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DOI <https://doi.org/10.26661/2414-0287-2024-4-64-18>**DIGITAL FINANCIAL SERVICES AND THE ACCOMPANIED RISKS****Shcheblykina I.O., Kushchik A.P.***Zaporizhzhia National University**Ukraine, 69011, Zaporizhzhia, Universytetska str., 66**innasheblykina@gmail.com, 20favorit10@i.ua**ORCID: 0000-0002-3214-8478, 0000-0003-0627-2296***Key words:**

digital technologies, digitalization, digital financial services, risks, financial services market, financial institutions.

The article analyzes the features of digitalization of the financial services market. In particular, the main consequences of the active use of information and communication technologies by financial institutions for their development, the sphere of financial services and the national economy are singled out and systematized. It also focuses on the basic advantages and disadvantages of using such technologies by various business entities. The main threats to users from the digitalization of financial services are studied. Accordingly, the substantiation of the impact of digital technologies on the state of information security in modern conditions of total use of such technologies in the financial services market has been carried out.

It is noted that digital technologies are a key element of digital transformation, which are used to improve the processes of financial, investment and risk management, interaction with customers and establish customer feedback and increase efficiency. It has been determined that digital technologies have already been used in the financial sector of the national economy, which can ensure the speed, efficiency and accessibility of financial transactions.

ЦИФРОВІ ФІНАНСОВІ ПОСЛУГИ ТА РИЗИКИ, ЩО ЇХ СУПРОВОДЖУЮТЬ**Щебликіна І.О., Кущик А.П.***Запорізький національний університет**Україна, 69011, м. Запоріжжя, вул. Університетська, 66***Ключові слова:**

цифрові технології, цифровізація, цифрові фінансові послуги, ризики, ринок фінансових послуг, фінансові установи.

У статті проаналізовано особливості цифровізації ринку фінансових послуг. Зокрема, виокремлено та систематизовано основні наслідки активного використання інформаційно-комунікаційних технологій фінансовими установами для їхнього розвитку, сфери фінансових послуг і національної економіки. Також акцентовано на базових перевагах і недоліках використання таких технологій різними суб'єктами господарювання. Досліджені основні загрози для користувачів від цифровізації фінансових послуг. Відповідно проведено обґрунтування впливу цифрових технологій на стан інформаційної безпеки у сучасних умовах тотального використання таких технологій на ринку фінансових послуг. Зазначено, що цифрові технології є ключовим елементом цифрової трансформації, які використовуються для покращення процесів фінансового, інвестиційного і ризик-менеджменту, взаємодії з клієнтами та налагодження зворотного зв'язку із споживачами та підвищення ефективності діяльності. Визначено, що у фінансовому секторі національної економіки вже знайшли застосування цифрові технології, котрі здатні забезпечити швидкість, ефективність та доступність фінансових операцій.

Statement of the problem

Today, digital technologies have become one of the main factors in the development of the national economy and financial sector of any modern country. Their impact is particularly noticeable in the financial services sector, where credit

and investment institutions are actively innovating to make the most of the potential of digitalization. This allows not only to optimize processes, but also to significantly increase the quality and availability of the services they provide.

The financial sector has already undergone significant changes under the influence of information and

communication technologies, which have forced financial intermediaries to reconsider approaches to customer service, change development strategies, and sometimes completely transform their business models. These technologies create significant benefits for all participants in the financial services market, contributing to increasing their efficiency and competitiveness. At the same time, the process of digitalization is not without challenges – the introduction of innovations is often accompanied by certain difficulties and negative consequences that may arise due to the rapid transition to digital solutions in the financial sector [1, 2].

The introduction of modern technologies in the activities of financial institutions is largely dictated by the desire to improve the quality of services and increase their competitiveness. This provides them with favorable conditions for strategic and long-term development. However, the digitalization of the financial sector carries certain risks for consumers as well. In particular, threats arise that can negatively affect their financial condition and the security of confidential information, including financial data.

Analysis of recent studies and publications

A significant contribution to the study of the impact of digital technologies on the development of the modern financial market was made by such scientists as V.G. Babenko-Levada, L.M. Bogrinovtseva, M. Dubyna, A. Dunska, T.V. Zabashtanska, V. Lagodienko, O.V. Popelo, A.Y. Semenog, O.A. Skorba, T.F. Sunduk, A. Tarasenko, A. Tkachenko, N. Kholyavko, A.O. Chornovol, I.I. Chunya, O.V. Shishkina, R.V. Yankova and others. However, despite significant developments in this area, it is worth noting that as a result of the rapid introduction of innovative financial technologies, the theoretical justification for the development of the financial market lags far behind the practical reality, therefore it requires additional research.

Objectives of the article

The article is aimed at studying the current trends in the introduction of digital financial services in the financial market, highlighting the main risks that accompany them, determining the impact and prospects for the use of digital financial services in the activities of financial institutions.

Statement of the main material

The financial services market is a complex macroeconomic system that functions in the context of the development of both banking and non-banking institutions. It can be considered as a set of economic relations that arise in the process of providing intangible services with a certain consumer value. These relations are formed between market subjects during the satisfaction of the financial needs of some participants (consumers) by others (producers) on the basis of mutually beneficial cooperation.

This cooperation is carried out at the expense of own resources, customer funds or attracted financial resources of other entities, in accordance with the requirements of the current legislation. The main purpose of such interaction is to make a profit, preserve the value of assets or achieve

a social effect [3]. Today, digital technologies penetrate almost all spheres of public life, including economic. Their use allows business entities to increase the efficiency of their activities and strengthen their competitive positions. In the financial sphere, the application of these technologies is of particular importance, because the high level of competition forces financial institutions to actively innovate.

It was their proactive participation in the development, adaptation and improvement of digital solutions that contributed to the rapid digitalization of the entire financial services sector, making it more dynamic, efficient and consumer-oriented [4]. The main participants in the financial services market are financial institutions, which widely use modern digital technologies in their activities to increase competitiveness, increase the number of customers, and expand the geography of the financial services market. The most common among them are Internet banking, mobile banking, Internet trading, artificial intelligence, cloud technologies, blockchain, electronic wallets, sharing, crowd-funding, digital currency mining, etc. [5]. In Table. 1 provides a list of digital technologies that during 2023-2027. will be introduced into the financial services sector at the global level.

The general consequences of the active use of information and communication technologies by banking and non-banking institutions today include the following [3]:

- 1) the ability to store and effectively use large amounts of financial information, which are constantly increasing as a result of the work of financial institutions;
- 2) the ability to rationally build business processes based on an in-depth analysis of financial information available and already accumulated from customers;
- 3) improving the quality of risk management processes of financial institutions, which has a positive effect on their financial condition and efficiency of functioning;
- 4) better interaction between financial institutions and other participants in the financial services market, which provide additional services to the following institutions: credit bureaus, rating agencies;
- 5) the ability to collect more information about potential customers, which allows you to make more rational and balanced decisions;
- 6) convenience of interaction between financial institutions and their customers, digitalization of financial services delivery processes;
- 7) digitalization of the payment sphere, which allows to ensure the instantaneity of settlements between customers, payment of their obligations to financial institutions;
- 8) the ability to use significant amounts of macroeconomic information by public authorities to identify systemic potential crisis phenomena in the financial services market and their timely prevention.

Despite the obvious advantages of digital technologies for the financial sector, their use also creates new threats for both producers and consumers of financial services. Experience shows that security issues become key problems, because the level of fraud and financial losses can be significant. Solving such problems often takes a lot of time, especially given the large number of clients with which financial institutions work.

Table 1 – Digital technologies that are most likely to be introduced into the financial services sector in the period 2023-2027,%

Technology	Probability
Digital platforms and applications	93
Education and Workforce, Development Technologies	82
Big Data Analytics	91
Internet of Things and connected devices	74
Cloud computing	90
Encryption and cybersecurity	91
E-commerce and digital commerce	81
Artificial intelligence	83
Text, voice, image processing technologies	71
Cryptocurrencies	40

Note: Built on the basis of [5]

The reliability of financial transactions and the protection of consumer information are important components of a financial company's reputation. A high level of protection not only ensures the quality of services, but also helps to strengthen customer confidence, which is key to creating favorable conditions for the company's long-term development in the future [6].

The digitalization of the financial services sector has indeed led to the formation of a significant number of risks for all economic entities, in particular for banking and non-bank financial institutions. With a more detailed analysis of the threats and risks of the digital transformation of the financial market for households, two main types of risks can be distinguished: individual and systemic.

Individual risks relate directly to individual users of financial services and include threats such as fraud, identity theft, losses due to hacker attacks or hacks, and risks of fraudulent financial transactions. These threats can directly affect the financial health of households, reducing their ability to economic stability. Among them, it is worth highlighting the following [3]:

- 1) insufficient level of digital literacy;
- 2) the presence of digital inequality in society and different access to information and communication technologies, which is determined by the territory of consumption of financial services;
- 3) the level of income for the purchase of the necessary mobile devices that allow you to use the digital capabilities of financial institutions, etc.

Systemic risks, in turn, are related to digital infrastructure and its impact on the overall financial services market. These can be global disruptions in the operation of financial platforms, major cyber threats, or even problems with the regulation of digital financial instruments that threaten the entire economic system. They can have significant consequences for all market participants and consumer confidence in digital financial services, these include the following [3]:

- 1) hacking actions, loss of individual and financial information;
- 2) dissemination of fake information about the functioning of financial institutions, the use of the names of banks, non-banking institutions to send fraudulent messages;

3) manipulation of human consciousness, which can be carried out on the basis of the use of the latest digital technologies of influence on human behavior (contextual advertising, manipulation of facts, statistical information);

4) cyberattacks on the work of financial institutions, which lead to the loss of individual customer information, which may be disseminated in the public domain in the future;

5) psychological influence in order to persuade consumers to irrational behavior in the field of financial decision-making due to the use of modern digital technologies (chatbots, calls, etc.).

Systemic risks are common to the entire financial services industry and can have an impact on all market participants, but their implementation also depends on individual factors, such as the level of protection, security policies in specific financial institutions and the ability to respond to threats. Digital technologies allow you to quickly process large amounts of customer data, which opens up new opportunities for the targeted use of information about different groups of consumers of financial services. This can be useful for personalizing services and improving customer experiences, however, there is also the potential for abuse, which creates new risks for consumers [7].

When it comes to fraud, digital technology makes it difficult to identify and identify fraudsters. This requires significant financial resources and time from financial institutions to investigate and investigate fraud cases. Therefore, customers may face delays in the process of returning lost funds, which, in turn, can reduce the level of trust in digital financial services and create additional financial risks for consumers.

In addition to the above-mentioned risks, the introduction and application of innovative digital technologies by financial institutions may be accompanied by the following risks (Table 2).

Undoubtedly, one of the main threats associated with the digitalization of the financial sector is the loss of personal information security. This can happen due to unauthorized access to financial information about customers, which poses significant risks to their privacy and financial health. Information security is a multifaceted and complex concept that encompasses data protection, integrity and availability of information systems in conditions of constant unpredictability. It includes both internal factors

Table 2 – Risks accompanying the process of providing digital financial services

Type of risk	Characteristic
Risk of inequality of access to financial services for certain groups of the population	Can lead to inequality in access to financial services for the elderly, people with disabilities and other categories of users
Technical and technological risks	Caused by hardware or software failure, which can suspend the operation of the financial institution's system and negatively affect customer service and reputation
Legal risks	Arise as a result of a violation of the confidentiality of data and intellectual property rights and may cause significant financial, reputational and other losses to the financial institution; Changes in regulatory framework can lead to changes in the activities of a financial institution and create a high level of uncertainty about its prospects
Financial risks	Due to insufficient qualification of specialists – developers of digital technologies, corresponding failure to take into account risk-forming factors in the construction of algorithms and other factors, can negatively affect financial indicators
Criminogenic risks	Arise as a result of the risk of leakage of financial information (customer data, money and transaction information, etc.), personal data of customers and their use for illegal purposes
Risk of job loss	The introduction of digital technologies can lead to the automation of more processes and lead to a decrease in the need for employees, and, therefore, to a reduction in staff, which can lead to a lack of perception of innovations by personnel and an inadequate response to new technologies
The risk of addiction to technology	associated with the use of digital technologies and can become an object of addiction for certain groups of users and negatively affect their psychological state and physical health

Note: Built on the basis of [8]

related to the technical, organizational, and human aspects of information management, as well as external threats, such as cyberattacks, hacker attacks, or natural disasters that can compromise data protection.

The protection of personal information is an important part of the overall information security system. Successful provision of this security is critical for creating a secure information space where all financial services market participants and other participants in economic activity can effectively develop. Only with proper information protection can consumer trust and the resilience of financial institutions in the digital environment be ensured [3,9].

Ensuring information security in the financial services market in the context of digital technologies is critical for the formation of a stable and efficient economic environment. Information security is becoming an important component of consumer protection, since financial relations occupy a central place in the life of each person and organization. The security of customers in banking and non-banking institutions is especially important, because it directly affects their trust in the financial system and, accordingly, the functioning of the entire financial services market.

The financial services market is built on a trusting relationship between financial institutions and their customers. Information security is the foundation of this relationship, because without proper data protection, consumers cannot be sure that their financial resources and personal information will remain safe. Therefore, ensuring information security is not only protection against threats, but also a necessary condition for maintaining the stability and development of the financial services market [10].

The practical implementation of the introduction of digital technologies by participants in the financial services market is associated with the solution of a number of problems of today, namely:

- ensuring a stable Internet during blackouts, which affects the quality of digital financial services provided to consumers;

- minimization of costs for digital innovations in the context of devaluation of the national currency and inflationary fluctuations,

- low degree of consumer confidence in digital technologies implemented by financial institutions;

- lack of developed financial and information infrastructure, which makes it impossible to scale digital financial services;

- digitalization affects the architectonics of the labor market, increasing the unemployment rate, as well as reducing the profitability of business structures that do not innovate, which can negatively affect the customer base of financial companies;

- low level of financial and digital literacy of consumers of digital financial services and insufficient digital competence of the staff of financial institutions can lead to a decrease in their use and negatively affect the financial results of the companies that implemented them;

- an increase in the number of cyberattacks requires the implementation of reliable security systems and protection of confidential customer information.

The digital transformation of the financial services market involves the transition from traditional forms of providing these services to the use of digital technologies and platforms. As a result of the digitalization of the financial services market, network effects are directly received by all its participants, in particular:

- financial intermediaries, which are financial institutions

- growth of profitability, competitiveness, innovation potential, trust and the number of consumers;

- the state (management, regulation, control and supervision bodies)

- increasing transparency and openness of transactions in the financial services market, accelerating the processes of digitalization of the economy, development of digital infrastructure, attracting a larger range of investors to the processes of financing defense capabilities and restoring the national economy;

– consumers of financial services
– quick access to banking, insurance, investment services, cost reduction, personalization of communications, etc. [5,11].

Therefore, the introduction of digital innovative technologies in the activities of financial institutions can indeed become an important factor in increasing their efficiency and competitiveness. These technologies can provide greater accessibility of financial services to a wider range of consumers, reduce their cost, and also allow the development of new financial products and services that meet the needs of the modern market.

Conclusions

The introduction of digital technologies in the financial services market really requires market participants to quickly respond to changes in the situation, both in the international and domestic financial services markets. As competition from fintech companies and neobanks is constantly increasing, financial institutions must adapt their strategies and services to new customer requirements and current trends.

When making appropriate decisions, financial institutions must carefully weigh the advantages and disadvantages of digital transformation. Among the advantages are increased efficiency of operations, reduced costs, better personalization of services for customers, as well as the ability to quickly respond to market changes. However, along with this, it is necessary to take into account risks, such as possible threats to information security, high competition, and the need for constant investment in technology and infrastructure.

Thus, financial institutions must strike a balance between rapid innovation and effective risk management to ensure sustainable operation and long-term success in today's competitive environment. The process of introduction and use of digital technologies by participants in the financial services market of Ukraine requires appropriate regulatory support, in particular in the field of security and protection of personal data, elimination of digital divides in the provision of financial services, development of cyber insurance, improvement of institutional support for the processes of digitalization of this market.

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