Economics and Management
ISSN: 2367-7600; 1312-594X
Volume: XV, Issue: 2, Year: 2018, pp. 20-26

ФИНТЕК В МОДЕРНАТА БАНКОВА ИНДУСТРИЯ

Александра Станковска, Савица Димитриеска, Елизабета Стамевска

FINTECH IN MODERN BANKING INDUSTRY

Aleksandra Stankovska[1], Savica Dimitrieska[2], Elizabeta Stamevska [3]

Received: 30.09.2018, Accepted: 15.10.2018

Abstract

In this research paper we will explore the current wave of Artificial Intelligence and FinTech in modern banking industry. FinTech is the new gold rush for investors, growing from 10% in 2016, to a staggering $23.2 billion, with China and USA leading the market. This boost is powered by the growing capabilities of machine learning and artificial intelligence. It is an idea whose time has come, as the computational and storing capabilities available today can record and process the impressive quantities of big data necessary to fuel the algorithms.

The future of banking industry will be heavily influenced by emerging FinTech companies and artificial intelligence technology applications setting the stage for increasing competitiveness among the industry's leading giants. In the next decade, artificial intelligence will help financial services companies maximize resources, decrease risk, and generate more revenue, in the trading, investing, banking, lending, and FinTech verticals. In the news, financial technology is described as "disruptive", "revolutionary", and armed with "digital weapons" that will "tear down" barriers and traditional financial institutions (World Economic Forum 2017).

Keywords: *FinTech, Artificial Intelligence, banking industry, financial institutions*
JEL Codes: *F65, G21, O16*

1. Introduction

Since the internet revolution and the mobile internet revolution, however, financial technology has grown explosively, and FinTech, which originally referred to computer

[1] European University-Republic of Macedonia, Faculty of Economics, Full-time professor in Corporate Finance, PhD, Aleksandra.Stankovska@eurm.edu.mk
[2] European University-Republic of Macedonia, Skopje, Faculty of Economics, Full-time professor in Marketing, PhD, Savica.Dimitrieska@eurm.edu.mk
[3] European University-Republic of Macedonia, Skopje, Faculty of Economics, Assoc. Professor, PhD, elizabeta.stamevska@eurm.edu.mk

technology applied to the back office of banks or trading firms, now describes a broad variety of technological interventions into personal and commercial finance. Every FinTech application or new piece of banking software must be accompanied by bold claims about its use of Artificial Intelligence, even though in many cases they are simply upgraded algorithms.
FinTech is the buzzword within the banking industry. It refers to the use of technology across all financial services functions. For instance, the simple task of replacing paper-based processes with software and applications is an example of FinTech at work.

Artificial Intelligence is taking the financial services industry by storm. Almost every company in the financial technology sector has already started using Artificial Intelligence to save time, reduce costs, and add value. In the next decade, Artificial Intelligence will help financial services companies maximize resources, decrease risk, and generate more revenue, in the trading, investing, banking, lending, and FinTech verticals.

FinTech is a portmanteau of financial technology that describes an emerging financial services sector in the 21st century. Originally, the term applied to technology applied to the back-end of established consumer and trade financial institutions. Since the end of the first decade of the 21st century, the term has expanded to include any technological innovation in the financial sector, including innovations in financial literacy and education, retail banking, investment and even crypto-currencies like bitcoin.

Financial technology is broadly defined as any technological innovation in financial services. Those engaged in the industry develop new technologies to disrupt traditional financial markets. Various start-ups have been involved in the process of creating these new technologies, but many of the world's top banks including HSBC and Credit Suisse have been developing their own FinTech ideas as well. Fintech companies utilize technology as widely available as payment apps to more complex software applications such as artificial intelligence and big data. (CNBC)

2. Methodology

In the research and development of this paper a combination of qualitative and quantitative methodology has been implemented. To achieve the object of this paper, the Artificial Intelligence & FinTech data has been collected.

3. Analysis and discussion

Previously, FinTech was mainly used for back-office functions by leveraging software to help bank personnel handle accounts, execute transactions, manage customer databases, etc. Today, however, FinTech has transformed how banks operate. No longer relegated to the gloomy corners of back-offices, FinTech has taken centre stage by making itself indispensible to customer-facing processes. Every digital transaction, be it online shopping, foreign currency exchange, stock investments, or money transfers, is possible at our fingertips thanks to FinTech.

FinTechs provide indeed the same services as banks, possibly more efficiently because of technologies, but in a different and unbundled way. For example, like banks, crowdfunding platforms transform savings into loans and investments. Yet, differently from banks, the information they use is based on big data not on long term relationships; access to services is only decentralized through internet platforms; risk and maturity transformation is not carried out; lenders and borrowers or investors and investment opportunities are matched directly. There is disintermediation in this case. These are pure FinTech activities. However, these pure FinTech unbundled activities have limited scope. For example, it is difficult for platforms to offer to their clients diversified investment opportunities without keeping part of the risk on their books, or otherwise securitizing loan portfolios (Navaretti, Calzolari, Pozzolo, 2017).

According to EY's Fintech Adoption Index, a third of consumers worldwide are using two or more fintech services, with 84 percent of customers saying they are aware of fintech (up 22 percent from the previous year).

Global investment in FinTech ventures tripled to $12.21 billion in 2014, clearly signifying that the digital revolution has arrived in the financial services sector. It is still unclear whether this presents more of a challenge or an opportunity for the incumbents in the industry. But established financial services players are starting to take bold steps to engage with emerging innovations (Accenture, 2015).

Traditional banks can help FinTechs to scale up their business by providing financial infrastructure, capital, and access to their huge customer base. Also, FinTechs can offer innovation and disruptive technologies to banks, which can help them enhance the banking experience for customers and banks will be able to deliver new value and services with faster time to market, reduced costs, and improved return on investments. Collaboration with FinTechs provides a more conducive environment for innovation for banks free from constraints, which results in increased customer experience and often in a reduction of cost as well.

Fintech startups received $17.4 billion in funding in 2016 and were on pace to surpass that sum as of late 2017, according to CB Insights, which counted 26 FinTech unicorns globally valued at $83.8 billion. North American produces most of the FinTech startups, with Asia following. As the rise of FinTechs has had a significant impact on the industry on both technology and the business front, there is a growing trend of banks focusing on innovation by leveraging new technologies such as blockchain, biometrics, and robotic process automation.

Some of the most active areas of FinTech innovation include or revolve around the following:

- Cryptocurrency and digital cash;

- Blockchain technology;
- Smart contracts;
- Open banking;
- Insurtech;
- Regtech;
- Robo-advisors;
- Unbanked/underbanked;
- Cybersecurity.

Within the broad FinTech category, FinTech banks follow one specific type of business model. The ECB considers a FinTech bank to be one which has “a business model in which the production and delivery of banking products and services are based on technology-enabled innovation”, as specified in our guide to the assessment of licence applications from fintech credit institutions.

The central role played by technology is what distinguishes FinTech bank from a traditional one. However, many traditional banks are also adopting FinTech solutions and in some cases are partnering with – or even acquiring – FinTech firms to enhance their innovation capabilities (European Central Bank, 2018).

Today, Artificial Intelligence is moving beyond process improvement, becoming the new user interface (UI), underpinning the way financial organizations transact and interact with systems. Machine learning will adapt to data and interactions to improve areas like fraud detection, and will leverage Artificial Intelligence -enabled tools (like digital assistants and chatbots) to create more contextual interactions with customers. According to the Accenture research, Artificial Intelligence will help usher in a new era in digital banking, both in the front- and back-office (The Financial Brand, 2018).

✓ 82% of U.S. bankers (79% of global bankers) believe that Artificial Intelligence will revolutionize the way banks gather information and interact with customers;

✓ 82% of U.S. bankers (79% of global bankers) expect Artificial Intelligence to accelerate technology adoption throughout the organization, providing their employees with the tools and resources to better serve consumers;

✓ 73% of U.S. bankers (78% of global bankers) believe that Artificial Intelligence will enable simpler user interfaces that will help banks create a more human-like customer experience;

✓ 72% of U.S. bankers (76% of global bankers) believe that within 3 years banks will deploy Artificial Intelligence as their primary method for interacting with customers;

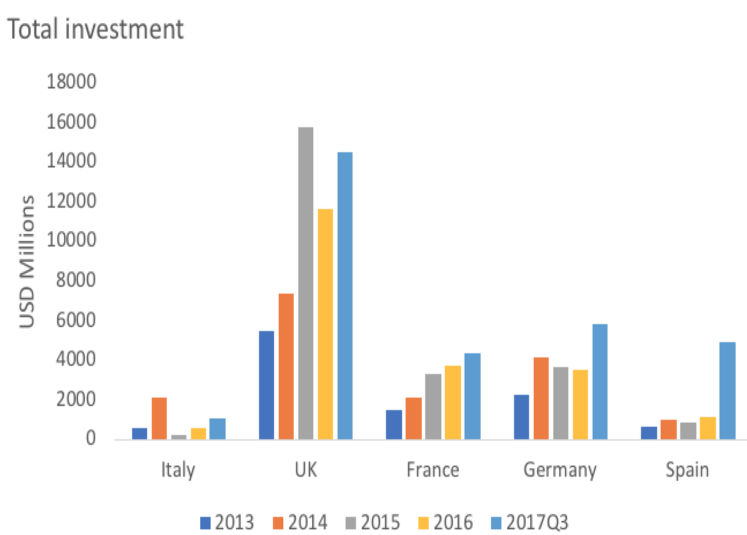
✓ 29% believe it is extremely important to offer their products/services through centralized platforms/assistants or messaging bots.

Although investments in FinTech have been expanding very rapidly in financial markets (see Figure 1), their potential impact on banks and financial institutions is still far from clear.

The rate of investment in FinTech is growing by 45 per cent annually, with £10.3 billion being invested into startups within a year. Procedures within the banking industry are likely to change in the future, with replacements including peer-to-peer (P2P) models and crowdfunding.

With FinTech growing more by the year, startups are now finding a way to bypass the bank's procedures and provide a more efficient service to savers and borrowers. As FinTech disrupters are untied with regulators, legacy IT systems and branch networks, they can provide a financial service that's of a higher quality. P2P models are being used by a range of startups to improve student finance and to make life easier for specialist lenders. FinTech makes the process of borrowing money easier for everyone within the financial industry, as P2P lenders approve loans within a miniscule 24 hour period with the help of a myriad of data sources (Business Matters, 2017).

Figure no.1 Investment in FinTech companies is increasing in all major European countries although there is much cross-country heterogeneity



Source: https://voxeu.org/article/fintech-and-banks

FinTech usually references an organization where financial services are delivered through a better experience using digital technologies to reduce costs, increase revenue and remove friction.

A basic example of a FinTech offering is the mobile banking services that most traditional banks offer. More commonly, FinTech refers to non-traditional financial offerings such as PayPal, Zelle and Venmo in the U.S. and digital-only Starling Bank, Monzo and Revolut in the U.K. (Marous, J., 2017).

4. Conclusion

Fintech has become a buzzword in financial circles. Fintech players the world over are challenging the status quo of the financial services industry by bringing in a fresh take on problems faced by customers, as seen through the lens of technology. Fintech, shortened from financial technology, is assumed to be a modern movement, yet the use of technology to assist financial services is by no means a recent phenomenon. Financial services are an industry that introduced credit cards in the 1950s, internet banking in the 1990s and since the turn of the millennium, contactless payment technology.

The future of finance will be heavily influenced by emerging FinTech companies and Artificial Intelligence technology applications setting the stage for increasing competitiveness among the industry's leading giants. Traditional banks need to deal with increased competition from FinTechs and rising customer expectations, which is brought about by convenience and availability of advance technologies

REFERENCES

Accenture, Forging Fintech Future Through Innovation – Accenture Trends, Available at: https://www.accenture.com [Accessed 22 Aug 2018]

Brett King, Bank 3.0: Why Banking Is No Longer Somewhere You Go But Something You Do, Marshall Cavendish Business, Singapore, December 26, 2012.

Business Matters (7 Nov 2017), The Importance of FinTech in finance, Available at: https://www.bmmagazine.co.uk/in-business/finance/importance-fintech-finance [Accessed 18 Jun 2018]

Chris Skinner, Digital Bank: Strategies to Launch or Become a Digital Bank, Marshall Cavendish Business, Singapore, September 7, 2014.

CNBC**,** Everything you've always wanted to know about fintech, Available at: https://www.cnbc.com/2017/10/02/fintech-everything-youve-always-wanted-to-know-about-financial-technology.html [Accessed 10 Sept 2018]

Don Tapscot & Alex Tapscott, Blockchain Revolution, USA, 2018.

European Central Bank, Banking Supervision, What are fintech banks and what impact will they have on financial service? Available at: https://www.bankingsupervision.europa.eu/about/ssmexplained/html/fintech.en.html [Accessed 13th Aug 2018]

Marous, J., The Future of Banking: Fintech or Techfin?, Available at: https://www.forbes.com/sites/jimmarous/2018/08/27/future-of-banking-fintech-or-techfin-technology/#14138e85f2d5 [Accessed 8 Aug 2018]

Navaretti, G B, G Calzolari and A F Pozzolo (2017) "FinTech and Banks. Friends or Foes?", *European Economy* 2017(2), Available at: https://blog.iese.edu/xvives/files/2018/02/EE_2.2017.pdf [Accessed 15th Aug 2018]

The Financial Brand, Banking Must Move From Mobile-First to Al-First, Available at:https://thefinancialbrand.com/65338/banking-ai-ui-artificial-intelligence-data/?internal-link [Accessed 31 July 2018]

World Economic Forum (2017), Beyond FinTech: A pragmatic assessment of disruptive potential in financial service, Available at: https://www.weforum.org/reports/beyond-fintech-a-pragmatic-assessment-of-disruptive-potential-in-financial-services [Accessed 18 Aug 2018]

https://sigmoidal.io/real-applications-of-ai-in-finance

https://thefinancialbrand.com/65338/banking-ai-ui-artificial-intelligence-data

https://thefinancialbrand.com/72653/artificial-intelligence-trends-banking-industry

https://www.bmmagazine.co.uk/in-business/finance/importance-fintech-finance/

https://www.forbes.com/sites/jimmarous/2018/08/27/future-of-banking-fintech-or-techfin-technology/#14138e85f2d5

https://www.marutitech.com/ways-ai-transforming-finance