;

Fintex companies: PayPal, WePay, Alipay, WeChat, Apple Pay, Google Pay, VK Pay.

- blockchain and cryptocurrencies (Bitcoin, Ethereum, Cardano, EOS, Tron, ChainLink, Tezos);

- digital banks (Monzo, Revolut, Starling Bank, Finicity, Anorbank and TBC bank).

The introduction of digital technologies into the financial sector has made it possible to create favorable conditions for faster and more accurate reporting and financial management in general.

In addition, Regtech and Suptech technologies have become "helpers" of the modern financial market.



Regtech is the regulatory technology in its name, and this technology guides the regulatory processes in the financial industry. Regtech's core functions include regulatory monitoring, reporting and compliance. Regtech includes speed, integration and analytics as important features. Regtech can quickly separate and organize disorganized and interconnected data sets. Regtech can also be used for quick reporting. In addition, regtech uses analytical tools to collect large data sets and use them for various purposes. Financial organizations use regtech to optimize compliance with regulatory requirements, speed up the process of customer identification and ensure reliability, improve the quality of transaction analysis, control risk levels and combat cyber threats.

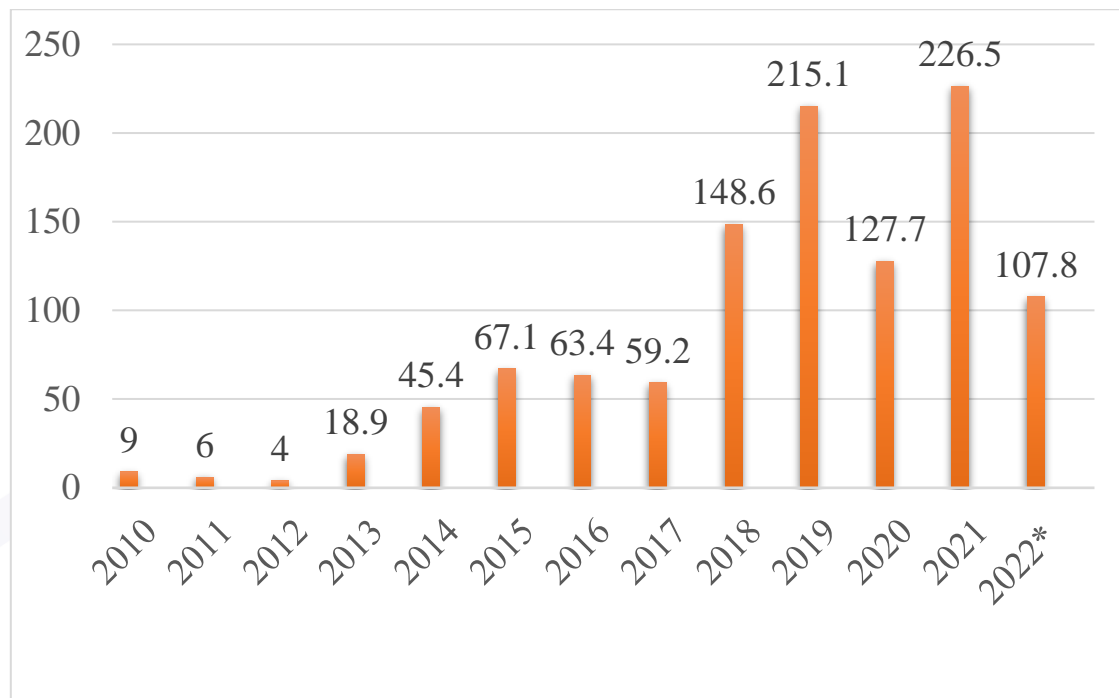
SupTech (Supervision Technology) is a technology that optimizes the control process and automates the work of not only financial companies, but also supervisory bodies. In order to prevent fraud, central banks analyze the relationship of borrowers, forecast the demand for cash, predict the stability of credit and other institutions based on payment data, conduct online transactional analysis of credit organizations' data, and automate the control of market participants. Uses supotechnologies for implementation.

According to the MGI (McKinsey Global Institute) report, financial technologies have created conditions for the provision of financial services at a low price, and this in itself serves to increase the number of users of banking services. 1.6 billion people will become bank customers for the first time through digital finance[6]. Digital finance can be a tool that has a positive impact not only on individuals, but also on business and government policy. Through fintech, businesses are able to monitor and analyze cash flow and execute transactions in a shorter time frame. According to MGI's calculations, under the influence of fintech, loans to individuals and businesses can increase by 2.1 trillion dollars. Widespread use of digital finance could increase the annual gross domestic product of all developing countries by \$3.7 trillion by 2025. This could lead to the creation of up to 95 million jobs across all sectors.

However, to take full advantage of the positive impact of digital finance, government and business need to work together and focus on:

- creation of a reliable and large-scale digital infrastructure;
- ensuring dynamic and stable markets of financial services;
- offering financial products that meet people's needs.





\* the first half of 2022

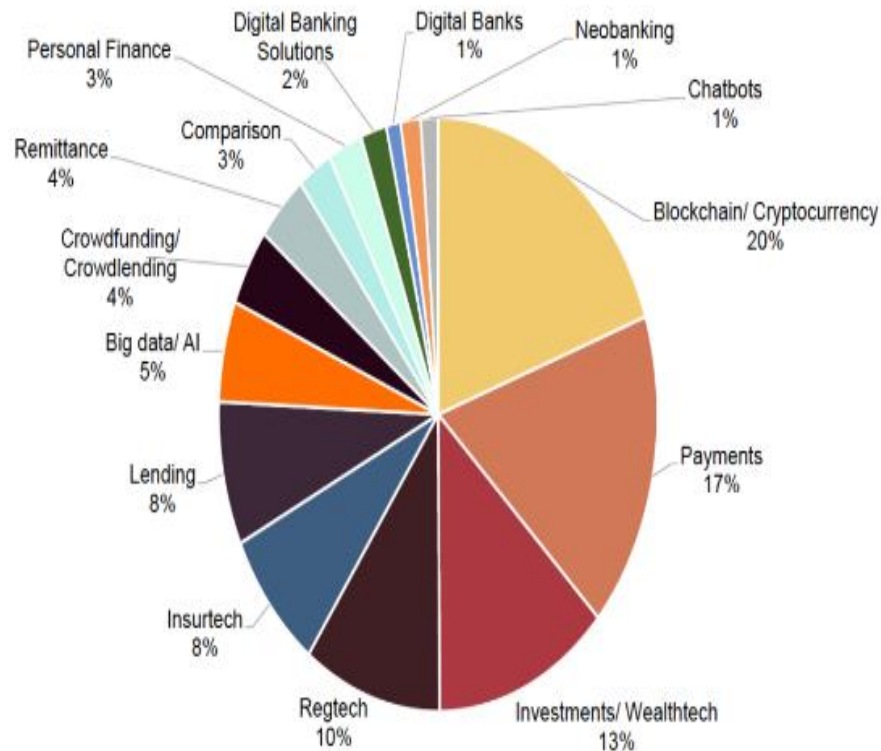
**Figure 1. Total value of investments in fintech companies worldwide[7]**

Fintech companies play an important role in the digital financial economy. These companies can compete with banks in the provision of financial services, and can act as a complement to banks in their relations with customers.

Fintech companies providing financial services are increasing and developing day by day. Fintech is also a market for innovative startups. Advances in financial technology are enabling efficiency gains for businesses ranging from the public to large corporations to retailers. In addition, fintech is a promising and highly profitable innovative business. That is why the flow of investments to such companies is expanding. Until 2013, less than 10 billion dollars of annual investment was allocated to fintech companies around the world, but in the following years this figure increased sharply.

Although the digital transformation of the financial sector is not yet complete, it is already changing financial infrastructure, financial products and business models, and market relations. Innovation has penetrated different areas of financial services to varying degrees.

According to the Global Fintech ranking, Singapore took the 4th place, and blockchain, cryptocurrencies and payment systems have high shares in the market share of fintech companies.



**Figure 2. Fintech companies in Singapore by segment [9]**

## Conclusions

The development of financial technologies saves time and money, as well as increases work efficiency. Fintech is now being integrated into all areas. Fintech has taken banking, finance, trading, management and marketing to the next level. Although fintech companies are the main competitors of banks, they are also their partners. The advent of digital banking has provided new and convenient banking services. The development of e-commerce has created a working environment for direct and fast communication with the customer and the manufacturer, as well as studying individual requirements, knowing many customers at the same time. New business models have emerged. We began to create a modern infrastructure. At the same time, new professions and industries are developing. The first requirement of the modern world for each country is the transition to a digital economy and the introduction of fintech achievements.



## References

1. Nicholas Negroponte. Being Digital// Alfred A. Knopf, Inc. U.S.A, 1995. P243.
2. Mahmudov Baxriddin, Mullabayev Baxtiyarjon. The impact of the digital economy on economic growth// International Journal of Business, Law, and Education, Volume 01, Number 01, August 2020. <https://ijble.com/index.php/journal>
3. M. PORSAEV, SH. SAFAROV, Q. USMANOVA. Raqamli iqtisodiyot asoslari. «Fan va texnologiyalar nashriyot-matbaa uyi», 2020. 372 b.
4. Маркова Вера Дмитриевна. Цифровая экономика// НИЦ ИНФРА-М, с 186
5. Гулямов С, Эргашев Р, Хамраева, Абдуллаев С. Рақамли иқтисодиёт. ТДИУ.Қар.МИИ, 2020й, 365 бет.
6. [www.mckinsey.com/featured-insights/employment-and-growth/how-digital-finance-could-boost-growth-in-emerging-economies](http://www.mckinsey.com/featured-insights/employment-and-growth/how-digital-finance-could-boost-growth-in-emerging-economies).
7. [www.statista.com/statistics/719385/investments-into-fintech-companies-globally](http://www.statista.com/statistics/719385/investments-into-fintech-companies-globally).
8. [www.insightsartist.com/2021-global-fintech-rankings](http://www.insightsartist.com/2021-global-fintech-rankings).
9. [www.fintechnews.sg/57639/fintech/singapore-fintech-report-2022](http://www.fintechnews.sg/57639/fintech/singapore-fintech-report-2022).