The processes of formation and development of the digital economy of Ukraine are considered, the differences and peculiarities of its functioning and the impact on the competitiveness of the national economy are being studied. It is determined that digitalization of the country is not a simple transition to e-government, but a full-scale introduction of digital technologies in all spheres of society. The basic moments of the digital strategy of the country are defined, problems of digitization of industries, in particular agro-industrial complex, and ways of their solution are outlined. The purpose of the article is to study the theoretical foundations and modern applied aspects of digitalization of the Ukrainian economy by defining its current state and prospects for the introduction of information and communication technologies into the practical activity of domestic enterprises.

**Key words:** digital strategies, agribusiness, digital transformation, 4P, 7P, precision farming, blockchain, rural infrastructure, education, innovation

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### THEORETICAL FOUNDATIONS OF DIGITAL FINANCIAL SERVICES

Y. V. ULYANYCH, PhD in Economics

K. F. ULYANYCH, PhD in Economics

Y. A. TSYMBALIUK, PhD in Economics

**B. S. HUSAR,** *PhD in Economics* 

**M. O. DYACHENKO**, *PhD student of the third (educational and scientific) level of higher education (doctor of philosophy)* 

## **Uman National University of Horticulture**

В статті розглянуто питання теоретичних основ цифрових фінансових послуг. За даними Google Trends проаналізовано тенденцію до перевищення популярності запитів за темою «цифрові фінансові послуги» над «мобільними фінансовими послугами», встановлено, що нині необхідною складовою цифрових фінансових послуг є фінтех компанії, а самі цифрові фінансові послуги надають нові гравці фінансового сектору, такі як: фінтех-фірми; великі технологічні компанії; розвинені в цифровій сфері традиційні фінансові установи.

**Ключові слова**: фінансові послуги, цифрові продукти, фінтех, технології, фінансові рішення, фінтех-компанії.

**State of the problem**. We live in an era of innovation. Technologies that were considered fiction yesterday are now part of our reality. Relatively recently, humanity was getting used to the advantages of payment cards, and now nine out of ten transactions are made without cash. Almost half of Ukrainians are ready to give up cash in the next five years, and 53 % of them are ready to do so in the next two years. Therefore, the issue of developing and improving digital financial services is currently relevant for consideration.

Analysis of recent research and publications. Many researchers understand digital financial services too narrowly and in a limited way, given the growing trend of their use as the main product of fintech companies worldwide.

The vast majority of scholars and experts consider digital financial services exclusively in the context of financial inclusion and low-cost access to financial services in developing countries.

For example:

- L. Perlman argues that "digital financial services are a relatively new, low-cost means of digital access to transactional financial services, which is one of the main solutions to promote financial inclusion and provide much-needed affordable access to financial services in developing countries" [1];
- L. Meledy and R. Buckley call "digital financial services key financial solutions for improving financial inclusion in poor countries" [2];
- Emphasizing the need to support consumer demand for digital financial services, O. David-West, N. Iheanacore and I. Kelikume argue that "digital financial services provide services to the poor using advanced skills, digital platforms and emoney models" [3];
- according to N. Ran, S. Luthra, H. Rao, "digital financial services can offer a range of smart and secure banking services for the poor in developing countries, taking into account innovative technologies, including mobile phone-based financial services, digital platforms and e-money models" [4];
- H. Haider notes that digital financial services are "more convenient and accessible than traditional banking services, enabling low-income and poor people in developing countries to save and borrow within the formal financial system, generate financial returns and improve their consumption" [5].

**Research methodhology**. The study uses general theoretical methods. The system method of technology was used to study the theoretical aspects of digital financial services. The analysis method was used to study the most popular information about digital financial services. Using the abstract and logical method, conclusions and proposals for the introduction of digital financial services in modern conditions are made. The study is aimed at an in-depth study of the theoretical foundations of digital financial services in modern conditions.

Research results. The total number of fintech companies in the world has already exceeded 28 thousand. Over the past decade, they have raised more than \$850 billion. US dollars and received 143 billion US dollars in revenue. US dollars in revenue. One hundred and fifty-seven fintech companies were included in the list of unicorn companies with a total market value of USD 1.8 trillion. The list includes a total market value of usd 1.8 trillion. The success of fintech companies is a result of their growing popularity among financial services consumers who expect simplicity, accessibility, and security from digitalization. At the end of 2019, every fourth consumer in the world used at least one digital financial service, and 96 % of consumers had a general understanding of the capabilities of fintech companies. Almost a quarter of consumers are ready to use a voice financial assistant, 16 % of consumers would like to make payments in cryptocurrency, and 13 % would entrust their purchases to smart home appliances. However, despite the widespread use of the category of "digital financial services" and the obvious importance of these services in financial relations in the context of the digital economy, the theoretical essence of digital financial services

remains insufficiently disclosed and proven. Emphasizing the role of digital financial services as a way to increase financial inclusion, researchers often, especially in the early stages of research (2000–2015), identified this category with mobile money or mobile financial services as the process of using a mobile phone to access financial services and perform basic financial transactions [6]. The reason for the identification was the success and evolution of money transfer services from mobile operators. For example, in developing countries, the use of mobile money has reduced household expenditures on money transfers and social assistance.

K. Batista and P. Vicente in Mozambique found evidence that the marginal willingness to remit was increased by the availability of mobile money. They found that mobile money reduces people's overall transaction costs while providing increased freedom, flexibility, and privacy. A study conducted by J. Wong in rural Cambodia found significant time advantages of mobile transfers, their security and convenience for rural microentrepreneurs. Thus, researchers have found that mobile financial services generally contribute to increasing well-being by "smoothing out" moments of unexpected drops in income, increasing the sense of security of vulnerable populations, improving financial inclusion and economic empowerment of women in developing countries, reducing payroll administration costs, expanding access to various types of financing, and stimulating the growth of microenterprise profits [7].

With the expanding availability and range of digital technologies, we are witnessing a gradual transition to the category of "digital financial services". This is confirmed by Google Trends data, which shows a clear trend of exceeding the popularity of queries on "digital financial services" over "mobile financial services" since 2016 (Fig. 1).

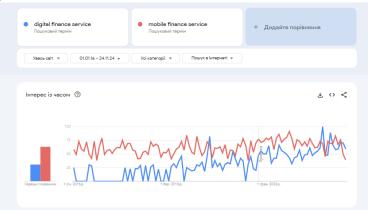


Fig. 1. Comparison of the number of search queries for "digital financial services" and "mobile financial services" in 2016-2023

Source: generated by Google Trends

In 2019, their popularity was 1.5 times higher. The top 10 countries in terms of the number of searches for digital financial services include Zambia, Singapore, Australia, the Philippines, Indonesia, Vietnam, Germany, Brazil, the United Kingdom, and India. In 2016, the Alliance for Financial Inclusion proposed a glossary of digital financial services terms. The glossary describes digital financial services as a wide range of financial services accessed and delivered through digital channels, including payments, credit, savings, remittances, and insurance. The glossary defines digital

channels as the Internet, mobile phones, smartphones, ATMs, POS terminals, NFC devices with contactless payment support, chips, electronic cards, biometric devices, tablets, phablets, and any other digital systems. Conceptually, mobile financial services were recognized as part of digital financial services [8, p. 128].

In the glossary of terms on digital financial services, published in 2018 by the International Telecommunication Union, digital financial services are defined as digital services that "include various methods of electronic storage and transfer of funds; allow making and receiving payments; borrowing, saving, insuring and investing; and managing personal or business finances" [9].

Fintech companies that "provide software, services and products for their implementation, based on innovative approaches and technologies" are defined as a necessary component of digital financial services. Similarly, the connection between fintech companies and digital financial services can be traced in the official report of the World Bank [10], which defines digital financial services as any "financial services and services that rely on digital technologies for delivery and use by consumers (web, mobile, cloud services, machine learning, digital identity, and software interfaces (APIs))". Digital financial services are provided by new players in the financial sector, including: fintech firms (digital banks, P2P and online lending platforms, other tech companies); large technology companies (mobile network operators, e-commerce platforms, social media providers, online search engines); and digitally advanced traditional financial institutions (banks, insurers, and asset management companies). Thus, there is a gradual evolution and expansion of the essence of digital financial services from the simplest transactional operations of transferring funds via mobile phone to the integrated use of digital technologies in the provision of a wide range of financial services.

In contrast to the similar category of "fintech", which appeared and became widely used primarily in the developed world, the use of the category of "digital financial services" began in developing countries that did not have an extensive network of financial institutions (mainly in Africa, South Asia, and South America). With the development of the range of digital technologies used and the emergence of various business models for the application of financial technologies, we can observe the acceptance of the essence of digital financial services as an important component of the activities of fintech companies in both developing and developed countries.

Conclusions. Thus, digital financial services are a part of finance and a product of the fintech component of the financial sector, provided through various forms of ecommerce using modern information and digital technologies to meet the needs and values of different categories of people, depending on their gender, financial status, place of residence, social status, and type of employment. Digital financial services differ significantly from traditional financial services. Based on modern digital technologies, they are significantly different in terms of their transformational value and role in shaping new approaches to financial interaction between people, businesses, and the state. Digital financial services represent a combination of key characteristics of digital, financial and traditional services, products and services provided by fintech companies as a result of the synergy of business models of the digital economy,

network and information and communication technologies and the corresponding development of social and economic relations within the globalized world and the processes of formation of the information society.

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#### Annotation

## Ulyanych Y. V., Ulyanych K. F., Tsymbaliuk Y. A., Husar B. S., Dyachenko M. O. Theoretical foundations of digital financial services

The article discusses the theoretical foundations of digital financial services. According to Google Trends, the author analyzes the tendency of exceeding the popularity of queries on "digital financial services" over "mobile financial services", and establishes that fintech companies are now a necessary component of digital financial services, and digital financial services themselves are provided by new players in the financial sector, such as fintech firms (digital banks, P2P and online lending platforms, other tech companies); large technology companies (mobile network operators, e-commerce platforms, social media providers, online search engines); traditional financial institutions (banks, insurers and asset management companies) developed in the digital sphere.

It is noted that today there is a gradual evolution and expansion of the essence of digital financial services from the simplest transactional operations of transferring funds via mobile phone to the integrated use of digital technologies in the provision of a wide range of financial services. It is summarized that digital financial services

represent a combination of key characteristics of digital, financial and traditional services, products and services provided by fintech companies as a result of the synergy of business models of digital economy, network and information and communication technologies and the corresponding development of socio-economic relations within the globalized world and the processes of formation of the information society.

**Key words:** financial services, digital products, fintech, technology, financial solutions, fintech companies.

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# КОНЦЕПЦІЯ РОЗВИТКУ ВІТЧИЗНЯНОГО РИНКУ БАНКІВСЬКИХ ПОСЛУГ

П. К. БЕЧКО, кандидат економічних наук

С. А. ВЛАСЮК, кандидат економічних наук

К. М. МЕЛЬНИК, кандидат економічних наук

В. В. ШЕІН, здобувач третього (освітньо-наукового) рівня вищої освіти (доктор філософії)

Уманський національний університет садівництва

Розглянуто розвиток ринку банківських послуг в Україні, оскільки він є важливим чинником стабільності економіки та інтеграції країни у світову фінансову систему. Встановлено, що наразі концепція розвитку вітчизняного ринку банківських послуг передбачає створення сучасної, прозорої та конкурентоспроможної банківської системи, здатної забезпечити ефективне управління фінансовими ресурсами та сприяти економічному зростанню. Запропоновано основні напрями розвитку ринку банківських послуг, які включають впровадження цифрових технологій, розвиток інноваційних продуктів та послуг, а також підвищення фінансової інклюзії серед населення. Також велика увага приділяється реформуванню регуляторного середовища та адаптації банківського сектора до міжнародних стандартів, що сприятиме підвищенню довіри інвесторів та безпеки фінансових операцій.

**Ключові слова:** фінансові ресурси, банківські послуги, банківська установа, банківський продукт, факторинг, фінансовий лізинг, хеджування ризиків клієнта

Постановка проблеми. Ринок банківських послуг в Україні має критично важливе значення для забезпечення економічної стабільності, підтримки підприємницької діяльності та сприяння фінансовій інклюзії населення. Проте, розвиток цього ринку стикається з рядом серйозних проблем, які потребують системного вирішення для створення конкурентоспроможного та надійного банківського середовища. Основні проблеми, що стримують розвиток вітчизняного ринку банківських послуг, включають: високий рівень кредитних ризиків та проблемних активів; низький рівень довіри населення та інвесторів до