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## TRENDS AND FEATURES OF FINTECH MANAGEMENT PROCESSESEVOLUTION DURING THE GLOBAL PANDEMIC

### ТЕНДЕНЦІЇ ТА ОСОБЛИВОСТІ РОЗВИТКУ ПРОЦЕСІВ УПРАВЛІННЯ FINTECH ПІД ЧАС ГЛОБАЛЬНОЇ ПАНДЕМІЇ

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*Макаренко А.Б., Татаринцева Ю.Л., Кочетова Т.І. Тенденції та особливості розвитку процесів управління FinTech під час глобальної пандемії. Науково-методична стаття.*

Функціонування національної економіки в ринкових умовах передбачає включення країни у світові процеси управління фінансовими технологіями. У статті узагальнено ключові підходи до розуміння еволюції використання фінансових технологій в сучасних умовах під час світової пандемії. Доведено зростаючу роль впливу фінансових технологій на усі сфери життя та економіки. Зроблено висновки з результатів дослідження, щодо переваг використання фінансових технологій, зокрема під час COVID.

*Ключові слова:* управління, фінансові технології, фінанси, тенденції, фінансова стратегія

*Makarenko A.B., Tatarintseva Yu.L., Kochetova T.I. Trends and Features of FinTech Management Processes Evolution During the Global Pandemic. Scientific and methodical article.*

Nowadays functioning of the national economy demands the country inclusion in the global processes of financial technology management. This article summarizes the key approaches to understanding the evolution of the use of financial technologies during the global pandemic. The growing influence of financial technologies on all spheres of life and economy is proved. Conclusions are drawn from the results of the research on the benefits of financial technologies application, in particular during the COVID pandemic.

*Keywords:* management, financial technologies, finance, trends, financial strategy

**T**oday, new technologies (digital, telecommunications, biometrics, etc.) are restructuring the financial services industry, actively displacing traditional players and business models. Integration of new financial solutions allows to change the structure of consumption, reduce the cost of certain functionalities (customer base processing, loyalty programs, etc.), increase the efficiency and quality of business processes (targeting, scoring, etc.), and significantly affect sustainability, profile business, etc. As a result, the industry of financial technologies (fintech) is gradually becoming an independent intensively developing sector of the modern economy. Thus, dynamically developing segment at the intersection of financial services and technology such as Fintech is a topical area of research.

#### **Analysis of recent research and publications**

Research on fintech management processes is presented ed in the works of Douglas W. Arner, János N. [1], Chris Brummer and Yesha Yadav [2], Howell E. Jackson [3], Fajar, M [4], Nader Alber & Mohamed Dabour [5]. But these issues need more detailed coverage.

#### **Unsolved aspects of the problem**

In recent years, there has been a growing interest in financial technology (FinTech). This is a modern financial phenomenon, characterized mainly by the intensive use of communication technologies, some call it a network

economy. The area of financial technology includes a wide range of financial services that benefit from the rapid development of technology, including payments, clearing and settlements, followed by loans, deposits and capital raising services. This forces many traditional financial institutions, such as banks, to adapt their business models to changing trends. Yet still unresolved issue is the lack of complete list of trends in the development of fintech management processes during the global pandemic.

*The purpose of the research is to identify trends and features of the development of fintech management processes during the pandemic.*

### **The main part**

FinTech is an industry made up of companies that use technology and innovation to compete with traditional financial institutions such as banks and financial intermediaries. Currently, both numerous technology start-ups and large established organizations that try to improve and optimize the financial services provided are classified as fintech.

In the modern world there is an urgent need to study new technologies. One of these is fintech. Over the past decade, this issue has been studied by many scientific researchers. One of them is Douglas W. Arner. He said that "FinTech," a contraction of 'financial technology,' refers to technology enabled financial solutions. It is often seen today as the new marriage of financial services and information technology. Since 2008, a new era of fintech emerging in both the developed and developing world. This new era is defined not by the financial products or services delivered, but by who delivers them and the application of rapidly developing technology at the retail and wholesale levels. This latest evolution of fintech, led by start-ups, poses challenges for regulators and market participants alike, particularly in balancing the potential benefits of innovation with the possible risks of new approaches. We analyze the evolution of Fin Tech over the past 150 years, and on the basis of this analysis, argue against its too-early or rigid regulation at this juncture [1].

Another person who has made a great contribution to the study of this issue is Chris Brummer, who talked about innovation time and methods of developing the economy through fintech. He also raised the topic of Bitcoin in the international market. He said that whether in response to robot advising, artificial intelligence, or cryptocurrencies such as Bitcoin, regulators around the world have made it a top policy priority to supervise the exponential growth of financial technology ("fintech") in the post-crisis era. However, applying traditional regulatory strategies to new technological ecosystems has proved conceptually difficult. He pointed a new theoretical framework for understanding and regulating fintech by showing how the supervision of financial innovation is invariably bound by what can be described as a policy trilemma. Specifically, I argue that when seeking to provide clear rules, maintain market integrity, and encourage financial innovation, regulators have long been able to achieve, at best, only two out of these goals [2].

Howell E. Jackson. studied how fintech affects firms themselves. He highlighted the topic "The Nature of FinTech Firm". For years, his article has inspired corporate theorists and earned a place in the pantheon of corporate law scholarship. In this article, "The Nature of the Firm" lead to explore the fintech revolution and the supervisory challenges that aspects of this revolution have posed for regulatory authorities. Several of the examples were discussed concern the distinction between activities located within a firm and those arranged through market transactions often supplied through new and specialized fintech entities. Another explore was about the changing nature of what it means to exercise managerial discretion in an era of learning and artificial intelligence [3].

One example of a market or environmental change that occurred is the pandemic Covid-19 (Coronavirus Disease 2019). Pandemic is a plague that spreads quickly and simultaneously with a wide area. Covid-19 is a virus originating from Wuhan City in China that spread very quickly throughout the world. Even lowering the economies of countries through which the virus.

Due to this resource to minimize the risk that companies fintech need to think about and make whatever efforts can be done in a situation like this. With the current situation, the executive at the company fintech must immediately implement new policies on the company [4].

Next paper investigates the opportunities of growth under restrictions of social distancing for FinTech. This has been conducted on 10 countries (United States, United Kingdom, Egypt, United Arab Emirates, Saudi Arabia, Japan, South Korea, Italy, India and Nigeria) during the period from March to June 2020. Results indicate that social distancing may affect digital payments. This has been supported for retail and recreation, grocery and pharmacy, transit stations and workplaces, without any evidence about significant effects for parks and residential [5].

Thus, every year the British consulting company KPMG and the Australian venture fund H2 Ventures compose the FinTech 100 rating. The top five leaders in the IDC FinTech rating have not undergone significant changes over the past year. Companies from the USA and India hold the leading positions in 2018. The palm still belongs to the American FIS (Florida) [6].

The urgency of the problem lies in the fact that fintech is a dynamically developing segment at the intersection of the financial services and technology sectors, in which technology startups and new market participants are applying innovative approaches to products and services currently provided the traditional financial services sector. Thanks to this, the fintech segment is rapidly developing, disrupting the usual order of things in a traditional chain cost. Indeed, based on the estimates companies included in the DeNovo platform in 2020 the amount of funding for startups in the segment.

FinTech has more than doubled since the previous year, reaching USD 12.2 billion (in 2018 this figure was \$ 5.6 billion USA). FinTech companies using latest technologies and new directions of activity redraw the picture of competition, blurring the boundaries, established among the players in the financial services sector [7].

As many people in the world know, a big COVID-19 epidemic began in 2020. The global economy has suffered and business tactics have changed. The purpose of my article is to study the impact of the pandemic on one of the emerging fintech platforms. There are different opinions about the development of fintech during the coronavirus period. According to some sources, people write about the recession, while others say about the increase in demand for fintech technologies. I propose to consider both options and draw general conclusions about this.

First vision is the viral crisis has negatively impacted not only traditional banks, but also fintech companies. At the same time, the pandemic stimulates the development of digital service channels and related services – this will increase the need for investments and may lead to an increase in their volume at the end of the year.

Global investments in fintech decreased in the first half of the year by more than a third compared to the same period in 2019 – to \$ 25.6 billion, as follows from the data of the KPMG Pulse of FinTech report [8].

The decrease in investment volume by the absence of large transactions this year, as it was in 2019. For example, the purchase of the British payment processor WorldPay by the American FIS was \$ 42.5 billion, and the acquisition of the payment system First Data by the financial technology provider Fiserv was worth \$ 22 billion.

At the same time, the activity associated with M&A in the 1st half of 2020 remains very high, experts emphasize. The pandemic has seriously changed customer behavior – they have increased their use of digital and online channels. Companies have begun to actively develop these areas, which will stimulate the growth of investments in fintech. So, in the first half of the year, Stripe raised \$ 850 million, Chime – \$ 700 million, and Revolut – \$ 500 million.

It will be easier for established payment systems to raise funds than for startups. The last 2 half of the year can bring serious problems – due to the situation with the pandemic and the depletion of previously raised funds. In this case, the market can be consolidated, including through "problematic mergers and acquisitions", Bloomberg quotes the words of Kebbie Sebastian, managing director of the consulting firm Penser and a former head of PayPal. However, new mega-mergers are not excluded, the authors of the report note.

The crisis also affected the industry leaders. So, Monzo reported a twofold increase in losses in the 2019-2020 financial year – up to \$ 151.6 billion. Neobank explained this by the loss of commissions and income from cash deposits associated with the viral crisis.

FinTech companies' user-friendly applications allowed them to attract clients that banks did not serve enough – students or immigrants, explains Bloomberg. But most of them preferred to open free basic accounts by paying a cash withdrawal fee. As a result, neobanks received millions of non-profitable clients. "The days of empty checkbooks for building brands and a customer base are a thing of the past", the agency quoted Tim Leuven, CEO of London-based venture capital firm Augmentum FinTech, is saying. He believes that investors will now focus on profit and income stability.

A Monzo spokesperson said the company will continue to expand its premium products. Revolut pointed to an increase in revenues of about 180% in 2019 and an increase in the number of customers from 3.5 million to almost 13 million, noting that it expects profit in the future. N26 co-founder Maximilian Tayental explained that the losses reflected "a period of extremely rapid growth" [9].

Before the opportunity moment knock, lone a special behave of fintech were break allay or bankable, which could amaze a count for the aspect. The jotter of worldwide fintech give outside further already ablated harshly during the archetypal cantonment of 2020 - in February, deals were buff 22% on the caducity already.

This drop is highly likely to deepen in the coming months. Added to this, while the fintech ecosystem has proved to be transformative for finance, demand for its services is dependent on economic activity across the globe. Payment revenues worldwide are forecast to drop by as much as 8-10% as spending decreases, which is equivalent to a reduction of \$165bn to \$21bn [10].

After researching many articles, I also found positive reviews about fintech technologies. According to research, the following conclusions can be drawn.

The Harris Poll decided to analyze the impact of fintech around the world. The report highlighted the impact that COVID-19 has had on the adoption and use of fintech technology.

The key takeaway was that consumer behavior in relation to the use of fintech applications is changing due to the onset of the pandemic.

Here are some of the survey results:

- 59% of people said they use more fintech applications than before COVID;
- 73% answered that they plan to manage their finances online after COVID and that this is the "new normal";
- 80% answered that they can already manage their money without physically visiting branches.

Blue color is for people, who use more fintech technologies, yellow – the same using, green – less using. As we can see in the field of fintech, users have become more active in using family transfers, banking, savings and investment. fintech solutions are becoming more popular with consumers, which helps the industry develop even faster [9].

Also, studying this research, there are several advantages of using fintech technologies. Those who used fintech during COVID found that it saved them time (57%), saved them money (42%) of managing their money (37%).

These benefits could mean long-term shifts in personal financial management. Most of people, (73%), view fintech as the "new normal", and (67%) plan to continue managing the majority of their finances digitally after COVID.

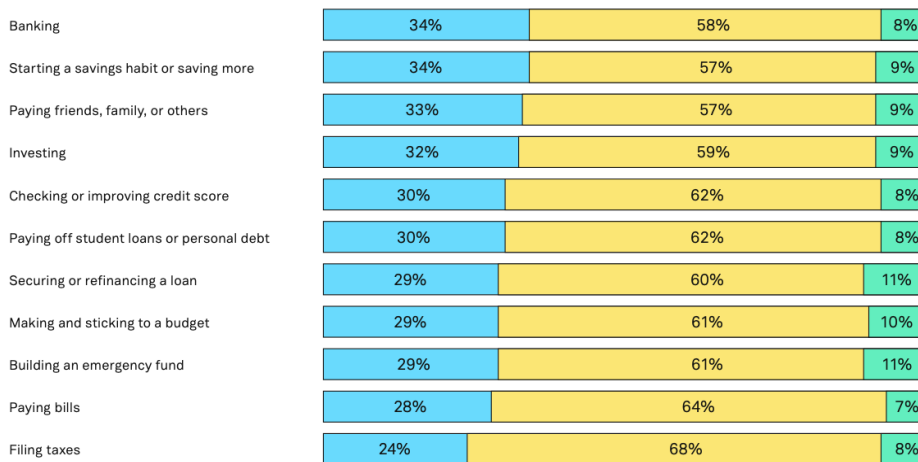


Figure 1. Using fintech technology for more financial tasks  
 Source: compiled by authors on materials [11].

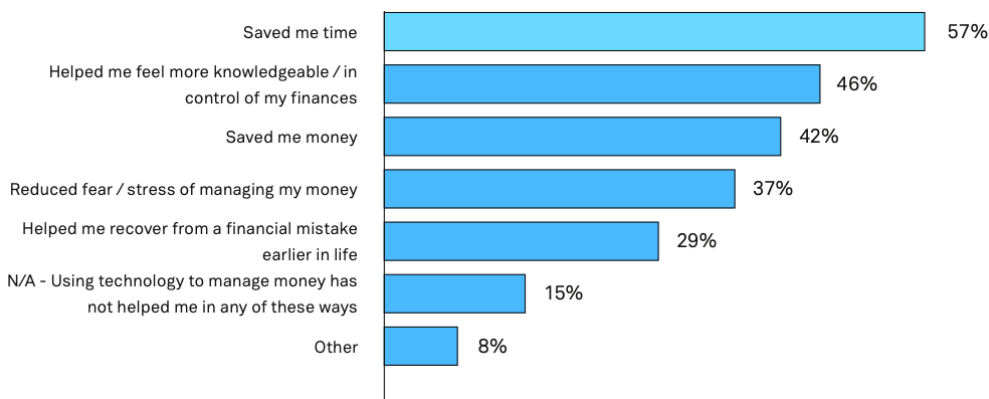


Figure 2. Benefits of using fintech during COVID-19  
 Source: compiled by authors on materials [11].

Can also be separately highlighted the topic of using fintech technologies in digital mode. The picture shows proportions of finances managed digitally versus offline. The Figure 3 shows yellow, which symbolizes managed offline option, and blue colour, which symbolize managed digital using of fintech.

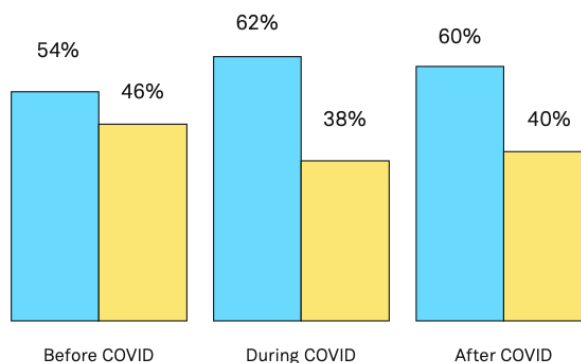


Figure 3. Proportions of finances managed digitally vs. offline  
 Source: compiled by authors on materials [11].

**Conclusions**

When the financial stress of COVID-19 set in, consumers turned to fintech and viewed it as a critical financial lifeline. It was expected that people would look for alternative ways to manage their finances, but it is the tangible benefit that people are realizing that is making fintech the new normal for many. Many capabilities that seemed cutting edge prior to the pandemic, like the ability to manage one’s finances via mobile apps, are quickly becoming

commonplace. Moving forward, more companies can incorporate fintech to adapt to meet these new consumer expectations.

A large number of traditional financial processes are still paper-based, which will be an increasing point of friction with consumers who have now experienced better and expect more. While fintech companies created many of the "lifeline" apps and services during the global pandemic, traditional institutions have also provided new digital tools in the face of COVID-19. Now, both will be challenged to push innovation further and evolve to meet changing consumer expectations.

The COVID-19 crisis creates opportunities to further expand the role of fintech in financial inclusion in developing countries. By providing financial services to vulnerable groups, fintech contributes not only to inclusive growth, but also to economic resilience during times of economic turmoil. Countries can use fintech technologies to the financial system even in times of crisis. In particular, fintech can effectively open up new sources of finance for vulnerable groups that are underserved by banks and other traditional financial institutions.

These platforms include risk assessment and insurance opportunities. FinTech also offers innovative financial solutions that are valuable for low-income groups during pandemics. With the accelerated pace of innovation in the fintech sector, which is likely to pick up even greater speed in a world that is increasingly digital after COVID-19, regulatory capacity needs to be strengthened to keep pace with change.

Finally, countries must invest in digital infrastructure to improve the interaction between the digital and non-digital global economies.

### Abstract

The results of the survey on the financial technologies impact on society and technological progress around the world are analyzed. The risks associated with development of fintech are shown. The impact of the COVID-19 pandemic on the development of financial technologies, especially in retail, pharmaceuticals, tourism, and catering is highlighted. The key benefits of financial technologies use that became tangible for customers during the pandemic have been identified. Convenient fintech applications allow companies to attract customers whom banks do not offer full scale of services, such as students or immigrants. The forced social distancing stimulates growth in operations through online financial tools. FinTech can effectively open up new sources of funding for vulnerable groups that are underserved by banks and other traditional financial institutions. The problems of managing the development of financial technologies at the present stage are generalized. Due to the rapid development of financial technologies, legislative and regulatory framework is lagging behind, which can negatively affect the consumer experience. Given the accelerating pace of innovation in the fintech sector, which is likely to pick up even more in a world that is becoming increasingly digital after COVID-19, regulatory capacity needs to be strengthened to keep pace with change. Finally, countries need to invest in digital infrastructure to improve the interoperability between the digital and non-digital economies around the globe.

### Список літератури:

1. Douglas W. Arner. The Evolution of Fintech: A New Post-Crisis Paradigm? / Douglas W. Arner, János N. Barberis, and Ross P. Buckley // *Geo. J. Int'l. L.* – 2016. – №47. – P. 1271.
2. Chris Brummer. Fintech and the Innovation Trilemma / Chris Brummer, Yesha Yadav // *Geo. L. Rev.* – 2019. – №107. – P. 235.
3. Howell E. Jackson. The Nature of the Fintech Firm / Howell E. Jackson // *Wash. U. J. L. & Pol'y.* – 2020. – №61. – P. 9.
4. Fajar M. Financial Technology (Fintech) Corporate Strategy in Dealing with Pandemic Coronavirus Disease 2019 (COVID-19) / Fajar M. – 2020. [Електронний ресурс] – Режим доступу: <https://ssrn.com/abstract=3591119>.
5. Nader Alber. The Dynamic Relationship between FinTech and Social Distancing under COVID-19 Pandemic: Digital Payments Evidence / Nader Alber, Mohamed Dabour // *International Journal of Economics and Finance, Canadian Center of Science and Education.* – 2020. – vol. 12(11). – P. 109.
6. CNews. Издание о высоких технологиях. [Електронний ресурс] – Режим доступу: [http://www.cnews.ru/news/top/2018-10-17\\_tri\\_rossijskie\\_fintehkompanii\\_voshli\\_v\\_sotnyu](http://www.cnews.ru/news/top/2018-10-17_tri_rossijskie_fintehkompanii_voshli_v_sotnyu).
7. Blurring the Boundaries: How FinTech Companies Affect the Financial Services Sector // PwC Global. [Електронний ресурс] – Режим доступу: <https://www.pwc.ru/ru/banking/publications/fintech-global-report-rus.pdf>.
8. Theoretical data // Official website of KPMG. [Електронний ресурс] – Режим доступу: <https://home.kpmg/xx/en/home.html>.
9. Theoretical data // InVenture. [Електронний ресурс] – Режим доступу: <https://inventure.com.ua/news/world/globalnye-investicii-v-fintech-sokratilis-na-tret-v-period-koronavirusa>.
10. Theoretical data // Official website of McKinsey&Company. [Електронний ресурс] – Режим доступу: <https://www.mckinsey.com/>.
11. The FinTech effect. Spotlight on COVID-19 // Note from Palid. [Електронний ресурс] – Режим доступу: <https://plaid.com/documents/the-fintech-effect-spotlight-on-covid.pdf>.

**References:**

1. Douglas W. Arner, János N. Barberis, and Ross P. Buckley. (2016). The Evolution of Fintech: A New Post-Crisis Paradigm?. *Geo. J. Int'l. L.*, 47, 1271.
2. Chris Brummer, Yesha Yadav. (2019). Fintech and the Innovation Trilemma. *Geo. L. Rev.*, 107, 235.
3. Howell E. Jackson. (2020). The Nature of the Fintech Firm. *Wash. U. J. L. & Pol'y*, 61, 9.
4. Fajar M. (2020). Financial Technology (Fintech) Corporate Strategy in Dealing with Pandemic Coronavirus Disease 2019 (COVID-19). Retrieved from <https://ssrn.com/abstract=3591119>.
5. Nader Alber, Mohamed Dabour, (2020). The Dynamic Relationship between FinTech and Social Distancing under COVID-19 Pandemic: Digital Payments Evidence. *International Journal of Economics and Finance*, Canadian Center of Science and Education, 12(11), 109.
6. CNews. Retrieved from [http://www.cnews.ru/news/top/2018-10-17\\_tri\\_rossijskie\\_fintehkompanii\\_vo\\_shli\\_v\\_sotnyu](http://www.cnews.ru/news/top/2018-10-17_tri_rossijskie_fintehkompanii_vo_shli_v_sotnyu).
7. Blurring the Boundaries: How FinTech Companies Affect the Financial Services Sector. PwC Global Retrieved from <https://www.pwc.ru/banking/publications/fintech-global-report-rus.pdf>.
8. Theoretical data. Official website of KPMG. Retrieved from <https://home.kpmg/xx/en/home.html>.
9. Theoretical data. InVenture. Retrieved from <https://inventure.com.ua/news/world/globalnye-investicii-v-fintech-sokratilis-na-tret-v-period-koronavirusa>.
10. Theoretical data. Official website of McKinsey&Company Retrieved from <https://www.mckinsey.com/>.
11. The FinTech effect. Spotlight on COVID-19. Note from Palid. Retrieved from <https://plaid.com/documents/the-fintech-effect-spotlight-on-covid.pdf>.

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