THE FINTECH REVOLUTION. BANKING FOR THE NEW GENERATION

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Abstract

The financial world is developing in an accelerated way, whilst banks are struggling to protect their path, finding a new procedure to keep the customers. Millennials have a modern challenge: to combine successfully the long-established habits with digitalization. Emerging technologies put a mark on the reinvigorated banking system. FinTech is the key element that thoroughly remodels the financial business. Nowadays, Robo advisory is designed without human guidance, becoming progressively beloved worldwide. Thus, in the following research paper, the focus is on the evolving relationship between banks and FinTechs. Moreover, it is presented the importance of contactless technologies in the digital revolution. The outcomes reveal the interdependence between cybertechnology and banking system. Accordingly, the banks will flourish considering the technology impact.

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JEL classification: *G20, O10*

1. FinTech: new concept, old association

Abbreviation for *financial technology*, FinTech refers to the financial solutions that come up because of technology. Nowadays, it is seen as the new marriage of financial business and information technology. (Arner, Barberis, Buckley, 2015) It comprises techniques as the security of data and even means of delivery for financial service. (Gai, Qiu, Sun, 2018) International startups are competing with common financial services, offering customers quickness of use and compliance. These are adjusting the expectations of the customers, enjoying a new and modern digital perspective, defined by the availability of

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the information, offered through devices or other trends, like Internet of Things (IoT). (Nicoletti, 2017)

In order to have a better usage of the phenomenon of FinTech, RegTech (regulatory and technology) comprises technology, especially information technology, in the context of regulatory monitoring, reporting and compliance. (Arner, Barberis, Buckley, 2017) Moreover, IT was in the past a model for the efficiency of costs, because it is a mechanization of processes. In this moment, a financial transaction may be completed without going to a bank, everything is done online. In fact, there is a digital transformation through which every industry passes. In financial services, this transformation is significant, following new business models.

2. Robo advisory

Contemporary, the worldwide environment is characterized by digitalization, in fact it should be pointed out the existence and importance of robo-advisors. These are online platforms that provide investment services, based on algorithms with no human guidance. Betterment, the first robo-advisor, was launched in 2008, but it only started to take investor money in 2010. Because of the recession during that time, robo-advisors firstly had to rebalance the assets. In fact, investors were able to manage the investments through a digital platform. Namely, it can be considered a do-it-yourself step by step investment. The global assets under management by robo-advisors, is $980 billion, while the number of users outstripped 45 million. (Statista, 2019)

However, during time, the concepts of "investments" and "savings" got a different understanding. People allocate their money, looking forward to receiving more in the future. The smartest idea is to choose the option that maximizes the return as much as possible. Nowadays, owning a bank deposit will not generate a high interest rate. Between 2016 and 2018, the trend in Romania was under 2%, or even under 1%, depending on the bank. Some banks apply cash withdrawal fees, in some situations, which may lead to a lower amount than the initial deposit. Right now, the interest rates are slightly higher. In fact, fewer and fewer people open a saving account. They do prefer to keep the money at home or to invest.

On the other hand, there are people who invest in real estate market. They are looking forward to passive income on a long term. It may be a good option for investing only if the property will increase its value over time. The main disadvantage is the great amount of money upfront. Buying a house, a cabin or even a studio may be expensive. Also, the ongoing maintenance expenditure can be costly. Even though it is pricy, real estate investments provide good returns, even better than the stock market. The volatility is lower and the control over the investment is higher because it is a tangible asset.

Indeed, Robo advisors were launched in order to make investing easier. Investment experience is not required and the set up process is simple. People let automated intelligence to invest with their money, while people have to pay some low fees for the process.

One of the most popular Robo company is Ally Invest. Their purpose is to c*hange the online banking landscape with innovative digital experiences.* (Ally Invest, 2019) The main company not only offer investment advisory, but also home loans, a package of banking products (as individual retirement accounts, savings, money-market etc.) and security brokerage. Ally Invest is beloved because it has a wide range of self-directed and managed investment products in the portfolio, fitting more strategies. Also, the fees and commissions applied are lower than the average. (Ally Invest, 2019) It encourages people to invest by offering a bonus between $50 and $3.500 for a minimum deposit of $10.000. The customer service employees are well trained, they receive requests from customers and they customize the best offer for their demand.

Save, plan and invest all in one place (Wealthfront, 2019) is the quote that best define Wealthfront. Unlike Ally, this company is focused on investments – the level of interest, advice for managing savings, automated investments. Based on their belief that *technology can handle some things better than people* (Wealthfront, 2019), the software is well developed for investing in the best opportunities that improve the performance. Dan Carroll, one of the founder of Wealthfront, had the idea of opening a Robo advisory company because of their parents. They were affected by the financial crisis back in 2008 and Dan Carroll had to help them with the loss calculation, a way to recover and future prospects. He was frightened by the fact that financial advisors pay attention only to affluent clients. In fact, people like his parents may not receive proper financial advice.

3. Contactless technology

When there is said the concept of "contactless technology", people associate it mainly with credit cards. Go down in history, the credit transactions appeared thousands of years ago. Farmers received seeds from the merchants, while the payment came after the harvest. One of the first documentary attested credit system may be found in the Code of Hammurabi.

The Code was written in Akkadian, being engraved on a black diorite. In this moment, it is stored and displayed in the Louvre, in Paris. It is the emblem of the Mesopotamian civilization, a set of laws that were called after the ruler of Babylon (1792 – 1750 BC). The main information is regarding how a credit system is fixed – offering the loan and paying back the money, with the additional interest rate. (Nagarajan, 2011)

Jump forward to 1885, store credit cards were given to the loyal customers of the hotels and stores. These resembles to a common credit card, except for two distinctions: open-loop and closed-loop. When a store credit card is open-loop, it may be used anywhere and it has the logo of Visa or Mastercard. Closed-loop cards can be used only in the department store or in affiliates stores. In the past years, the most popular were the closed-loop credit cards.

Western Union, which is at the moment a fintech company, started from the bottom, over 145 years ago. This company is known for sending and receiving money worldwide. One relevant moment for the credit card history was the introduction of "metal money", in 1914, by Western Union. The company gave free deferred payment allowance to their loyal clients as a goodwill gesture. (Cekauskas, 2019) Oil companies, travel companies and even department stores offered the same service to their customers, but it lasted only until World War 2. During the war, the usage of charge cards was strictly prohibited.

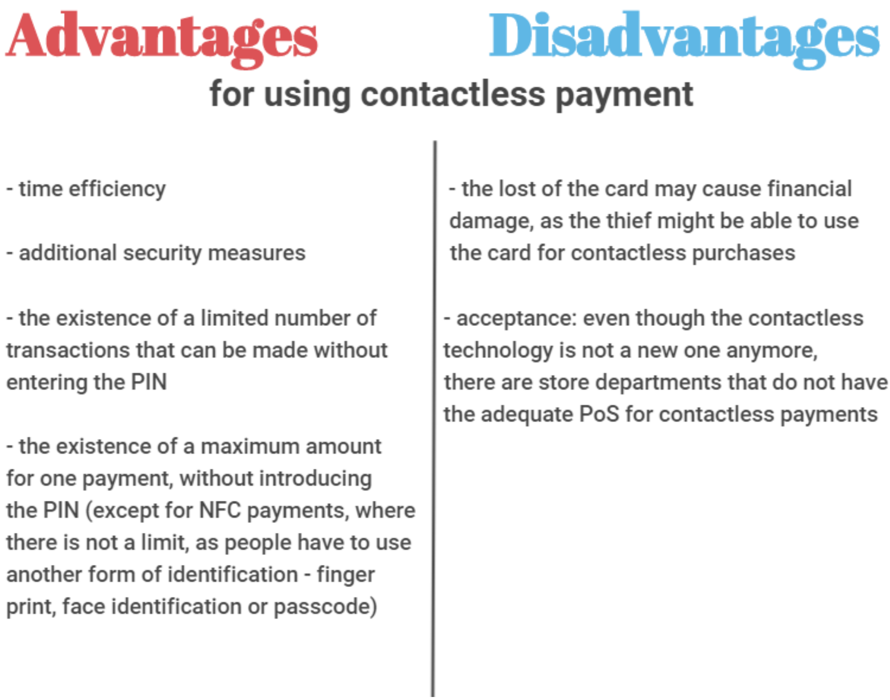
After World War 2, "Charg-It" was the first credit card that was launched by John Biggins, in the year of 1946. The difference was that retail stores had to obtain the validation from the bank before the sale could be finished. Impressed by the success, more banks decided to offer similar products like Charg-It.

During 1970, the credit card industry passed through a significant change, still the electronic authorization was introduced. In this regard, credit cards were endowed with magnetic strips, which certified sellers to swipe the card through a dial-up terminal. This process lasted only few minutes. Something to mention is the important change of the names: BankAmericard became Visa, while MasterCharge became MasterCard. In fact, these name remained the same nowadays.

The first attempts to a simplified payment were done in 2002, when Bank of America launched mini cards that could be attached to the keys or even to the phone. In Romania, BCR introduced card stickers, but only in 2018. Indeed, these cards can be glued on the phones or wherever the owner wants. Besides, Google Wallet and Apple Pay were introduced to the market. This technology is based on Near Field Communications (NFC), a chip introduced to phones. The first attempts in this direction were made by Google in partnership with Mastercard, in 2011. Macy's also became involved in this project, for technology testing. (Garside, 2011)

Using simple terms, contactless technology is based on a chip that is integrated into a credit card, transmitting radio waves. Also, an antenna is introduced into the plastic in order to make a secure connection with the reader. It is called RFID – radio frequency identification technology. The same technology is used for NFC.

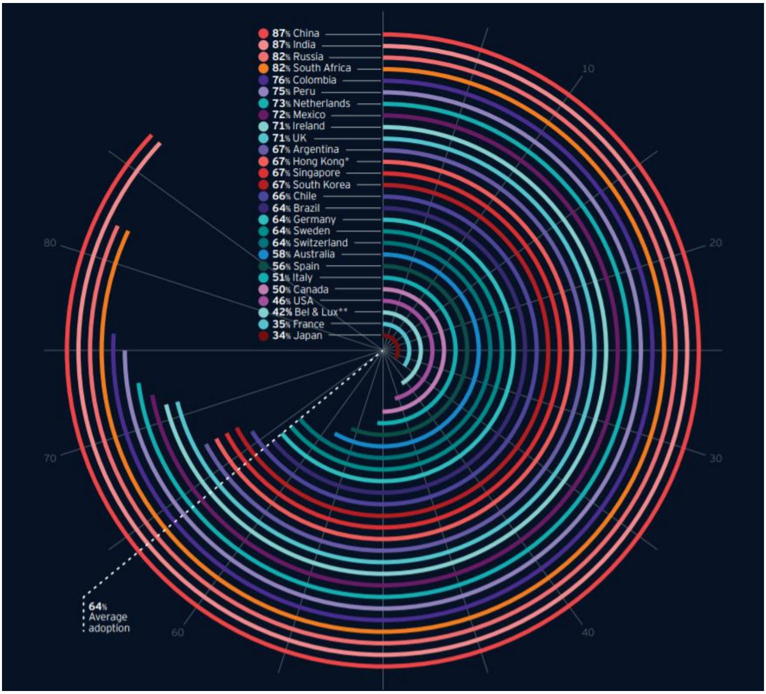
Figure 1. Advantages and disadvantages for using contactless payment



Source: Personal research

4. FinTech Users - Millenials

Figure 2. Consumer FinTech adoption in 27 markets, showed as a percentage of the total population that is digitally active



Source: EY Global Financial Services, *Global FinTech Adoption Index 2019,* 2019, page 7

In the last decades, there has been a fulminant number of new entrants in the technological financial services, operating under the concept of FinTech. Banks and other financial companies felt a pressure from launching more and more FinTech solutions to the market. Thus, some of these that were more traditional begun to adopt FinTech by signing partnerships.

Based on a survey conducted on 10.131 digitally active consumers, EY FinTech Adoption identified the usage of FinTech in Australia, Canada, Hong Kong, United Kingdom, USA and Singapore (September – October 2015). Thus, the research showed the four main categories in which people use FinTech, as it may be seen the figure bellow. (Gulamhuseinwala, Bull, Lewis, 2015)

Figure 3. Main categories for the usage of FinTech, in Australia, Canada, Hong Kong, United Kingdom, USA and Singapore (September – October 2015)

Savings and investments	Money transfer and payments	Borrowing	Insurance
1. Peer-to-peer (marketplace) platforms for investments 2. Equity or rewards crowdfunding 3. Online investment advice and investments 4. Online budgeting and financial planning 5. Online stockbroking or spread betting	6. Online foreign exchange 7. Overseas remittances 8. Non-banks to transfer money	9. Borrowing using peer-to-peer platforms	10. Health premium aggregators or car insurance using telematics intended to lower premiums

Source: Gulamhuseinwala, I., Bull, T., Lewis, S., *FinTech is Gaining Traction and Young, High-Income Users are the Early Adopters*, 2015, Journal of Financial Perspectives, Vol. 3, No. 3, page 5

Millennials were born into a digital world, thus they are more than used to digital products, they are living with them. They adapted to it and it feels like it is a perfectly natural part of their lives. Youngsters do not feel fear of pushing buttons and experiment everything, as it may be put back to the way it was with easy steps. The progress in technology is not aimed necessarily at young people, though they are the first who embrace it. There are also industries in which the changes were made according to the needs of this generation.

In fact, millennials are looking for a new way of banking, investing and financing. The relationship between them and the industries is efficient only by involving what they like – digitalization, as they are digital natives. They are more likely to spend money on expansive purchases, as real estate or cars, instead of saving. During the years, it was observed that millennials are more generous than the other generations. They do prefer to choose something that has impact on a collective. The successful FinTech network of peer-to-peer may be of real interest for youths.

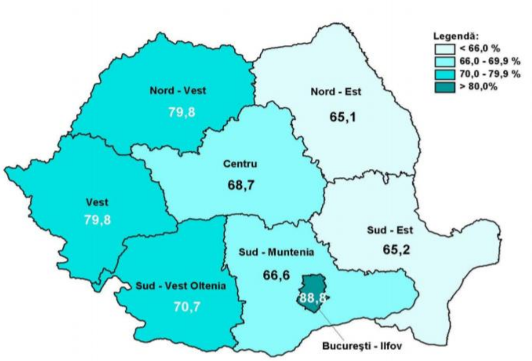
5. The evolving relationship between banks and FinTech

It is not an easy going path to bring together banks with FinTech, but it is one way of pioneering to a great change. It is difficult for a bank to use people with another way of banking, especially the elderly customers. Digitalization is for everyone. But not everyone manages to keep up with it. However, banks with a high appetite for risk have decided to involve in the process of digitalization.

Moreover, banks may lose a number of non-digitalized customers who do not want to digitalize either, but banks may even attract new younger clients, with higher incomes. They are eager to bring digitalization into their daily lives and the bank may benefit from this.

The introduction of FinTech in banking has been a real success in some cases, even in Romania. A good example is the Romanian Commercial Bank (BCR). More than six years ago, George's first line of code was written in the innovation lab of the Erste group, named BeeOne. It was an adequate step considering that nowadays almost every bank launches, buys or works on different digital projects. In this way, it may be captured the niche of millennial clients, who are not willing to go to a branch. It was also an important step for BCR, as over 60% of households in Romania have internet access.

Figure 4. The proportion of households with internet access at home, by region, in 2018



Source: INS 2018 (Survey on access to information and communication technology TIC, April 2018)

In this regard, BCR launched its digital platform – George, which allow Romanians to try a new way of doing banking – easier, more personal and entirely online. It was developed based on several advanced digital research, being created by IT teams, design, psychologists and behavioral sociologists. As a result of the involvement of customers, George has an exceptional level of personalization. In fact, everyone can create their own version of George, tailored to the specifics of his banking needs. George was named after the first aviation autopilot, invented one hundred years ago, by Lawrence Sperry. *Let George do it!* became an expression of confidence that technology can make the life easier. (BCR, 2019)

Hence, George is not only a digital banking platform, but also it is known as *the first intelligent banking* in Romania. George was created with both worlds – the one of FinTechs and the one of established digital banks. There are some functionalities that have to be mentioned: functionalities that relate to UX and try to make the same experience from social media (personalized colors for background, profile picture, personalized pictures for products) and functionalities that integrate AI engines - searching functions as Google; scanning the IBAN from a sheet or a screen; remembering transactions without being saved by the user. In addition, anyone, even those who do not own a BCR account, are able to open a George account, after a remote video identification and a digital signature.

Therefore, this is a concrete example of the possibility of the connection between FinTech and banks. The future belongs to those who enter the market with innovative elements, with technology elements. Millennials are those who are more likely to critic, as they have high expectations and are pursuing their own success. Also, all customers will adapt to the supply of the moment, a digital supply meant to help and to change the lives of consumers in a good way.

6. Conclusions

Observable or not, technological progress is a concept found in everyday life. Outstandingly, technology has succeeded in making everyone's work easier. However, banks are captured by a race to keep up with digitalization, to be up to date with the latest news and to join the trend of the moment. Banks are experiencing a metamorphosis period between the traditional way of doing business to a modern one. In fact, digital banking is one of the latest technological wonders of the last years.

It is believed that the digitalization of the banking system is in process. The banks in the system are targeting to have the highest market share. Each bank is trying to impress the customers with something new, something rethought or something improved. Compared to other countries, Romania is at the beginning of this process, but the context is favorable to a strong future, the perfect environment for a FinTech revolution. Indeed, it comes with real challenges, but also with so many opportunities for those who embrace it.

Currently, customers need to be encouraged to develop financial education skills and to get used to the digital platforms of the banks and to the contactless systems. It is a must not only for the millennials, but also to all the consumers on the market. Mobile payments using NFC technology are the beginning of the era of robotization, the first step in using consumers with what the digital future will mean.

Thus, my advice for the digital banking market is to keep up with the technological innovations. The FinTech revolution is fully active and all banks will undergo some changes because of this. It is their duty to get the best.

In regard to the above-mentioned subject, it is advisable to make a more comprehensive analysis, observing the FinTech in an international environment. Likewise, it may be of real help to discuss the matter of FinTech with specialists. Additionally, It is required to be always up to date with the news regarding this subject as it is an evolving field.

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