

INNOVATIONS IN DIGITAL FINANCE

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Abstract

It is a fact that today we are confronted with the extraordinary impact that digitization plays in developing financial innovations, more precisely, we can say digital finance innovations. We must emphasize that social inclusion and financial progress are the results of the digital sector's digitization trend with a major impact on the work of financial and non-banking institutions. The creation of new distribution models (external agent networks, banks without the branch network), the emergence of new customer access opportunities and back office management are just a few of the financial sector challenges that are in the process continuous innovation and adaptation. The Fintech phenomenon has created new opportunities for customers, namely the rapid identification of financing for the development of their own businesses and the high flexibility of the award conditions. The use of this tool should become more concrete and consistent in Romania, and customers should be educated to master new digital tools. There is no doubt that there is a revolution! In the context of the financial crisis, microfinance continues to grow, providing new digital opportunities for new generation.

Key words: digital finance, fintech, sustainable development, innovation

JEL classification: O16, O31, O42

Introduction

In the past, we witness a wave of industrial technologies, a wave of innovations, which we find more and more in the last year in the financial technology sector. Moreover, financial innovation is directly linked to the phenomenon of social and financial inclusion, as well as to financial innovation in the digital space.

The establishment of new microfinance institutions using blockchain technology, the development of automated savings programs, social money sharing and digital-based investment, while traditional financial institutions conduct a policy of testing new strategies tailored to current, innovative currents.

Starting from these considerations and corroborating with the top 2017 most innovative finance companies (published by the World Economic Forum), we can assert that this paper can also be considered a synthesis of good financial innovation practices.

Materials and Methods

Regarding the methodology of research on financial environment, complexity and diversity of the issues addressed have required the use of methods, techniques, tools, and procedures of scientific investigation and interpretation to which it's attached particular importance:

- Documentation, namely, accessing and studying general and specialized bibliography, domestic and foreign, state approach to knowledge issues investigated financial environment and scientific substantiation of the research;
- Rational method, used as an instrument of knowledge, reflection, analysis, organization, and ongoing scientific research approach;
- Integration of forms, methods, and logic operations research carried out through the use of analysis and synthesis, abstraction and concretization, comparison, generalization, and systematization;
- Statistical methods, through the use of descriptive statistics and statistical analysis;
- Observation method, carried out systematically and analytically;

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- Discussions with experts from institutions and national and international institutions, but also the beneficiaries of financial products and services;
- Data analysis and interpretation, using graphs, tables, and figures to highlight various developments in financial environment.

Using the classic instruments of scientific research, based on analysis and synthesis, induction and deduction, general and particular, and adding modern methods, authors achieved substantial and pertinent analyses and studies on financial environment main ways, both internationally and especially national. Contributions of authors on investigated issue are highlighted during the research work and theoretical and applicative significance value resulting from the conclusions and proposals that they have formulated and promoted.

The research results are presented using formulas, tables, figures, and graphs. The theoretical information needed for the research was taken from literature and specialized works in the field of financial environment investigated, from home and abroad. Statistical information and concrete data on how financial environment works were taken from reports and statistics of institutes involved in financial environment in the country and abroad as well as to public bodies and private specialist.

This method of analysis provides a more rigorous substantiation of the decision-making process and also maximum reduction in uncertainty.

The primary data and information sources have been correlated with the secondary information resources, regards: economic analysis, reports of the local, regional, national and international level, institutions websites, and report analysis (Manta O., 2017).

The research strategy of the researcher based on the use of a mix of information resources in accprding with the reports and analysis: “the action researcher does not become an independent observer, but becomes a participant, and the process of change becomes the subject of research”.

Results and Discussions

Financial innovations must result in a direct connection with society, with the economic environment, and be adapted to our realities and not just to the financial target, which is only the final result.

A first financial innovation in this ranking is Goldman Sachs, the financial innovation in consumer credit. Year 2016, is the year when Goldman Sachs launched its first consumer credit product, namely the digital credit platform called Marcus, having as its primary objective helping people get out of debt. Although at the level of fintech companies, the lending policy for the most in need is the main objective, however, more affordable loans, but they have failed to promote, but Goldman has been able to give very large amounts to those in debt using this Marcus digital platform. The financial company became public in 1999 and underwent several changes, passing through several events, namely insider trading, investor fraud and the contribution to a massive financial crisis. And yet, as a result of this new innovation, it has succeeded since 2017 that stock prices have come close to the pre-crisis level following Marcus's launch and a minimal savings account, making Goldman a remarkable new player in the banking market consumers in debt.

A second financial innovation is given by Digit, specifically financial digitization. Digit was launched in 2015 as a chatbot SMS and helps the young generation to access the money-saving service by automating the process. The process consists in linking to a verification account, analyzing spending habits, and then saving small amounts of cash every few days, storing them in a zero interest savings account (the Digit founder hopes to ultimately provide consumer interest in their accounts). This chatbot sends text back to the account holder with updated savings information. Users can write Digit text to transfer money from the Digit Savings account to their regular checking account. Starting in 2017, Digit helped its users save more than \$ 350 million as of February 2015. Digit competes with a number of other companies that are trying to automate money management, including Acorns, which exchanges and places it in an investment account; and Qapital, an automated saving tool similar to the one that then-then-that.

This year, Digit has evolved from just a chatbot SMS to an iOS and watch OS app, where users can view their transaction and savings histories as well as change their settings. At present, we are

increasingly witnessing such applications in the financial field that are in the interest of the millennium. Among the many applications that occupy this space, Digit seems to be the most popular. The investment in the development of this application has been raised to \$ 36.3 million in capital and processes an average of \$ 20 million per month for its users.

The third financial innovation in 2017 was ranked as IEX. IEX, which aims to combat high-frequency trade, traded on a computer. The new exchange, co-founded by Brad Katsuyama, aims to compete with the Nasdaq and NYSE and should provide a fairer balance for all who are traded on the market by using a "speed hit" that essentially forces high-frequency trading machines the same rate as the other players. The existence of this new type of trading / exchange and its approval by the Securities and Stock Exchange Commission has had a major impact on the scholarships and shook the industry. Nasdaq threatened to sue the SEC prior to its decision, and several representatives of high-frequency trading firms tried to discourage the SEC from assigning the IEX exchange status. But IEX prevailed. So far, it has an average market share of 1.95%.

IEX rose slowly. It started in 2016 by slowly adding stocks to its market, especially by adding the least likely to be traded, to ensure that the exchange has no problems. In November 2016, the company hired Sara Furber, who previously served as General Manager at Morgan Stanley, to be the head of the exchange. A number of companies have expressed an interest in being listed because of frustrations over competition with high-frequency traders. IEX intends to allow companies to include the list starting with 2017.

The fourth financial innovation in 2017 is Ethereum. To create a more favorable blockchain for Ethereum developers. Ethereum is a block-based decentralized platform that allows smart contracts using an element called ether. Anyone can create programs on the network and for this reason the ecosystem has attracted the attention of Microsoft, Imogen Heap and Deloitte. In 2016, Microsoft launched the Ethereum Consortium Blockchain Network on the Azure platform to allow platform companies to set up their own private blockchain. But this was not the only activity on Ethereum in 2016. One of the most prominent applications in the network was DAO, which earlier this year raised a \$ 150 million investment fund. This investment was forced by a hacker, causing the platform to divide several times in an effort to limit the evil actor's ability to steal funds (Manta O, 2017).

While DAO's failure has caused concern among users, Ethereum is still ready for an interesting growth in 2017. In December 2016, Ethereum, Consensus, was selected by the United Arab Emirates Accelerator Fund to participate in a program 12 weeks and eventually a pilot project for Dubai. It's still early days for the Ethereum block, but there seems to be a great potential for corporate adoption.

The fifth financial innovation was given by Ant Financial. For the banking sector on economic growth in rural China. Former AliPay, Ant Financial Services is a spin-off of Alibaba in China and similar to PayPal in the U.S. The organization has expanded beyond mobile wallet Alipay to include an online lending platform, MYbank, and an investment fund, Yu'e Bao. In 2016, Ant Financial won a round of financing of \$ 4.5 billion and purchased software verification Eyeverify. The company has 450 million users and processes 58% of all online payments in China. While competitor Tencent has managed to separate the market by developing the WeChat Pay platform, Ant Financial remains ahead, partly due to its expansion into new products and financial regions, as well as partnerships with the Didi Chuxing platform and food delivery service.

In 2016, Ant Financial invested in a used car dealer, Alibaba's online ticketing platform, a wealth management company, a food delivery service, and a large Yum fast food conglomerate! China. The company made foray into India by using an existing partnership with Uber, so customers can use both Alipay and Paytm, a company that has invested in two years ago, instead of a credit card to pay for walks. In Europe Agreement with terminal Ant Financial German Wirecard payment processing allowed its acceptance in some retail stores. Also made widely informed traders, giving them customer data in exchange for acceptance of Alipay. While continuing to expand beyond China, the company is preparing to become public in 2017.

The sixth financial innovation in 2017 is Quantopian. For agglomerated investment algorithms. Quantopian is an investment management firm that allows 100,000 users (or "quants") to write their own investment algorithms and offer licensing agreements to those who fit into its investment strategy. (In 2016, he offered 20 such transactions.) In 2017, Quantopian plans to launch its own investment fund.

The seventh financial innovation in the ranking is Robinhood. To add premium benefits to trading, Robinhood is a US stock brokerage that offers free deals. It was founded in Palo Alto, California in 2014 by two former roommates in Stanford, Baiju Bhatt and Vlad Tenev. The various trading commissions often hamper the entry of young people to the market, but by eliminating taxes and streamlining the process, Robinhood hopes to open a new demographics trading. The tool is the fastest growing brokerage in history and was the first app to win an Apple Design Award.

In 2016, Robinhood launched a subscription model, Robinhood Gold. For US \$ 10 per month, users receive instant deposits (without a waiting period of three days) and can trade just prior to opening the market and immediately after it closes. This privilege is designed to attract more experienced merchants from other brokers. The company has expanded into China through a partnership with Baidu, allowing Chinese citizens to buy and sell stocks.

Eighth financial innovation is Venmo. For expanding peer-to-peer transactions. In 2016, PayPal decided to eventually expand Venmo beyond peer-to-peer. Users can now use Venmo to make purchases in other mobile applications. The feature was launched to select applications including Munchery, Gametime, Panda Parking, Priv and Poshmark, and Venmo is planning a broader expansion soon. This is the first attempt to make Venmo a PayPal money generator. In 2016, Venmo launched a national ad campaign and had a total volume of \$ 17.6 billion.

When Venmo debuted in 2009, it was not the first mobile P2P payment option available, but has since become one of the most popular. Venmo was acquired through the Braintree digital payment process in 2012, which PayPal bought it the following year. Venmo is for users because it offers a quick and fun way to send money regardless of your bank account. Exchanges can be private or public; users are asked to include emoji transaction descriptions, which then friends can "like" or comment on the social feed of the app.

The ninth financial innovation is Visa. To empower payment by wearing. In 2016, Visa launched a variety of experimental initiatives, including a mobile white app for banks (with a pay-to-pay similar Apple Pay) and real-time payments through Visa Direct. Stripe, PayPal and ClearXchange integrated with the Visa platform to send and pay real time payments - Visa response to the Venmo experience. Perhaps Visa's most interesting experiment was in baking technology. During the Olympic Games in 2016, Visa handed out sporting spins to sponsored athletes. He also sold a watch and a Swatch watch with the same scanning-like capability as the ring. In August 2016, the credit card company revealed to the NFC Ring audience. Similar to the Olympics concept that can be worn, the NFC ring allows consumers to shop at field terminals close to the field, simply by lifting a joint.

Visa has also begun to experiment with the block of flats in Europe. In collaboration with the BTL group, Visa will explore how to use this technology to make interbank transfers more efficient both internally and internationally.

Forerunner Ventures is the tenth financial innovation in 2017. Forerunner Ventures is a women-led company that has made great bets for e-commerce and consumer brands. She was the only company to invest in both the Dollar Shave Club and Jet.com, both offering billions of dollars in 2016. In an interview with Fast Company in 2015, founder Kirsten Green explained that he was choosing companies based on the experience they offer, rather than on the product they produce or on their ability to offer a competitive price. She is looking for companies that have unwavering attention to detail: "how customers feel when landing on the home page, taking into account what the package looks like when it arrives in the mail," she said. Forerunner also made the predictive bet that with the passage of time, big brands and retailers would pay a fat price to companies that have a digital business. This idea is gathering now.

The top 10 financial innovations were presented in The 20 Most Innovative Companies In Finance 2017, World Economic Forum 2017 and The Fast Company, <https://www.fastcompany.com/3067885/the-10-most-innovative-companies-in-finance-2017>.

Conclusions

An important aspect is to create innovative models of finance area and training of human capital involved in providing financial services and financial education of those who accessed financial innovative applications. European and global level is currently trying to achieve special financial

applications, mainly in credit and finance areas. These concerns and decisions can directly influence the development of activities in these areas through access to application from milieniens.

We are at the stage where we are obliged to approach decisions leading to the reestablishment of new principles of lending institutions to ensure local stakeholders and vital sectors and localities to strengthen economic welfare. It is the establishment of banking institutions to finance economic entities with legal personality: banks, in virtual areas, where crediting legal entities and individuals active: banks to finance exclusively educational or health institutions in areas. Capital required to set up such institutions should be ensured through government financial contributions for which payment to be repaid in time. To achieve this goal of establishing a national system of finance areas should be started from what was good in the credit and financial system areas in the world in the interwar period, especially from existing financial technology models today in European Union, United State of America and China.

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