УДК 330.46

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Innovative management of regional business: financial technologies and IT tools

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***Abstract**. The author's opinion on the possibilities of innovative management of regional business through the use of the latest financial technologies and IT tools is given. The regional status of CBDC implementation and the projected cost of embedded financing systems are analyzed. The authors provide options for using artificial intelligence in the personalization of financial management. Directions for making payments and using innovative control levers thanks to built-in services are offered.*
Keywords: innovative management, financial technologies, IT tools, regional business, acquired finance, FinTech solutions.

Modern business space cannot be imagined without information technologies (IT), which are of key importance in optimizing business processes. The range of IT tools used to manage regional business almost completely covers all the needs of the business environment: from the ability of business entities to implement large-scale strategies aimed at accelerating business processes and reducing operating costs to influencing the quality of products or services and increasing overall efficiency business entity. The introduction of IT technology into every aspect of business: from the automation of accounting operations and tax payment to the management of professional development and human capital is a finding of business mundanity.

At the same time, a special place in the IT system of business management tools is occupied by financial technologies (FinTech), especially taking into account the aspect of regionalism and local features of production chains. These technologies not only facilitate financial transactions, but also provide greater flexibility, innovation and competitiveness of regional businesses in a global context.

On a global scale, the financial services industry is highly profitable, generating about 12.5 thousand dollars. US annual income and approximately 2.3 thousand dollars. US net profit per year with an average rate of return of 18% [1]. However, according to Deloitte, despite the profitability of the financial sector, customer satisfaction with financial services, including insurance, traditionally ranks low compared to other industries [2]. But FinTech organizations have significantly higher customer loyalty rates than traditional organizations in this regard.

Based on such trends, 2024 promises to be the year when FinTech organizations will establish strategic partnerships with traditional banks to revolutionize the industry. Driven by the innovative spirit and disruptive potential of FinTech for traditional banks, banks recognize the transformative power of this collaboration, which spans a range of initiatives from ready-made FinTech solutions to the joint development of cutting-edge technologies. FinTechs provide flexibility, creativity and a deep understanding of customer needs, while banks provide access to their established infrastructure, regulatory expertise and vast customer base. This synergy represents a win-win situation, allowing both parties to change the future of the financial landscape by offering an enhanced customer experience, simplified processes and innovative products.

Among the areas of FinTech solutions that can significantly affect the innovative management of regional business, the following can be distinguished:

1. Recognition of digital currencies by central banks. Central bank digital currencies (CBDCs) are gaining popularity and represent a sharp contrast to decentralized, untraceable cryptocurrencies such as Bitcoin. CBDCs are controlled by the government just like traditional currencies. Several countries around the world have already implemented CBDCs, and the European Union, Canada, Brazil, and the United States are actively considering launching their own CBDCs. The National Bank of Ukraine indicated its intention to implement the electronic hryvnia as early as 2017 [3].

As of June 2023, 11 countries have implemented central bank digital currencies (CBDCs), another 53 countries are in advanced planning stages, and 46 are researching the topic. According to the Atlantic Council [4] for 2021-2023, the transition between pilot projects and implementation of CBDC is significant. Figure 1 shows the regional display of CBDC implementation status as of December 2023. Ukraine is among the 21st countries where CBDC implementation is undergoing a pilot testing phase.

Based on this, FinTech can become a tool for the use of CBDC through the implementation of innovations in the following areas:

1) Infrastructure and security: creation of secure digital wallets to store CBDC; use of multi-factor authentication; validation for CBDC blockchains.

2) Market data and analytics: access to real-time sources of CBDC market data; development of data analysis tools adapted to CBDC risk assessment.

3) Compliance with regulatory requirements and transaction monitoring: ensuring compliance with KYC, AML rules; promoting transparency of requirements and obligations for CBDCs.

Therefore, for the banking sector, the key to its own development is the formation of alliances between classic banks and FinTech organizations, which will allow traditional institutions to implement digital transformation and remain relevant in the financial sector.

2. Decentralization and regionalization of financial platforms. The expansion of decentralized finance (DeFi) platforms enables direct access to financial services by eliminating traditional intermediaries. DeFi initiatives continue to improve, diversifying their offerings to include lending, borrowing and insurance services. As they evolve, they will attract a wider audience and disrupt conventional financial system. That is, the involvement of FinTech organizations in DeFi will accelerate the growth and adoption of this innovative financial ecosystem with a regional scaling effect. Collaboration between FinTech organizations and DeFi projects has the potential to change the future of finance by creating a more open, inclusive and efficient financial system.

3. Spread of personalized financial services based on artificial intelligence (AI). Financial services are becoming highly personalized thanks to advances in artificial intelligence and data analytics. FinTech organizations use intelligent algorithms to analyze individual spending patterns, risk profiles and investment preferences. This capability allows them to provide personalized budgeting, savings and investment recommendations that meet each person's unique preferences.

Options for the use of artificial intelligence (AI) in the personalization of financial management include:

- personalized financial advice: AI-powered assistants analyze individual data and financial goals to provide personalized investment, savings and financial management recommendations. For example, Youchoose and Qubit use an e-commerce recommendation engine that tracks user behavior and suggests relevant products.

- data management: AI analyzes financial models, even with imperfect data, to form forecasts and optimize decision-making. This can be used to predict product preferences and adapt regional product supply strategies accordingly.

- digital assistants: Chatbots and AI-powered assistants provide personal financial advice 24/7, easing the burden on support teams and helping users track spending, achieve goals and control expenses.

- customer interaction: Natural Language Processing (NLP) enables chatbots to understand customer requests and provide accurate responses, simplifying interaction adaptation.

ClearSale and DataDome are examples of many such AI-based tools. This FinTech trend is especially important in today's increasingly complex cyber threat landscape.

4. Development of built-in financial support functions. The global COVID-19 pandemic has created sustained global and regional trends in the rapid growth of embedded finance, also known as embedded banking. However, now it is not only about banking services, but this FinTech trend implies that non-financial economic entities (for example, online shopping platforms, travel organization services, delivery services) add financial services directly inside their own platforms.

The forecast of Future Market Insights speaks of a cumulative average annual growth rate of the field until 2032 in the amount of 16.4% [5] and Fintech Switzerland predicts the achievement of the total market value of embedded financing in the amount of 7.2 trillion dollars (Figure 1).

Given the trends, sectors such as retail, e-commerce, healthcare and education are predicted to see significant growth in the adoption of embedded financial solutions due to the need for convenient and affordable financial services. In addition, the diversification of embedded finance into sectors such as real estate, mobility, travel and energy highlights the expanding scale and versatility of embedded finance in addressing diverse financing needs across industries and regions.

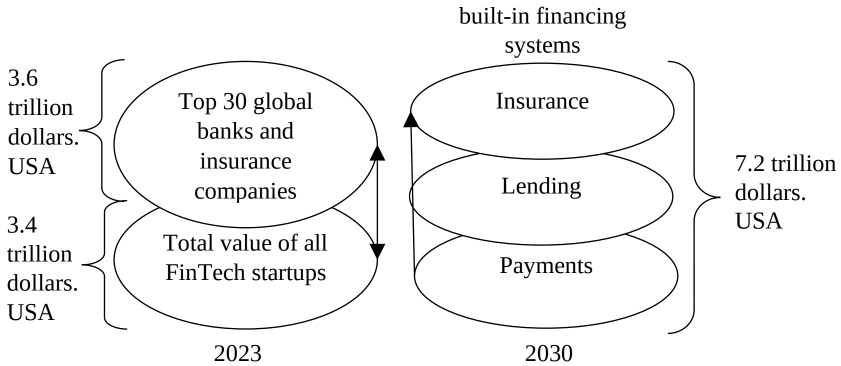

Figure 1. Projected cost of embedded financing systems
Source: developed by the authors based on [6]

A bright representative of the built-in financing system is BNPL (Buy-Now-Pay-Later) services. Appropriate tools transform a business from the status of just one of the bank's clients into a full-fledged partner with mutually beneficial cooperation conditions. For example, the concept of building such interaction based on the BaaS system. Under the BaaS system, the business entity gets access to a full-fledged financial infrastructure with BNPL, loans, insurance and other related services, for which it pays a payment commission. Basically, classic banks become a financial instrument of development for a non-financial platform.

According to Fig. 1 market of embedded financial solutions will reach $7.2 trillion by 2030. This will exceed the combined value of FinTech startups and the top 30 global banks and insurance companies. This explosive growth is due to the synergistic effect of a combination of FinTech trends, in particular, the development of open banking, the introduction of mobile wallets and the growing demand for personalized financial services. These tools ensure the full integration of financial services into non-financial platforms, that is, their use is the basis of innovative business management, both on a global and local scale.

Thus, the use of embedded financial services in every key sector of the national economy will lead to the fact that retail trade and e-commerce will become the largest segments of the FinTech services market, accounting for 49% of the entire market by 2030. Health care, as a separate promising sector, also takes the leading place in the introduction of financial business management services with a potential sector of 17%.

So, despite the current fluctuations, it is predicted that by 2030 the annual income from FinTech will reach 1.5 trillion USD. The joint efforts of FinTech companies and traditional banks are creating positive synergies, changing the future of financial services by offering improved customer experiences, simplified processes and innovative products. Based on this, the global and regional trends of increasing the number of business entities integrating financial services into their offers are undeniable. The effectiveness of the innovative management of the regional business will be based on the partnership of classic financial organizations with an experienced digital provider, which will create advantages and prospects of opportunities, while at the same time leveling the associated risks.

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