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FINANCIAL TECHNOLOGIES' IMPACT ON THE DEVELOPMENT OF BANKING

Keywords: *bank; banking; FinTech company; financial market; financial services; innovative financial technologies*

The rapid development of the digital economy at the national and worldwide levels in recent decades has accelerated processes of transformation of financial systems and become a phenomenon of financialization of the global economy. FinTech companies operating in the financial market represent a new, quite special category of parabank institutions. Their feature is using of modern technology to develop and provide traditional financial services. Without Internet and digiitalization, compatibility of electronic devices, hardware and software, as well as new experiences, skills and consumer confidence, it would not be possible to provide such services. This is a kind of analogy with search engines that have changed the architecture of the market and mediation, and led to the transformation of business models of financial market entities, in particular banks [9].

The classic view on the banking sector (or the banking services market) implies that it is a heterogeneous oligopoly (a competitive structure dominated by several suppliers providing a heterogeneous product). However, the experience of post-crisis years shows that attempts to evaluate the oligopolistic influence of participants on the banking services market most often prove something else – the existence of monopolistic competition. The structure of modern banking now appears at an unusual angle: the competitive behavior of banks does not necessarily depend on the number of competitors in the market or their concentration. The key determinants of bank behavior are "non-conventional" factors, which can be divided into two groups, depending on the place of their rise.

Therefor the traditional market factors include freedom to enter the market [1], information asymmetry, number of branches (and the possibility of their free opening) and level of service and marketing support [5]. In the technological sphere, however, the fundamental importance has: the electronic banking, so called "scale effect" (the impact of the number of banks in the market on weighted average costs), the development level of electronic payment systems, credit bureaus and the emergence of FinTech.

Gaining increasing popularity in banking circles, this term lost more and more of its original meaning, acquiring new features under the influence of banking protocols and procedures. Important note is that in the scientific literature the term FinTech currently still does not have a unite definition due to the fact that it is used to denote processes that are in terms of rapid development and constant transformations [2].

FinTech is a new opportunity to change the financial sector, casting doubt on existing business models, services and rules. FinTech is a combination of financial and digital services and more and more individualized technologies with widely used databases (Big Data). FinTech includes new forms of mobile payments, virtual currencies (Bitcoin), advanced transactions, B2C and B2B banking, as well as innovations in investment funds and database management [7]. The feature of FinTech is that products are developed by companies from the shadow or half-shadow banking, e-companies which are not banks, insurance and investment companies or payment organizations. These companies offer many alternative ways to access a variety of services, from online transfers to comprehensive financial planning [4].

The path of FinTech's development is largely determined by the reasons that triggered the emergence of this concept. The results of the analysis of previous studies allow to identify two groups of factors that initiated the development of the sector.

The group of externalities (external to banks and other financial intermediaries) include factors arising from the development of objective processes in society, the appearance of which fundamentally changed the environment in which financial institutions operate, i.e.: the development of information technologies, in particular the speed of processing and transmitting information, the use of new software, etc.; the significant reduction of cost for used technologies, including a reduction in the level of technical and cost barriers to the enter the technology market; the loss by banks due to the 2008 crisis confidence of banking services' consumers, which led to the desire to "bypass" banks in financial intermediation; the increasing the technological inclusion of the population (use of the Internet, mobiles, smartphones and other gadgets), first in developed countries, and then in developing ones.

Among the internal factors, the following should be noted: the need of reducing the cost of maintaining traditional business models to ensure an acceptable rate of profit for owners and investors; the use of innovations to circumvent stricter regulatory standards; the need of satisfying the increasing needs of users in the speed, diversity and costs of provided services; increasing demands of consumers of financial services in connection with the penetration of non-financial companies, in particular GAFA (Google, Apple, Facebook and Amazon); the active use by regulators the financial innovations that increase macro-financial stability [1].

Representatives of banking and capital markets sectors perceive the high rates of technological change as a threat to growth prospects. Thus, 83% of traditional financial service providers believe that they are threatened by a loss of business that can go to competitors – companies in the financial technology segment. The greatest pressure from the financial and technological companies will be subjected to segments of banking operations and payments. Traditional financial institutions are afraid that FinTech companies can absorb up to 28% of the market by 2021. Banks themselves estimate the loss of business in favor of FinTech at 24%, asset management company – about 22%, and insurers – 21% [6].

It should be noted that FinTech companies offer their customers much cheaper products than traditional banking services. In addition, FinTech companies apply innovative risk assessment methods: from analyzing a behavior of their clients based on social networks and up to machine-learning algorithms [8]. The use of new business models allows parabanks operate without the obligation to comply with regulatory requirements imposed on classic banks.

In the cases of further FinTech development, key steps for banking business-models can be open innovation – applications that allow other companies to participate in the value chain for a client. This will facilitate the adaptation of banks to market conditions in which the legislator itself encourages competition from other actors, for example, in the payment services market.

Banks can benefit greatly from open APIs, as it is possible to integrate third-party services – within their own platform. Banks can become a source of innovations – "FinTech enablers" – and take on some of the innovative services previously provided by other companies – links in the value chain. Thus, the strategy of cooperation, and not just competition, can bring many benefits to banks. Such types of system platforms for innovative customer service "one-stop-shop" already exist in some banks. FinTech companies can also expand their market share through collaboration with banks, the development of a new customer approach, the innovative use of infrastructure (Cloud Computing) and databases (Big Data).

Main condition for the success of the banks is the cooperation of old and new market players, which ultimately benefits both parties. While in previous years banks perceived FinTech startups as a threat, they currently support a strategy of cooperation within the framework of innovative business models.

The transformation of banking in the context of the rapid development of FinTech sector involves the creation of new business models by banks.

During 2018 contactless payments, biometric technologies and artificial intelligence were among the main trends in the development of FinTech. In 2019, the FinTech trend was implemented: Blockchain spreading, mobile payments, artificial intelligence, voice technologies, regulatory technologies (RegTech), personal robotic assistance (PRA), cloud technologies, payment services directive 2.0 (PSD2), initial public offering (IPO).

Recent trends are already changing the economy, especially such phenomena as cognitive economy, sectoral convergence, mobile solutions, crypto-currencies and decentralized virtual settlements (Blockchain-based). The most successful in the future will be banks that have changed their business model, using the opportunities provided by financial technologies.

Banking must accept digitalization – or lose its own customer base.

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