

# Modern Tendencies of Digitalization of the Financial Services Sphere

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## Abstract

The article is devoted to clarifying current trends in the digitalization of financial services. To this end, the evolution of this process in the financial sector was studied and six stages of its development were identified. The components of successful implementation of digitalization in the field of financial services and its tasks are outlined. It was found that fintech companies, which work to achieve effective interaction between the financial sector and innovative technologies in the use of mobile applications in order to most fully and quickly meet the needs of customers with financial services, are of great importance for the formation and development of digitalization in financial services. Current trends in the digitalization of financial services in Ukraine based on the use of fintech in general and banking institutions in particular are presented.

## Key words:

*digitalization, digitalization tendencies, sphere of financial services, financial services market, financial technologies (fintech).*

aimed at ensuring the exchange of funds and the management and minimization of risks. Effective implementation of functions by financial institutions in the field of financial services creates the basis for economic development of the country. The biggest obstacles to the process of formation of the domestic financial system include the insufficient level of its integration into the global financial space and the low level of application of the latest information technologies. While the most important requirements for the effective functioning and development of financial services is its adaptation to the conditions of digitalization. There is an urgent need to develop and implement the latest theoretical and applied principles based on the study of leading trends in digitalization, in particular, the financial services sector.

The aim of the article is to clarify the impact of digitalization on the financial sector and identify its current trends in financial services in general and its individual components in particular.

## 1. Introduction

In modern conditions, the economic system is forced to constantly change under the influence of permanent transformational processes, which include both integration, globalization and aspects of digitalization. The sphere of financial services is a leading component of the national economy, the success of the functioning and development of which depends on the quality of life of the population and its well-being. The market of financial services occupies a central place in the process of ensuring effective commodity-money transformation, in which the commodity is financial resources. The sphere of financial services provides space for the free movement of capital between the spheres of the country's activity, as a result of which those who need additional sources of funding receive them, and those who have free, unused funds invest them in instruments. Also, the functioning of the financial services market includes the implementation of foreign exchange and insurance operations, which are

## 2. Literature review

The digitalization of financial services is an extremely important area of research. Among the scholars who have devoted their research to digitalization, information and innovation development of the financial services market, it should be noted: Abramova A. (2021) [1]; Buss K.-P. (2021) [2]; Cosmulese C. (2019) [3]; Bazilinska O. (2021) [4]; Kudlaieva N. (2021) [5]; Nitchenko K. (2021) [6]; Fedyshyn M. (2019) [7]; Goncharova N. (2020) [8]; Grigoraş-Ichim C. (2018) [9]; Ivanova N. (2016) [10]; Kublitska O. (2021) [11]; Avhustyn R. (2022) [12]; Kanungo R. (2021) [13]; Djakona A. (2020) [14]; Kholiavko N. (2021) [15]; Bazhenkov I. (2021) [16]; Kholod S. (2021) [17]; Kulkarni L. (2021) [18]; Niemand T. (2017) [19]; Pakhnenko O. (2021) [20]; Popelo O. (2021) [21]; Shkarlet S. (2017) [22]; Noga M. (2019) [23]; Zhuk O. (2018) [24]; Prokopenko V. (2018) [25]; Dubyna M. (2017) [26];

Tarasenko A. (2017) [27]; Tkalenko N. (2011) [28]; Tulchynska S. (2021) [29]; Zhou D. (2021) [30] and others.

The authors [30] investigate the impact of digitalization on productivity among leading companies in the field of financial services. Researchers analyze how the interaction of digitalization with business orientation, firm assets and organizational legitimacy affects the performance of leading companies in the field of financial services. The authors argue that their study identifies unforeseen factors that affect the digitization results of financial services companies, suggesting that they may benefit from digitization by reducing momentum.

The aim of the article [5] is to define and systematize the main features that are inherent in the classical model of obtaining credit services by clients of financial institutions. The authors identify the main promising areas for further transformation of the behavior of credit households, the lending process and changes in the paradigm of lending to financial institutions in the context of digitalization.

Researchers [13] have studied the impact of financial integration on Indian public sector banks and the socially alienated part of Indian society. The results of the study show that digitization barely contributed to financial reach, although banks tried to move in the right direction with better financial penetration, but at the same time, banks' financial performance showed significant improvements.

In the article [2], the authors argue that the actual driver of digitalization and the purpose of using digital technologies is an attempt to optimize and control market relations and competitive processes, including the provision of financial services. According to scientists, changes in the context of digitalization should not be interpreted as technological shocks, but rather as industry developments in systems rationalization.

Within the article [20], the authors argue that the study of universal integrated indices will provide an overview of the digitalization of financial services and a comparative international analysis. The authors proposed to assess the level of digitalization of financial services by three components: digital inclusion, financial inclusion and digital financial services.

Researchers [18] have shown that digital financial services offer unprecedented opportunities for the financial integration of vulnerable groups by overcoming barriers to costs, distance, transparency and providing financial services tailored to their needs. According to the analysis, the researchers say that the economic development of the state does not determine the gender disparity in digital financial integration, and the authors identified the main barriers to women's access to digital financial services.

The study [8] developed a method of forming a personal fund, in which citizens can keep their personal funds, and the state will provide quality services in case of illness. The authors analyzed the amount and structure of

financial resources for treatment. The developed proposals in the context of digitalization will reduce household costs, provide qualified, comprehensive, high-quality services that will not only alleviate the condition of the elderly with dementia, but also create guaranteed decent living conditions.

Firms that provide financial services and banks in particular, according to researchers [19], are facing a shift from traditional interpersonal services to online services. In the article, the authors argue that digital technology is increasingly becoming a modern standard and challenging traditional business models in the banking sector.

The article of scientists [21] analyzes foreign experience and features of the development of the latest innovative information technologies in the financial services market. The authors argue that in modern processes of digitalization, financial innovations play an extremely important role and contribute to economic development. According to the results of the study, it is emphasized that banking institutions need to focus their potential on identifying priority digital and innovative initiatives, taking into account current challenges and threats.

### 3. Methodology

The theoretical and methodological basis of this article are the scientific provisions of economics, finance, as well as research of domestic and foreign scientists and scholars in the field of financial technology, innovation and digitalization. During the writing of the article such general scientific methods of cognition as analysis, synthesis, generalization, comparison and systematization were used to identify leading trends in financial services and clarify the impact of digitalization, as well as understanding the essence of fintech and its role in shaping current trends. financial services in general, and banking institutions in particular; graphic method to visualize the stages of development of digitalization of financial services and the impact of digitalization on this sector and its achievements.

### 4. Results

One of the leading features of the current stage of economic development of the world is the digitalization of the financial services sector. Today, in order for financial services market participants to function effectively, they need to follow and follow the world's leading trends in the introduction of new technologies and become digital. Achieving this goal causes the transformation of classic business models into those that meet modern global challenges. Therefore, participants in the field of financial

services (insurance companies, banking institutions, credit unions, etc.) are changing and improving their activities under the influence of digital technologies.

Analyzing the digitalization of financial services and identifying the main trends in its operation leads us to the need to study the events that preceded its current state and consider the main stages of development (Fig. 1). It should be noted that under such conditions, the basis of this process is the dynamic introduction into the financial

system, its components, connections and relations of the latest achievements in the field of financial technology. Today, this area is one that is actively developing, based on the segment of financial services and introducing the latest technologies. Currently, digitalization is developing very intensively, radically affecting the formation of the value chain, competitive processes, the functioning of participants in the field of financial services.

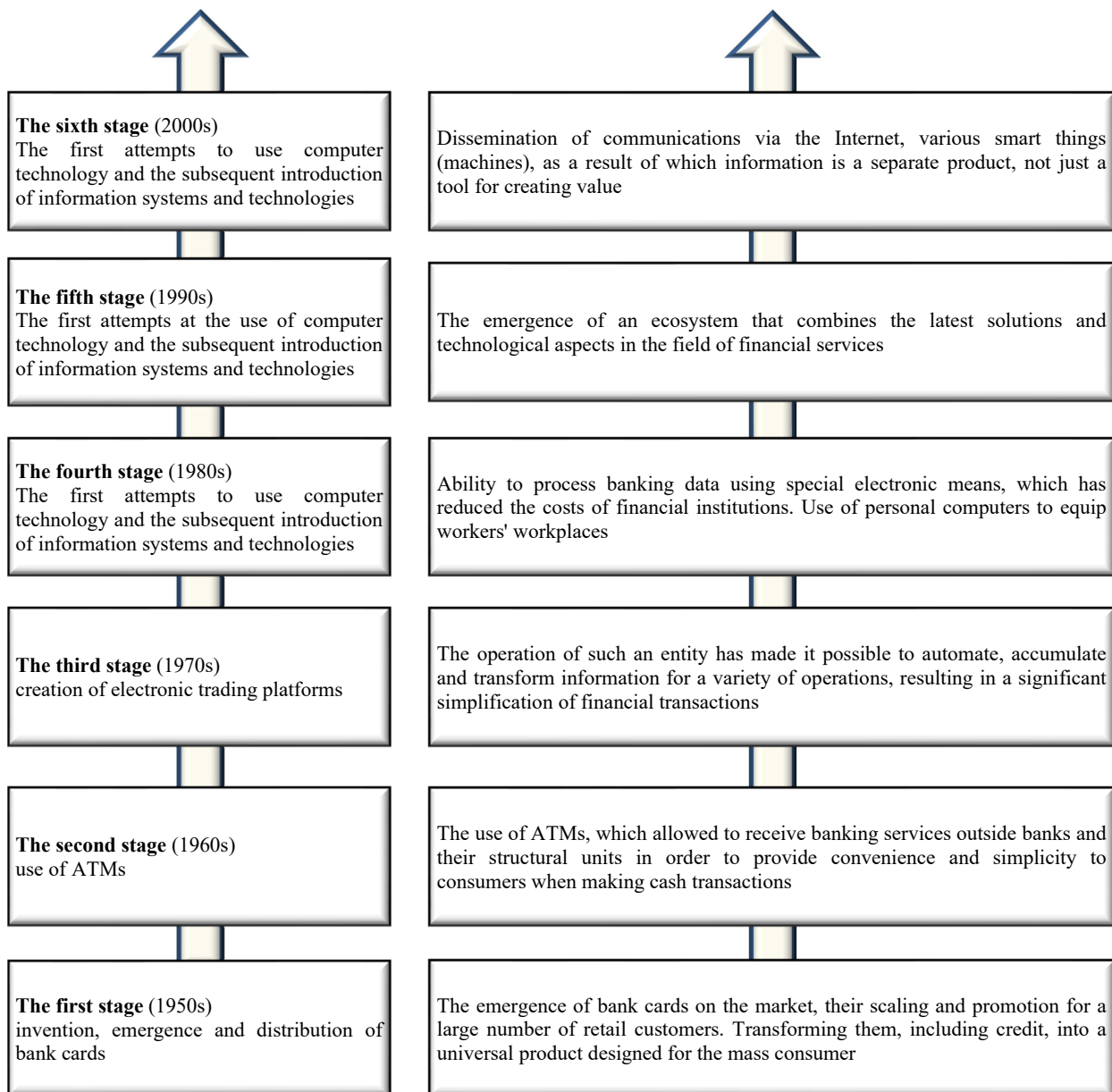


Fig. 1 Stages of development of digitalization of financial services  
Source: formed by the author on the basis of [31], [32].

The changes taking place in the financial sphere due to digitalization are characterized by a high degree of activity and capacity for development, which causes new requirements for the socio-economic system in general and its institutions in particular.

The modern global sphere of financial services is intensively applying the achievements of digital technology development. The financial services market should be considered one of the leading segments that uses digital innovations and disseminates them in the financial space. Therefore, in determining the trends in the

functioning of the financial services sector and its place in the economic system of the country, it is necessary to outline the impact of digitalization on its development and efficiency (Fig. 2). The sphere of financial services in modern conditions is formed under the strong and comprehensive influence of digital technologies, which permanently leads to the emergence of new forms and components of financial infrastructure, such as the digital currency market, neobanks, electronic money systems and more.

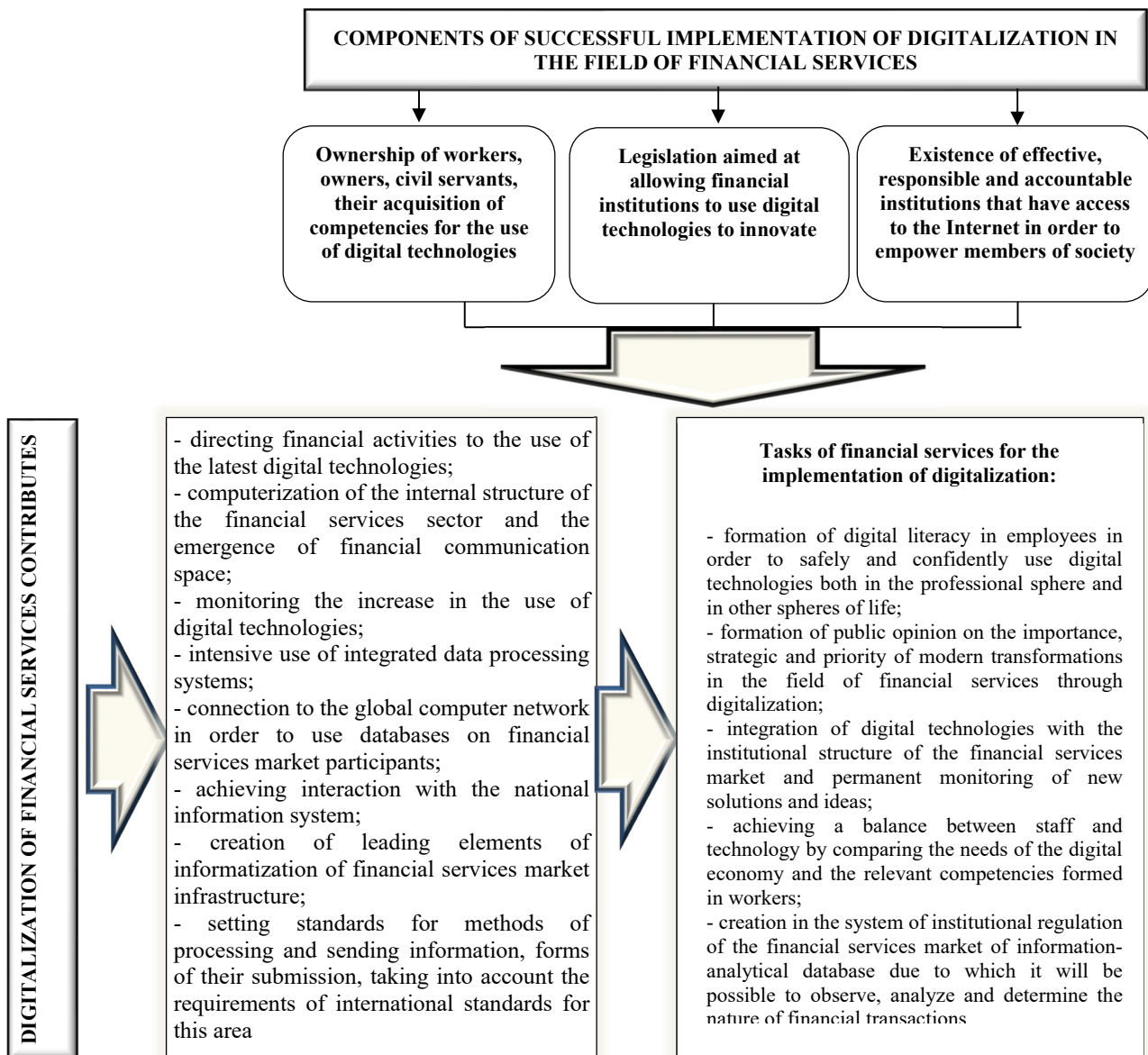


Fig. 2 The impact of digitalization on financial services and its success and efficiency  
 Source: generated by the author on the basis of [32-34].

In addition, the activities and development of financial services today are simply not possible without the introduction of measures to increase confidence in financial market participants. The lack of regulation of these aspects of the activities of financial institutions causes a violation of both their own interests and those of other market participants. In order to increase the level of trust in financial organizations and institutions, it is necessary to effectively implement planning and control functions, optimize risk management, openly post and provide information on financial condition, financial and economic, ownership structure, etc., which will generally improve corporate governance. In modern conditions, an important task of the world is to ensure a competitive financial services market. The domestic market of financial services is facing serious obstacles to its development due to the lack of consistency in the legal framework and principles of regulating the functioning of non-banking financial institutions.

It should also be noted that there is a possibility of a significant decline in financial services due to the difficulty of forecasting and controlling digital information, which is a powerful flow and volume of information generated by a huge number of anonymous users around the world. The process of digitalization is currently in its infancy, and therefore we can expect a large number of challenges that society will have to overcome to improve and reduce risks [35]. Thus, the positive consequences of the practical application of digital technologies in the field of financial services are the emergence of new organizations, cash management of financial institutions, easier access to financial services, improving their quality and further development and more.

The financial services sector is characterized by significant potential for the use of digital technologies. With a high level of information technology, there is a

simultaneous exchange of data between the subjects of the financial services market, which has a positive effect on the activities of financial institutions. The development of digitalization has helped to replace some of the functionality of large classical financial institutions with financial technologies (fintech) [36]. Fintech envisages the convergence of traditional financial services with mobile services, social networking services, aggregation and processing of large amounts of data, cloud technologies [37]. Thus, fintech is the interaction of finance and the latest technologies with the use of mobile applications. It should also be noted that fintech should be understood as innovative technologies used by financial institutions, government agencies, trading companies to meet customer needs for financial or administrative services and goods [38].

Digital technologies make it possible to automate a large number of segments of the financial sector, constantly developing new and effective products [39]. Fintech companies provide flexible service models [40] focused on contextual products that are tailored to individual consumer profiles. Digital developments in fintech offer a wide range of products that are tailored to the needs of small and medium-sized businesses, in particular, financing of payments and online trade, trade finance, etc. [41].

In modern conditions, fintech is developing dynamically, which is due, firstly, to the presence of a high level of public distrust in the traditional sphere of financial services; secondly, due to the existence of shortcomings of the traditional financial services market; third, through the commercialization of digital technologies and market entry of financial mobile and Internet services [42].

Taking into account the above, in Ukraine we can identify a number of areas of digitalization of financial services, based on the development of fintech (Table 1).

Table 1: Current trends in the digitalization of financial services in Ukraine based on the use of financial technologies

Direction	Essence	Result
<b><i>Simplify business management:</i></b>  - for small and medium business;  - for big business	Creation and development of technologies that turn smartphones into a ROS-terminal that allows you to receive payment for goods and services  Development followed by the introduction of innovative solutions and tools aimed at simplifying corporate payments	Expands and increases the percentage of non-cash payments  Reduction of the period of payments in compliance with all regulatory requirements; accelerating the approximation of domestic legislation to European regulation
Remote identification	Application of the BankID service, which will allow: to open bank accounts and get a loan online; remote customer identification; simplify to state and administrative services throughout Ukraine; reduce the share of paperwork in the administrative sphere; start online securities trading; registration and transfer of	Increasing the level of transparency and accessibility for new entrants. Intensification of development of new technological solutions and innovations

	mobile numbers between operators; increasing the number of various financial services, etc.	
<b>Open Banking</b> - start open banking;  - application of a number of new financial and non-financial payment services	Branching of funds transfer services: replacement of one service with eight new ones (six financial ones, in particular, money transfers, depositing funds and writing them off to and from a payment account, etc. and two non-financial services)  Providing reliable and secure access to funds and information on customer accounts for certain suppliers online	Revision and modernization of the systems of legislative regulation of the domestic market of financial services in the segment of payments and money transfers in order to increase competition and innovation in the market
Introduction of IBAN and ISO 20022	Ability to quickly, easily and conveniently identify payers and recipients of funds and the bank that serves them; acceleration of this process prevention of errors in the details of documents by reducing them in the settlement documents	Reduction of details and simplification of the process of registration of settlement documents. Improving the level of customer service and the level of payment automation, increasing the functionality of payment tools

Source: formed by the authors on the basis [43].

The most active participants in the financial services market, which attract innovative means of digitalization, are banking institutions and insurance companies. This can be explained by their desire to be in line with customer requirements, which will ultimately help increase their assets and ensure the stability of development. Today, the digitalization of banking institutions is aimed at improving internal processes in order to achieve a high level of positive impact on relationships and interaction with customers. Among the current leading trends in the digitalization of banking institutions are the following:

- introduction and increase of the level of automation of operational processes, which allows to quickly identify certain violations and deviations of such processes, reduce losses from fraudulent actions and save money;
- introduction and development of digitalization of operational-accounting and operational operations, productive processes, which will reduce costs, reduce the cost of products, accelerate their use and transformation, closer to compliance with regulatory requirements.
- development of the system of corporate payments through investment in digitalization of electronic payment technologies;
- application of accelerated process analytics, which provides an opportunity to increase the level of accuracy of the applied system of creditworthiness assessment, increase the efficiency of risk management, which reduces costs and increases the profitability of lending.

The dynamic and intensive development of digital technologies and innovations in the field of financial services leads to the rapid transformation of the classical financial environment in general, and banking, in particular, in the new space. The digitalization of this space is changing the purpose of banking institutions and their IT infrastructures, turning them into a regulator of financial transactions. New technological solutions in the field of financial services are aimed at ensuring a high

degree of security and reliability of the process of data and money exchange, given that progressive financial institutions aim to attract and integrate fintech with their business processes.

#### 4. Conclusions

Thus, digitization measures have a positive effect on the financial position of financial institutions and contribute to faster return on investment through the combination of objectives. The highest level of competition is observed in the banking sector, where the leading participants are actively looking for new solutions and ideas and are rapidly implementing new areas of digitalization. In such a situation, banking institutions need to direct their financial, material and human resources to the long-term achievement of both strategic and tactical goals, which are formed under the influence of environmental variability. Today, technological services are the determining factors and tools for transforming business strategies and obtaining successful financial results. Intensive activity of financial institutions in this direction will help increase their competitiveness and popularity among customers, while inaction - a way to lose ground with the subsequent disappearance from the market. Against the background of the positive effects and potential of digitalization, the risks and threats of this process, which are associated with the imperfection of the legal framework for the regulation of financial technologies, in particular, cybersecurity and information storage, cannot be ignored. An important point is to understand the need for innovative points of economic growth in general for the stable development of the domestic financial services sector.

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