

## The Impact of Technologic Innovation on Business in the Financial-Banking Field

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### Abstract

*The innovation in the financial-banking field is determined by the progress of the IT technology, therefore in this paper we have identified several variables that corroborate the identification and development of a particular field, respectively the Fintech field. Being approached from the perspective of business development but also as a consequence of the quickening development of online tools, Fintech is a reality and a direct consequence of the entrepreneurial skills of some innovators of the younger generations. Thus, after a presentation of the Fintech aspects, we synthetically addressed the legal regulations in the field and the specific security instruments. At the end of the paper I showed what the specific elements of the development of the online banking system are and synthesized the advantages of the functioning of such banking institutions.*

**Key words:** fintech, financial-banking field, technologic Innovation, online banking system

**J.E.L. classification:** G17, G21

### 1. Introduction

The socio-economic changes and the increasingly accelerated development of technological innovations in the financial field have determined a process of redefining the way of interaction with customers through its transfer to the online environment. Currently this technological innovation in the financial sector can be found in Fintech (*Financial Technology*).

New technologies are changing the financial sector and the way consumers and businesses access services, creating opportunities for FinTech-based solutions to provide better access to finance and improve financial inclusion for digitally connected citizens. According to the Bank of International Regulations, the definition of Fintech and other terms assimilated to this area is important from the perspective of the approaches used by the supervising authorities. Although there are several definitions for Fintech, the most used one is considered to be the one provided by the Financial Stability Board, which considers that Fintech is the "technological innovation of financial services and products that can lead to new business models, new applications, processes and products with material effect associated with the provision of financial services. "There are other definitions: Fintech is a business that aims to provide financial services through the use of modern software and technologies" (Isac, 2018).

Regardless of the definition, the essence of Fintech is the financial technology that makes the transition from financial traditionalism to the finances of the future. The complexity of these technologies gathered in the "incubators" of intelligence, represents the main ingredient that the man of the future needs, a mixture between the internet of things and the artificial intelligence, a "revolt" of the modern man against the old and limited one, who settles for little.

The emergence of Fintech forced the traditional systems dealing with the financial field to "wake up" from the lethargy in which they were pleased and to open up to the solutions offered by start-up companies that provide all kind of innovative and ingenious applications, which optimize the interaction level of those active in the financial field.

Generally speaking, three groups of financial products or services can be identified which fall within the sphere of financial technological innovations (Isac., 2018):

- credit services, attracting deposits and attracting capital (new ways for individuals and legal entities to obtain fast loans with decentralized risk analysis, crowdfunding, peer-to-peer financing, mobile banks, credit scoring, etc.),
- services and means of payment, clearing and settlement (mobile wallets, peer-to-peer transfers, electronic currencies, virtual currencies, currency sales, digital currency exchange platforms, etc.)
- investment and investment management services (high frequency trading, copy-trading, e-trading, robotic consulting, etc.).

## 2. Theoretical background

Fintech has started its ascension towards the new future in the field and is an industry capable of reorganizing the financial sector in a more accessible way, as demonstrated by the increase of investments in this kind of companies to a value of over 150 billion euros until 2020. On the other hand, over 40% of the clients of the traditional institutions are willing to test the services offered by the Fintech companies in the financial area.

The impact of Fintech's development at the financial system level can be considerable, the technological innovation being able to reconfigure its current structure.

Fintech can also bring a number of benefits such as:

- facilitating access to financial services through secure communication media, leading to a deepening of the financial inclusion;
- decentralization and diversification of financial intermediation services;
- increasing the efficiency and speed of serving financial institutions clients
- reducing information asymmetry and improving risk analyzes by diversifying the type of data used for this purpose.

A benefit of financial technological innovations consists of the opportunities they offer and the direct influence on the main products of traditional banks, which materialize in:

- reduction of staff working in banks, as a result of the automation of back-office processes;
- introducing a new executive role, responsible for the implementation and development of new products that incorporate financial technological innovation (for example, chief digital officer).
- increasing competition in the field of financial services represented by non-specialized companies offering Fintech products or services;
- the development on its own of new products that incorporate financial technological innovation, or by collaborating with companies specialized in this field
- the emergence of companies that have significant financial resources and have a significant impact on the financial services market, such as Amazon and Alibaba;
- the need for a digital education of the staff working in the credit institutions, but also of the public to whom these new products are addressed, is outlined.

The emergence of new technologies in the financial field can lead to changes in the strategy of banks by increasing the scope of eligible customers. The introduction of new concepts such as the digital financial services platform could facilitate the interaction of Fintech companies with financial institutions through open banking applications through which banking services can be integrated with those of external providers, thus enhancing the customer base, and they can manage their financial products through a single interface.

The perspectives regarding the payment and settlement of accounts systems are determined by the increase of the competition, the regulations and the intensification of clients' the preferences towards digital experiences. Thus, the premises of introducing new means of payment, but also of developments in the field of distributed registers technology are created which, according to a study published by the Bank of International Regulations, has the capacity to transform financial services by reducing their complexity, increasing processing speed and increasing transparency of the transactions registration.

In conclusion, Fintech is a mix between artificial intelligence and the Internet of Things and represents a driver of changes in the sectors in which it operates, according to a recent KPMG global survey. Thus, banks, insurers and investment management companies consider artificial intelligence, blockchain and Internet of Things technologies to be essential for the development of financial services.

### **3. Elements specific to the development of information technology**

At European level, the institutions aim to keep pace with the digitization and financial technological innovation, while at the same time committing themselves to ensure the safety and efficiency of the infrastructure. The most important initiatives in this regard are:

The instant payment settlement service (TIPS) allows the possibility of performing within a maximum of 10 seconds a payment service of a maximum of 49,999.99 lei for 24 hours, 7 days a week, 365 days a year. These types of payments have the role of "changing the game" in the banking field and the context of the launch of the "Instant Payments" service by Transfond is developing in a favorable European and global environment as the European and global payments industry moves towards the payment standard instant, including banks, traditional payment service providers and FinTechs. However, the local environment is not developed according to these global trends because in the category of electronic payments per inhabitant there is a massive deficit of education and financial practice, manifested at the level of consumers (Popescu, 2018).

*The PSD 2 payment services directive* is addressed to both traditional payment service providers, such as banks or payment institutions, and to technical service providers such as payment initiation providers and information service providers. accounts, without taking possession of transfer funds.

The importance of developing financial technologies and regulating their functioning is also highlighted in the FinTech Action Plan: for a more competitive and innovative European financial sector presented in Brussels in March 2018 by the European Commission to the European Parliament, the Council, the European Central Bank, the Committee European Economic and Social Committee and the Committee of the Regions. This plan stipulates that innovative companies bring new products to the market or make available ways to provide renowned services in innovative forms or at more competitive prices and innovators must be able to extend their services to include as many large users as, mobilizing economies of scale. To fully benefit from the single market, they should be able to use a "European passport" based on which they comply with regulatory requirements. In conclusion, the rapid progress made by FinTech causes structural changes in the financial sector that need to be regulated so as to ensure the creation of a conducive environment to encourage innovation in the financial sector, while constantly maintaining financial stability and a high level of protection of the investors and consumers and of course the security of transactions.

Another very important aspect of Fintech development is information security. European Supervisory Authorities (ESAs) amplify the importance of security strategies to ensure the integrity of the European financial system. Authorities worldwide consider cyber risk assessment, and the Financial Stability Board (CSF) and other institutions in the field identify four risk categories:

- macro-financial risks (at the level of the entire financial system);
- micro-financial risks (at the level of the different entities, infrastructures of the financial markets or sectors);
- risk of concentration or potential deterioration of credit standards;
- risks based on operational elements that come from the evolution of Fintech.

In order to increase the security of Fintech services, two categories of providers are set out:

Payment initiation service "PISP" providers are payment service providers that carry out payment order initiation services at the request of the payment service user regarding a payment account held by another payment service provider (for instance at a bank). These payment services establish an IT bridge between a merchant's website and the online banking platform of the payment service provider that offers payer account management services, for the purpose of initiating payments via the internet on a credit-transfer basis.

Providers of information services regarding "AISP" accounts are the payment service providers that carry out online services that involve the provision of information in relation to one or more accounts owned by the payment service user or to another payment service provider or to multiple payment service providers. These services allow the payment service user to obtain information on several payment accounts held by one or more different payment service providers and even have an overview of his financial situation.

All payment service providers will have to apply strict customer authentication when the payer accesses their payment account online, initiates an electronic payment operation or takes any action, through a remote channel, which may involve a risk of payment fraud or other abuse.

The common point of digital banks is represented by card transfer services. They can issue cards associated with a digital account but cannot create credit like banks that comply with legal regulations in the field of lending to natural and legal persons. These cards are not associated with a bank account opened with traditional banks and their functionality is determined by managing money through an application.

Their main advantages are:

- the notion of commission for transfer outside the country via alternative digital accounts disappears and access is open to any internet user regardless of the country;
- obtaining the cards by any citizen over the age of 18;
- facilitating the obtaining of an IBAN that may be his / her own or to be used jointly with other users;
- fast money transfer;
- applications usage is more accessible to users because they are user-friendly compared to many banking applications.

The disadvantages that may arise in connection with the operation of these accounts are determined by the maximum amount that can be deposited in an account, the amount transferred or the number of replenishments.

**Revolut.** Revolut is a fintech started by two Russians in London and officially launched in Romania in 2018 which currently has over 35,000 Romanian users. The most important advantages of using Revolut services are:

- the reduction of the commissions applied by the traditional banks when making payments with the card abroad, because the conversion is made at the inter-bank exchange rate and not taking the euro basis at the rate established by the bank where the exchange is made. Thus it is estimated that 50 euros are saved for every 500 euros spent;
- small commissions for money transfers by applying the same algorithm so that those who want to transfer even 10 euros, will no longer have to pay the fees that the banks or financial services companies like Western Union pay;
- issuing a transaction report and budget limits can be set and when these are reached, the transactions are blocked or they give a warning.

So, Revolut is an alternative to classic banking and the transactions are carried out using a prepaid card by which transfers can be made from one Revolut user to another, making payments online or directly to merchants. The administration costs depend on the option chosen, respectively, the Standard, Premium or Metal service, which have low costs or allow free access to transfers and payments. Metal is a card with a special design, weighs 18 g, is made of stainless steel and it can access concierge services, medical insurance, cashback 1% and so on.

**Monese.** The financial services launched in 2015 by Monese can be initiated through an online form that includes a photo with an identity card and is granted to any European citizen. Monese cards are accepted in over 200 countries and are issued in three variants:

- The Starter Card for which no issuing and administration fees are charged, withdrawal fees are paid (except for the first 5 monthly withdrawals from the bank account which are free), payments and transfers;
- Plus Card which allows many free or cheaper services and costs 5 pounds;
- Premium card recommended to users who make many transfers because for 14.95 pounds all transactions are free regardless of their value and recipient. The financial services of this online bank are recognized and include users from over 200 countries.

**Monzo.** Monzo, one of the largest digital banks, defines itself as a "smartphone only bank" and uses Apple Pay and Android Pay applications. The specific operations of Monzo are the monthly issuance of the operations report, the free notifications for transactions, the free payment of card payments abroad or for the online transactions performed in a foreign currency, the free withdrawal from the ATM of the amounts up to 200 pounds. Easy access to bank services is demonstrated by the large number of users, over 700,000. Over 50% of the users of Monzo services are between 20 and 30 years old and the main tools for attracting customers are specific:

- **Payments with friends** – allows free transfers between users who are friends and frequently interact with each other. Thus, Monzo users can send instant money to each other by selecting, from the contact list, the recipient;
- **Golden tickets** – provides facilities for users to attract customers;
- **Bill splitting** – provides special payment access to users who can pay the bill at restaurants or cafes together from Monzo accounts.
- **Kakao-Bank** was launched in South Korea on the support of the KakaoTalk messaging app, which had 42 million customers. The ease of using its services, together with the operational transposition over an application with a very large user base, allowed to attract almost 2 million customers in 10 days.

#### 4. Conclusions

Technological evolution is of crucial importance for all, and in the area of FinTechs financial services, though regarded for a period of time as possible disruptors, they open the way to many challenges and opportunities.

In conclusion, the business development in the field of banking services is determined by the increasingly efficient information technology, frequently used by young people and which allow much lower costs than traditional banks that have high costs related to the operationalization of processes, expenses with salaries and maintenance expenses and for the rent of the premises in which branches and agencies are opened.

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