

ритории Республики Беларусь Международных стандартов финансовой отчетности и их Разъяснений, принимаемых Фондом Международных стандартов финансовой отчетности в качестве технических нормативных правовых актов. Национальным банком проводится работа по реализации мер, направленных на применение МСФО в качестве первоочередных и единственных стандартов бухгалтерского учета и финансовой отчетности банков [5].

### **Библиографические ссылки**

1. Стефанович Л. И. Банковский бухгалтерский учет: этапы развития // Бухгалтерский учет и анализ. 2020. № 9. С. 21–30.
2. Стефанович Л. И. Стратегия развития бухгалтерского учета и отчетности в банках в условиях глобализации международных рынков капитала: монография. Минск: Изд. центр БГУ, 2011. 328 с.
3. Государственная программа перехода на международные стандарты бухгалтерского учета в Республике Беларусь, утвержденная постановлением Совета Министров Республики Беларусь от 4 мая 1998 г. № 694 // Электронный ресурс: КонсультантПлюс. Беларусь / ООО «ЮрСпектр», Нац. центр правовой информ. Респ. Беларусь
4. Банковский кодекс Республики Беларусь от 25.10.2000 № 441-3: принят Палатой представителей 3 октября 2000 г.: одобр. Советом Респ. 12 окт. 2000 г. // Электронный ресурс: КонсультантПлюс. Беларусь / ООО «ЮрСпектр», Нац. центр правовой информ. Респ. Беларусь.
5. Стефанович Л. И. Эволюция перехода банковской системы Республики Беларусь на МСФО // Бухгалтерский учет и анализ. 2020. № 9. С. 3–8.

УДК 336.719

## **DIGITAL INNOVATION MANAGEMENT IN FINTECH COMPANIES**

**O. Y. Zhukovskaya<sup>1</sup>, Yang Jie<sup>2</sup>**

*<sup>1</sup> PhD in Economics, Associate Professor, Department of Innovates and Entrepreneurship, Belarusian State University, Minsk, Republic of Belarus, e-mail: [oyzhukovskaya@gmail.com](mailto:oyzhukovskaya@gmail.com)*

*<sup>2</sup> Master's Student, Department of Innovates and Entrepreneurship, Belarusian State University, Minsk, Republic of Belarus, e-mail: [yeungkit6666@gmail.com](mailto:yeungkit6666@gmail.com)*

The article reveals the prospects of fintech companies under the contemporary conditions of the development of digital technologies. Some important features of digital innovation management in fintech companies are outlined. It is stated that the

integration of fintech industry with modern technologies in cooperation with the innovation firms is perspective.

**Keywords:** fintech companies; Big Data; digital technologies; Internet of Things (IoT); information technology (IT).

## УПРАВЛЕНИЕ ЦИФРОВЫМИ ИННОВАЦИЯМИ В ФИНТЕХ-КОМПАНИЯХ

О. Ю. Жуковская<sup>1)</sup>, Ян Цзе<sup>2)</sup>

*<sup>1)</sup> кандидат экономических наук, доцент, кафедра инноватики и предпринимательской деятельности, Белорусский государственный университет, г. Минск, Республика Беларусь, e-mail: [oyzhukovskaya@gmail.com](mailto:oyzhukovskaya@gmail.com)*

*<sup>2)</sup> магистрант, кафедра инноватики и предпринимательской деятельности, Белорусский государственный университет, г. Минск, Республика Беларусь, e-mail: [yeungkit6666@gmail.com](mailto:yeungkit6666@gmail.com)*

Статья раскрывает перспективы финтех-компаний в современных условиях развития цифровых технологий. Обозначены некоторые важные особенности управления цифровыми инновациями в финтех-компаниях. Отмечается перспективность интеграции индустрии финтеха с современными технологиями в условиях сотрудничества с инновационными фирмами.

**Ключевые слова:** финтех-компании; Большие данные; цифровые технологии; Интернет вещей (IoT); информационные технологии (IT).

Under the modern conditions with the rapid development of Big Data, IoT, mobile internet (5G), cloud computing and artificial intelligence as well as digital economy, industry 4.0 has become a priority for developed countries and some developing countries in Asia. With the idea to promote industry 4.0 governments in different countries support local fintech companies by giving them more space such as new financial policy and political convenience.

The development of modern technologies and the emergence of fintech startups will primarily affect lending (P2P) and investment (the automated portfolio management apps), deposit placement (new budgeting apps) and currency exchange (cryptocurrency) [1]. However, a significant increase in competition with traditional intermediaries of small fintech companies is quite a difficult task [2], because, firstly, there are practically no such investors as “business angels” (or venture investors) who support projects at the initial stage, and secondly, this business is still characterized by rather low profitability, which does not allow to attract investments in the industry actively (for instance, in Europe the biggest fintech winners are now looking to acquire customers from other continents [3]).

The Internet Initiatives Development Fund, established by the Agency for Strategic Initiatives for the Development of Internet Entrepreneurship for 2022, also aims to improve the situation. Innovative activities of traditional financial intermediaries due to the understanding of the threats posed by retail trade encourage traditional financial intermediaries to develop high-speed digitalization [4]. So, they develop their own or buy ready-made new financial products, change the channels of interaction with consumers of their services, and expand their technologies. In the USA and Europe the practice of cooperation between traditional intermediaries and technology companies is being actively introduced. Throughout the world there are successful examples of cooperation between large financial institutions and fintech startups, as well as with leading technology companies: Citi, Google, Mitsubishi Tokyo UFJ Bank and IBM.

Apple, Amazon, Facebook, and other IT companies have also started competing with fintech companies for some types of services [5]. Cooperation between the participants of both markets includes various forms of cooperation – from the involvement of IT specialists of financial institutions to the conclusion of agreements on the external development of products and technologies. Many fintech companies have also demonstrated a willingness to work with and invest in IT companies. Experts call the hybrid period of cooperation between fintech companies and IT companies the second stage of the fintech revolution. Large fintech companies are starting to independently promote innovative technologies and are gradually turning into innovation companies. In 2020, Deloitte evaluated the technical capabilities of 11 major fintech companies that hold a significant share in the retail market [6]. Digital information technologies and innovations affect different aspects of business process management, supply chain management, marketing methods as well as the processes of managing and organizing employees.

Business process management (BPM) is recognized as a set of methods and techniques to consider a business process, develop designs for it, monitor the process by measuring data, as well as by optimizing and automating the process with human, technological and financial resources [7]. New digital innovation technologies not only create opportunities and chances for new services, business models and products but also alter business processes: for example, manual works can be simply conducted and replaced by internet-based devices as well as products in storage can be traced and monitored by means of the transactions with IoT. Through social media services and products can be promoted to potential customers, which is an easy and effective way of advertising. Under the premise of so-called “Big Data” era the information in the enterprise is diversified. In order to improve the communication efficiency of the internal employees of the enterprise the intelligent algorithm will in order to calculate a new business model suitable for the company’s development and benefits. The business model system gives an optimal staffing plan minus unnecessary positions, so that the company’s structure will not be bloated, and a new communication bridge between managers is established, thereby improving the company’s efficiency.

The application of biometric tools is becoming more and more important: for instance, fintech companies launched a mobile investment and brokerage application «My Investments», which combines the brokerage services of fintech companies and the products of a management company. With the application, users can perform operations on the stock, currency and futures markets, view the financial results of each operation and the entire portfolio, as well as track changes in the quotations of exchange-traded instruments.

Fintech companies pay special attention to the confirmation of transactions and the protection of the application itself, which is provided by Touch ID, Face ID and password technology. Other financial institutions are also developing similar trading applications. For instance, BCS LLC has developed a mobile application «My Broker» that allows you to trade currencies, stocks and bonds in Russia and the USA.

FINAM has launched a multifunctional trading platform for trading, technical analysis and trade automation «FinamTrade», which tracks the prices of stocks, bonds, currencies, futures and options of Russian and foreign issuers. To make purchase and sale transactions, you need to open a brokerage account with FINAM and simultaneously manage several accounts on different trading platforms: the MICEX exchange, the FORTS futures market, the Forex currency market and the Frankfurt Stock Exchange (XETRA). JSC «Broker open» launched a mobile application «Discover Brokers Invest» for Android devices, which allows customers to trade with a stock, futures and currency markets of the exchange, track quotes and the history of orders, get information about accounts, send orders and manage their accounts.

The key area that major fintech companies are developing is biometric services. The largest fintech companies prefer face and speech recognition (Sberbank, Tinkoff Bank, Raiffeisenbank, Alfabank, etc.), not excluding other biometric methods. Sberbank uses fingerprints and palm recognition. However, in the field of fintech solutions, there are also P2P or P2B lending mechanisms that traditional intermediaries do not cover. The level competencies of the developers in the field of fintech is quite high, but even the largest fintech companies often do not have enough qualified personnel, which hinders the development of the fintech market.

New technologies (digital, telecommunications, biometric, etc.) are reinventing the financial service sector, actively replacing traditional players and traditional business models. The integration of new financial solutions allows companies to change the cost structure, reduce the cost of certain functions (working with customer databases, loyalty programs, etc.) as well as increase the efficiency and quality of business processes (targeting the target audience, rating, etc.). Moreover, it significantly affects the stability of the core business, etc. Thus, the fintech industry is gradually becoming an independent and rapidly developing sector of the modern economy. In conclusion, it is possible to notice that, despite some problems, the fintech industry is actively developing and has every chance to become one of the most advanced in the world.

## References

1. Truong O. How fintech industry is changing the world // Centria University of Applied Sciences : site. URL: <https://core.ac.uk/download/pdf/80995188.pdf> (date of access: 11.02.2021).
2. Vasylichuk I., Suprun A., Petrishina T. Competition and cooperation between fintech companies and traditional financial institutions // Web of Conferences, 2020. URL: [https://www.researchgate.net/publication/340834408\\_Competition\\_and\\_cooperation\\_between\\_fintech\\_companies\\_and\\_traditional\\_financial\\_institutions](https://www.researchgate.net/publication/340834408_Competition_and_cooperation_between_fintech_companies_and_traditional_financial_institutions) (date of access: 11.02.2021).

3. FinTech in 2020: Five Global Trends to Watch // MasterCard : site. URL: [https://newsroom.mastercard.com/wp-content/uploads/2020/01/Start-Path\\_-CB-Insights-2020-Trends-Report\\_FINAL.pdf](https://newsroom.mastercard.com/wp-content/uploads/2020/01/Start-Path_-CB-Insights-2020-Trends-Report_FINAL.pdf) (date of access: 17.02.2021).

4. Promoting Digital and Innovative SME Financing [Electronic resource] // Global Partnership for Financial Inclusion. International Bank for Reconstruction and Development, the World Bank, 2020: site. URL: [https://www.gpfi.org/sites/gpfi/files/saudi\\_digitalSME.pdf](https://www.gpfi.org/sites/gpfi/files/saudi_digitalSME.pdf) (date of access: 11.02.2021).

5. Kuzmanova T. Fine-Tuning Europe: How to Win the Global FinTech Race? // Wilfred Martens Centre for European Studies: site. URL: [https://www.martens-centre.eu/wp-content/uploads/2020/06/paper\\_approach\\_to\\_fin-tech-web-page\\_002.pdf](https://www.martens-centre.eu/wp-content/uploads/2020/06/paper_approach_to_fin-tech-web-page_002.pdf) (date of access: 15.02.2021).

6. Private FinTech as a tool for sustainable business development in Russia and Kazakhstan // Deloitte. Deloitte CIS Research Center, 2018. URL: <https://www2.deloitte.com/content/dam/Deloitte/ru/Documents/research-center/Fin-Tech-Market-Trends%202018-en.pdf> (date of access: 12.02.2021).

7. Paschek D., Luminosu C. T., Draghici A. Automated business process management – in times of digital transformation using machine learning or artificial intelligence // Web of Conferences, 2018. URL: [https://www.researchgate.net/publication/319012077\\_Automated\\_business\\_process\\_management\\_in\\_times\\_of\\_digital\\_transformation\\_using\\_machine\\_learning\\_or\\_artificial\\_intelligence](https://www.researchgate.net/publication/319012077_Automated_business_process_management_in_times_of_digital_transformation_using_machine_learning_or_artificial_intelligence) (date of access: 10.02.2021).

УДК 336.71

## **НАПРАВЛЕНИЯ ПОВЫШЕНИЯ ЭФФЕКТИВНОСТИ РОЗНИЧНОГО БИЗНЕСА БАНКА**

**Ахмедов Вели<sup>1)</sup>, Д. В. Шпарун<sup>2)</sup>**

*<sup>1)</sup> студент 4 курса, Белорусский государственный университет, г. Минск, Республика Беларусь, e-mail: [veli.akhmedov.0909@mail.ru](mailto:veli.akhmedov.0909@mail.ru)*

*<sup>2)</sup> кандидат экономических наук, доцент, кафедра банковской экономики, Белорусский государственный университет, г. Минск, Республика Беларусь, e-mail: [shparundina@gmail.com](mailto:shparundina@gmail.com)*

В статье обосновано внедрение кредитно-сберегательной платежной карты типа Visa Junior для повышения эффективности розничного бизнеса банка.

**Ключевые слова:** розничный бизнес; чистый доход; процентная маржа.