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Particularities of Digital Transformation in Financial Organizations

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Abstract:
The global phenomenon of the financial fields digitalization along with the generalized and unsystematized access to information via the Internet are making a revolutionary progress in the organization of economic sectors, of which, certainly, the financial industry makes no exception. The extreme plasticity, as well as the globalization of financial services, together with the successive technological revolutions, bring opportunities and also challenges for the continuous adaptation of the financial policies of private companies or national public institutions.
The presence of the emerging technologies and virtual financial products offers consumers greater freedom, higher independence from the legislative regulations of economic markets, while also trying to address the issue of data security and confidentiality and increased confidence in those products. In recent times, emerging financial technologies called Fintech have continued to reshape the financial services sector in an unprecedented way. New start-up companies manage to provide innovative technologies in the financial market, challenging the sustainability of classic business models in the field and causing disruptive effects on existing financial institutions and business methods.
These progressive developments not only pave the way for new business openings, but also bring threats for traditional financial institutions. They can provide alternative solutions and new business models that change the way this industry works and provide customers faster, cheaper, easier-to-understand and to use services in a more transparent and secure way.
In this new environment and under the influence of this disruptive trend, the management of financial organizations is confronted with strategic and managerial implications through which it is forced to identify and understand the effects of this phenomenon, implement corrective measures and adapt quickly and efficiently to new market conditions.

Keywords: *Fintech; Techfin; Bigtech Financial; Disruptive Start-ups.*

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1. Introduction

In the last decade, the increased need for independence and financial control have led to a real revolution through what is called Fintech, which tends to create a new exceptionally dynamic financial services with high degrees of creativity. In other words, Fintech provides products and services characterized by a complex and sophisticated technology compared to what existed at that time in thefinancial markets. However, due to the vulnerability of this multitude of new companies offering innovative Fintech business models, it is absolutely vital, for the financial sector and for the entire economy, to create comprehensive studies that assess from different perspectives the structure, trends and needs of financial markets.

Progressively, free access to information continues to produce a current of democratization of financial markets (Burlea-Șchiopoiu and Bălan, 2021). Credit card creation, e-stock trading, online commerce hasled the way for new generations of Fintech based on liberalized access to the Internet's information and communication resources through artificial intelligence, blockchain technologies, smart mobile communication or virtual robots.

The aim of this article is on the one hand, to carry out a critical analysis of the conceptual elements of the Fintech phenomenon by exploring this highly dynamic field of financial technologies applied in industry and, on the other hand, to analyses the impact of Fintech on the financial sector and in particular on the traditional banks. It is thus intended to increase the level of expertise in the field of Fintech, by studying the phenomenon as representing a symbiosis between technology and finance. The highly sophisticated level of information, which underpins the various technologies and financial products (peer-to-peer transactions, crowdfunding, smart contracts or robo-advisers, for example), challenges whether Fintech is developing as a new discipline or is just a new super-evolved form of current financial technologies. It is increasingly revealed, however, that a holistic study of the Fintech phenomenon requires an interdisciplinary approach at various levels: financial, management, information technology, law and cognitive behavioral psychology.

2. Concepts and classifications of financial technologies

The term Fintech represents an abbreviation from financial technology, a designation that in turn combines the terms financial services and information technology. The name Fintech probably first appeared in the 1990s, given a scientific research project initiated by Citicorp to facilitate technological cooperation efforts (Hochstein, 2015). There is currently no consensus on a single definition of the term Fintech (Schueffel, 2016), which can be defined as the use of technological innovation in the design and delivery of financial products and services. In his study, based on more than 200 publications and covering more than 40 years, Schueffel (2016: 45) proposes the following definition for Fintech that could coagulate the purpose and amplitude of the phenomenon: *"A new financial industry that applies technology to improve financial activities".*

From a legislative perspective, we refer to the Basel Committee for Banking Supervision (BCBS) which, after analyzing financial stability, the risks and benefits of innovation in financial technology, decided to use the definition officially used by the Financial Stability Board for Fintech: *"Technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of*

financial services". According to BCBS this an appropriate definition based on the fluency with which innovations and new advances in industry succeed each other (BCBS, 2018: 42).

Developments such as Artificial Intelligence (AI), Bigdata or tools that include machine learning to increase portfolio returns, assess investment opportunities and mitigate risks, prove that in finance, technology continues to revolutionize. Fintech has changed the financial services industry to an unprecedented extent, giving rise to new systems for financial advice and planning, lending and payments (Burlea-Șchiopoiu, Brostescu, Popescu, 2021). These effects, with current and future impact on asset management, trading and quantitative methods, are recognized by financial industry organizations such as the CFA Institute, which introduces in its curriculum for financial analysts' certifications, the above Fintech topics in addition to: algorithmic trading, blockchain, robo-consulting or data science (CFA Institute, 2020).

Financial markets are deeply metamorphosed by Fintech technology that generates new opportunities within the industry for investment, business models and revenue sources. Some of the existing market protagonists (banks, stock exchanges, brokers, dealers or asset managers), due to the pervasiveness of Fintech technology, have come to regard themselves as companies operating in the field of technology. They earn revenue by selling their technology to their customers and are increasingly relying on it. The effects of using Fintech have inevitably led to gain competitive advantages and to the invention of new business models (DeCovny, 2016: 26-29).

The framework and perspective of financial careers are shaped by the changes brought by these innovations as presented by the CFA Institute report of May 2019 (Investment Professional of the Future). This report shows the change in organizational roles, skills and cultures in the context of Fintech. Cybersecurity and artificial intelligence are the areas where Fintech's most sought-after careers exist, and blockchain development and quantitative analysis are most relevant to the asset management industry. Therefore, it takes a focus on disciplines such as computer science and programming, along with mathematics and data science, in order to pursue a career in Fintech (Cao, 2019: 22).

Facilitating access to financial products and markets, as well as increasing process efficiency and decreasing costs have surged investor attraction to Fintech. In addition to electronic payments and money transfers, the following Fintech development areas are applicable to the financial industry (Preece, 2016: 52-53):

- automation of financial consulting services (robo-advisers), high-frequency trading and technologically supported insurance (Insurtech),
- virtual currencies (using blockchain technology),
- digital capital raising platforms (including crowdfunding platforms and sharing economy), which directly link investors and entrepreneurs, replacing the role of banks in this process.

Financial products and services of the most diverse can be created within these areas of development, including novel models such as student credits for example. Student loans are normally brokered by banks or financial institutions which, due to the conditions offered and the rigid approach, are prone to default or ineligibility of the customer and thus failure to grant credit (Barnes, 2012: 37). But in the case of students of the same university institutions, regardless of generation, the confidence coefficient that is created between them is not taken into account in the traditional analysis. This confidence can be harnessed to generate eligible and low-cost student loans. A Fintech

company can capitalize on this and create a new product by coagulating alumni groups to lend to students. In addition to solving the eligibility problem, the risk of default is also reduced, as they are less likely to default on loans made to them by graduates of their own faculty (Barnes, 2012: 37).

Although start-up companies are generally linked to the term Fintech, this term is not limited to these types of companies and even non-financial institutions (such as those operating in technology, e-commerce or telecommunications) transform their business models using modern and advanced technology and enter the financial services market. More recently, this kind of companies (such as: Amazon, Apple, Facebook, Google, Microsoft, Samsung, etc.) accesses the financial services industry offering various tools for payment, lending, etc. (Zetzsche et al., 2017: 4). It should be noted that certain studies distinguish between the start-up companies that they incorporate in Fintech and the mature ones already in the market that open their perspective to financial services, such as those listed above and which they include in the category called Techfin (Zetzsche et al., 2017: 5).

Three categories of players are currently active in the market using Fintech in the financial field: start-up companies called Fintech themselves, companies that are already active in the technology field and want to enter the financial market, called Techfin (or Bigtech) and traditional financial institutions (Tanda-Schena, 2019: 8). But there are some critical distinctions between the strategies and business models of start-up firms, those called Techfin, and the traditional ones. For example, traditional financial companies may decide to partner with Fintech firms, buy them in part or in full, or simply compete with them (Tanda-Schena, 2019:9).

The core business for a Fintech company is to provide financial services. These start-up companies identify weaknesses in the financial services already offered in the market, something that existing players are not doing well or not doing at all (due to cumbersome regulations or lack of customer orientation in a digitalized way), and seek to find solutions to these weaknesses through service innovation, with the aim of selling those services to customers directly or throughout existing companies or to achieve an exit from the business through their acquisition by mature financial companies (Zetzsche et al., 2017: 9-10).

On the other hand, Techfin companies have the technological fields, online sales or social networks as their core business, and use their extraordinary potential driven by huge data resources, digital platforms and expertise in the fieldto disrupt the financial industry. Through their customer databases, technologies and brands seek to expandtheir business and access the financial services market (Zetzsche et al., 2017: 10-12).

3. The evolution of financial technologies and the current context

The recent evolution of Fintech is represented by start-up and technology firms (mainly due to their ability to use advanced and modern technology), but inevitably includes existing suppliers of financial products and services such as banks and insurance firms (Kou, 2019).

- Fintech 1.0 (1866-1967) - based on long-distance telephone and telegraph communications:

From a technological perspective, the invention of telephone and telegraph are considered to be the main revolutionary impact to the financial markets in the second half of the 19th century. It was not until 1967 that Barclays Bank used the first ATM

which marked the beginning of the evolution of financial technology, and during the same period the first credit card (1950) was introduced (Lerner, 2013: 39). From the mid-19th century to 1967 the financial services industry was predominantly analogue and was named Fintech 1.0, although some researchers prefer to differentiate the period 1850-1980 as Fintech 1.0, while others prefer to include the credit card era in Fintech 2.0 (Bhasin, 2018: 5664).

- Fintech 2.0 (1967 – 2008) - marks how Internet is revolutionizing the way banks operate:

Wartime technology is used after war for communication in the financial industry. Before the 2008 financial crisis Fintech existed through the services provided by financial institutions and through the investments, they made in the field of internet banking. Information technology exploded during this period with the use of the personal computer, the period being mainly associated with the digitalization of financial services. The transition has been made during this period from paper-based systems to electronic exchanges and virtual financial markets characterized by algorithmic and high-frequency trading. This trend began with NASDAQ, the first fully electronic stock exchange, with major consequences including the collapse of the 1987 stock market or the financial bubble dot.com followed by the 2001 crash. All this has led to the need for specific regulations in this virtual realm (Arner, Barberis, Buckley, 2016).

- Fintech 3.0 (financial crisis of 2008 to date) – characterized by the new trend where start-up companies and non-financial firms access the financial services industry:

While in the Fintech 2.0 period the focus was on how transactions are executed, in the period that started after the 2008 financial crisis (which functioned as a catalyst towards Fintech 3.0), the distinction is made between who executes these transactions in the market (e.g., start-up companies or existing players in the financial services market). This new trend is mainly characterized by the attempt of start-up companies to disrupt, compete, do business with or be acquired by existing financial institutions. Because of this, and combined with the regulatory gap left by the financial crisis, the latter are forced to focus on investments in technology in order to be able to cope with this new competition (Zetzsche and al., 2017: 15).

In recent years the development's speed of Fintech companies has been impressive. Global investments in Fintech in 2020 reached 2,861 transactions with a total of US$105.3 billion, going up to even higher values in 2018 and 2019, with 3,712 transactions and a total of $145.9 billion and 3,472 transactions respectively with a total of $168 billion (Global investments in Fintech have decreased from $168 billion in 2019 to $105 billion in 2020 mainly due to lack of mergers and acquisitions, such as World Pay acquired by FIS) (KPMG International, 2021).

The main feature of the current stage in the evolution of Fintech is the influence of large digital companies such as Amazon, Apple, or Google (hereinafter defined as Techfin), and their ambivalent involvement in Fintech. The dual ability to access massive consumer-specific databases, as well as to provide and control the interface with potential customers, can be both a factor of progress (through the possibility of offering customized products and therefore an optimized choice), but also a disruptive one (through the great possibility of influencing customers in terms of the products offered). Issues related to the captivity of clients and the possibility of not keeping confidential

the personal consumers' informationwill need to be reinforced (Navaretti, Calzolari, Pozzolo, 2017: 17).

4. Factors that influenced the emergence of Fintech

Although the visibility of the Fintech phenomenon began to increase significantly only from 2015 (Schueffel, 2016: 34), investment in this industry gained a dramatic increase seven years earlier, starting in 2008, after the great financial crisis (Kou, 2019). This was the combined effect of several causes generated by the crisis as can also be seen from Table 1:

- *The labor market:*a significant share of skilled staff from financial industry lost their jobs during the financial crisis and they sought new positions to capitalize on their education leading to the evolution of Fintech (Bhasin, 2018; Idowu, Vertigas, Burlea-Șchiopoiu, 2017);
- *Legal regulations in the financial field:* legislative changes established by the authorities to avoid crises, burdened the operation of the existing financial services providers, but on the same time made it easier for start-up companies like Fintech to join financial markets (Puschmann, 2017: 72). In countries where banking regulations are tougher Fintech companies are more sought after and investments (per GDP) for them are higher (Mansilla-Fernández, 2017: 38).

Arslanian and Fischer (2019) believe that three forces have been the basis for increased productivity, scientific progress and business opportunities over the past 50 years (Arslanian and Fischer, 2019: 3-12):

- *Computational power* – Moore's law proved correct in 1965 when predicted that the number of transistors in an integrated circuit would double every 2 years and thus the computational power increased exponentially, while the cost decreased dramatically, reaching that in the last 30 years the number of transactions per second that can be bought with one dollar has increased by a million times;
- *Database expansion and availability* – a storage capacity unit has become extremely affordable, at only 2 cent per Gigabyte today compared to $1 million just over 50 years ago;
- *Increased digital connectivity* – digital connectivity has evolved from 2G (text only) to 5G (text + internet + ultra-HD + 3D video + smart homes) in only 30 years.

In addition to the effects of the financial crisis and recent technological breakthroughs described above, two other factors have influenced the spectacular increases in Fintech investments (Puschmann, 2017):

- *Technology innovations in IT:* Big data, the Internet of Things (IoT) or cloud data storage have allowed financial institutions to automate, digitalize their services and introduce innovative new products and services;
- *Consumer behavior:* Changes in consumer behavior that have occurred with the advent of mobile devices have led financial institutions, based on automation and support services, to interfaced customers and to introduce digitalized delivery channels.

Table 1: Factors that influenced the appearance of Fintech

Factor	Trigger Effect	Effect
Labor Market	Financial Crisis 2008	Excess financial expertise available in the labor market
Legal regulations in the financial field	Financial Crisis 2008	Excess regulation facilitates the creation of competitive niches in less regulated areas
Increase of computational power	Advancement of technology	In the last 30 years computational power and its cost were inversely proportional
The expansion and availability of databases	Advancement of technology	Over the last 50 years storage capacity and its cost have been inversely proportional sizes
Increased digital connectivity	Development of telecommunications	The emergence of 4G and 5G technologies to support Fintech
Innovations in technology	Progress of IT	Digitalization and Automation of Services
Consumer Behavior	Use of the Internet and mobile and wireless communications	The emergence of new generations who want faster, more complex services with less dependence on traditional providers

Source: Adapted from literature

5. Potential scenarios

Possible hypotheses of the financial industry future were also tested by a survey supported by Accenture in their "FinTech Innovation Lab" project, a survey revealing that of the top-level banking executives who took part, only 60% claimed that existing financial firms would survive and even thrive in the Fintech digital age. It shows, on the other hand, that 40% among them are confident that firms can adapt, which was confirmed in the survey by the 70% who responded that their bank has a strategic opportunity to confront and cope with the new circumstances. Furthermore, related to the reasons the situation is considered an existential threat to players already present in the market, 80% of the survey participants replied that, in relation to the skills and expertise required for the new environment, they do not consider that they are at all equipped or at most are minimally prepared for the digital age (McIntyre, 2016).

A key point in developing possible scenarios is the potential changes in business models and the different roles that traditional banks and other Fintech companies (including large TechFin companies) can play in owning and retaining the customer relationship. The TechFin companies mentioned above are particularly in the privileged position of having both the relationship with customers and their database. Although, at an even more crystallized level, these scenarios are also dependent on the size or location of those players, should not be regarded as exhaustive or mutually exclusive, but rather the progress of the financial industry will be marked by a combination of these scenarios (BCBS, 2018: 14-20):

- *A better bank:* A scenario in which traditional companies modernize and digitalize themselves to retain both customer relations and basic banking, using emerging technologies to change existing business models. Although under the pressure of cost efficiency and customer relations, this assumption is based on the fact that existing firms are better positioned to provide financial products and services by adopting new technologies or improving those already in use, due to their high expertise in the field and their high investment capacity. In

order to improve current products and services, banks adopt technologies such as Bigdata, Artificial Intelligence or Distributed Registry Technology. Banks would also be willing to offer partially or fully automated services through robo-advisory, innovative and safer payment services or to digitalize the lending process in order to improve speed, accessibility and cost in the decision-making process (Hatami, 2015);

- *A new bank:* Existing banks are being replaced by banks based on new technologies, such as neo-banks or TechFin companies, which have platforms offering fully digital and cost-effective services. They could receive banking licenses and have their own customer relationships or they could use partnerships with traditional banks. Neo-banks are much more flexible with existing regulations and can use new technologies at a lower cost in a more attractive modern environment (Hatami, 2015);
- *Distributed bank:* Financial services are provided by Fintech companies, which do not attempt to become universal banks, focusing only on specific products and do not compete with each other for full ownership of the customer relationship. In this scenario, participating companies are associated to share the provision of services and products, resulting in increased transparency and quality for customers. This way, instead of being attached to a single company, customers can use multiple providers and access services such as: innovative payments, credit platforms or robo-advisory services (Hatami, 2015);
- *Disintermediated Bank:* In this scenario Fintech companies use traditional banks for bank licenses to be able to offer services such as lending or deposit-setting or other purely banking services. Existing banks become the equivalent of commodities for products of the above type and give up the relationship with customers to Fintech companies in their entirety. As a result, banks no longer play an important role, and Fintech companies use Bigdata, Artificial Intelligence and Robo-advisory technologies in innovative ways, through platforms configured to exploit connectivity and databases to improve customer service while also retaining their relationship (Hatami, 2015).

There are definitely similarities and differences related to the financial services offered in relation to the old financial structures, depending on the aims of the players and the advantages and disadvantages of accessing new technologies. For example, the various payment systems are a Fintech market where although banks lose some of the transaction areas, they still have the final interface with the customer. On the one hand, in a similar way to banking institutions, crowdfunding platforms, for example, offer instruments for converting deposits into loans and investments. Differences arise in the way investors are selected and investment opportunities are offered directly, without the need for an intermediary (Nicoletti, 2017: 55-57). The access to financial services is decentralized through internet platforms, information management is based on statistics, the use of technologies and broad access to the media, and does not use the long-term institutionalized interbank relationship system. On the other hand, this Fintech independence from banking institutions means that they have increased vulnerability related to volatility and low customer confidence in the security of the financial services offered (Nicoletti, 2017: 180-183).

Taking into account the above scenarios, as well as other possible alternatives resulting from their mixing, one of the concerns of policy makers in the financial and management policies of public or private organizations is the extent to which Fintech

companies could replace all or part of existing financial institutions. What is clear, however, is that they increase competition in the financial market, improving people's access to these services, producing a feeling of greater user control, feeding the population's need for independence from existing institutions and offering products and services that they provide less efficiently or do not have at all in their portfolio (CFA Institute, 2017: 6).

Furthermore, the level of acceptance or resilience of traditional banking institutions will be variable and will depend on the market segment at a given time, the customers' categorization or financial services involved and therefore it is very likely that the reaction of financial institutions will be heterogeneous depending on its specificity in the market (Nicoletti, 2017: 184). Traditional companies will approach the relationship with Fintech companies either by acquiring some of them in part or in full or will act in a competitive way, especially by developing their own laboratories for creating new financial technologies and new business models, aiming at an increase in the independence of innovative think centers, but still maintaining an interdependence with the corporate culture of the company (Tajimi, 2021: 75).

6. Fintech effects to organizationsmanagement

The outcomes that financial technologies produce on the management of organizations are felt by the impact they have on each of the five management functions (Fayol, 1916):

A) Impact on the planning function

The context of wild technological progress and the digitalization of more and more economic and social areas generates the need for organizations to constantly and efficiently adapt to a rapidly changing economic and social environment and to be able to assimilate and apply new knowledge. The organizations management in traditional banking system is forced to study the impact of the risks posed by Fintech technologies on financial stability, to find and plan solutions to their effects, without at the same time suffocating the implicit innovative benefits (BCSB, 2018: 6, 24).

Certainly, Fintech business models represent a challenge to the management of organizations in this industry in terms of integrating information technology processes. The decision makers of these institutions should plan to refresh the staff base not only with IT specialists, but also with experts in data analysis, mathematics, statisticians and marketing and media specialists with knowledge in cognitive behavioral theories. Although many traditional financial institutions encourage access to various education programmes on Fintech, by introducing modules to study new financial technologies in their continuing education programmes, few have predicted the possible impact and made early changes in their recruitment and human resources policies (Cao et al., 2019: 4).

B) The impact on the organizational function

The management of organizations and especially the managers of the risk departments are traditionally relied on risk specialists, from the company's existing divisions and internal working groups. We believe that the emergence and multiplicity of new business models in the financial sector leads to the need to create specialized units within the traditional company, containing highly specialized staff with a broad mandate, comprising multiple and various functions such as research and implementation policies, obtaining certifications and licenses, maintaining contact platforms for customer relations. This can be achieved through traditional supervisory

methods combined with the creation and use of supervisory technologies (Suptech) (BCSB, 2018: 34-36).

It is also very important for the management of traditional financial institutions to identify and understand the motivations of customers who choose to use Fintech applications at the expense of their traditional financial instruments. It would be beneficial to the financial industry as a whole, for traditional companies to reconsider their own business models and through reorganization to integrate new financial technologies using their innovative benefits, while preserving on the one hand the level of data security for customers and without disrupting financial balances on the other hand (Gerlach, Lutz, 2021: 27).

C) Impact on the leadership function

The objectives of national and global data privacy, cyber security, consumer protection or fair competition and transparency policies must be developed in line with the financial objectives of the management of organizations with regard to new Fintech business models. Financial safety, transparency and stability can be improved through effective and effective communication of organization management (a defining component of the management function) with regulatory institutions dealing with consumer data protection (BCSB, 2018: 33-34).

This will ensure the possibility of new financial companies, but also of the traditional banking sector, to use new innovative financial technologies in accordance with the laws and regulations relevant to the industry. As traditional banking institutions are exposed to more stringent and stricter regulations compared to their non-banking competitors, and in order to ensure a climate of competitive fairness, the management of regulatory institutions should emphasize collaboration with the management of non-bank Fintech firms in order to improve their transparency and to implement appropriate operating policies (Vives, 2017: 102).

D) The impact on the coordination function

Technological progress brings pressure on the financial industry, forcing the management of banking organizations to rethink the necessary portfolios of staff knowledge. As the Fintech phenomenon has the potential to transform both traditional business banking models, operations and financial structures, as well as production and access to financial services, banking management will need to rethink both its organizational structure and personnel policies. Staff training and motivation programmes will aim to ensure that staff tools, knowledge and qualities are relevant, effective and applied to the risks posed by new innovative technologies and business models (Cao et al., 2019: 29-30).

The increase in industrial automation and the accelerated integration of robotic units into human activity, naturally, produces a current of social concern for individuals and at the institutions organizational level. At decision-making level, retraining policies should be adopted, with the workforce having to focus more on acquiring new knowledge, rather than focusing on a specific professional area. In the context of digitalization, the structures and professional needs of the market will change, the analysis of information remaining an advantage of managers, new technologies helping to a faster and more complete analysis, keeping the decision-making of leaders at a more efficient individual-human level (Bril et al., 2021: 2).

Failure to adapt knowledge and skills to the current framework of financial industry requirements may result in the partial or total replacement of certain roles in this sector, the most relevant of which are highlighted in the probabilities of replacing

the role held and as can be seenin Table 2, management functions at the highest level could also be affected. In order to avoid this and to ensure the success of financial investment institutions in front of Fintech companies, the absolutely necessary skills to be developed by management within their own organizationsinclude (CFA Institute, 2017: 58):

- the ability to convincingly formulate the company's vision,
- the capacity to impose an ethical culture of decision-making, understanding and knowledge of corporate regulations and corporate governance,
- in-depth knowledge of new financial technologies: distributed ledger technology, artificial intelligence, etc.,
- higher scientific knowledge, engineering and mathematics.

Table 2: The risk of financial roles replacement

Role	Likelihood of replacement (%)
Chief Executives	10
Actuaries	30
Financial analysts	31
Economists	40
Other financial specialties	35

Source: CFA Institute, 2017: 58

E) Impact on the control function

Similar to digital integration that actually meant the change from analogue to digital of systems and processes, new business models based on innovative financial technologies pressure corporate culture to adapt and integrate these technologies. The management of these organizations is forced to assess the current own performance of their companies and also to predict and estimate the potential for standard performance on the new conditions brought forward by the development and implementation of Fintech. Based on the comparison between standard performance and current performance, management will be able to take corrective action within their organizations and focus on development methods according to organizational theories. Approaches are indubitably varied, but Moore (2015) suggests four areas where companies should structure their investments (Moore, 2015: 39-44):

- area of innovation and creation of new business models, with ROI in 3-5 years,
- area of transformation, development of new business models, with investment recovery deadlines in 2-3 years,
- performance area, boosting growth rates of existing businesses and target of ROI in a year,
- the area of productivity, with a focus on the means of stimulating productivity and with the recovery of investment in a year.

7. Conclusions

This article introduces a critical analysis of the literature regarding the particularities that Fintech represents to the management of organizations. Although most specialists agree that they are an essential factor in changing and reforming the way individuals and companies will access financial resources, there is still no consensus on the impact on the organizations and solutions to be adopted.

New, disruptive or transformative technologies produce various economic and social pressures to rethink and innovate diverse financial operations such as risk

management, insurance, lending, legislative and compliance regulations, trading shares or payment methods. This article examines the extent to which Fintech companies could replace or complement banking institutions or other financial companies existing on the market, taking into account, on the one hand, the market tensions between competitors and the need for stability and reduced volatility. Several possible scenarios have been identified in this regard. These scenarios emphasized the objectives the management of the organizations involved in this process should implement and once financial technologies are assimilated, the stability of financial products and services can be ensured over time, the need for medium- and long-term predictability is realized, the credibility of services in the market is maintained and the benchmarks of confidentiality and protection of customer data are preserved.

The effects of financial technologies adoption have been identified on the basic functions of the management of the organizations involved in the various scenarios and the need to address appropriate human resources policies, such as retraining policies, has been identified, with the workforce having to focus more on acquiring new in-depth knowledge on new technologies such as: distributed registry technology, artificial intelligence, etc.

On the other hand, researchers of the financial industry point out that innovative Fintech methods and especially the possibility of much easier, democratic and mass access of the population to financial services (Burlea-Șchiopoiu, 2019) produce a revolution of traditional financial theories, especially through the changes resulted on financial behavioral models in diverse population categories. The present paper stresses, for these reasons, that traditional financial services providers, banks, insurance companies, etc. are and will be forced to adapt their activities, services, policies and business models, through appropriate management to the new market requirements and based on freedom of data access produced by new information tools in today's environment.

For these reasons, including at the level of the financial policies of the European Union and EU Member States, as well as traditional global banking companies, attempts are being made to find solutions to involve regulatory institutions and financial control over new Fintech technologies as a vector for increasing efficiency and competitiveness in the market without at the same time being a factor of disruption and financial instability or progress inhibition.

The great challenge for the management of organizations is to succeed in encouraging innovation and competitiveness in the financial sector, while ensuring data security and financial stability, as well as preserving the level of credibility throughout complex data protection technologies. There are several objectives facing the current financial industry that will need to be adopted by the management of the organizations:

- ensuring the integrity of a financial system in a globalized world and flooded with valid and non-valid information through multiple media channels,
- securing jobs in the financial industry and assisting the workforce to obtain new skills that will enable to improve adaptability to the new business models proposed by Fintech,
- encourage a financial system to be as innovative and competitive as possible,
- management adoption of economic policies to integrate the rapid evolution of new financial technologies with the aim to incorporate them into the culture of organizations.

The financial revolution produced by Fintech already had and will have a strong impact on the financial industry and will cause a fundamental change in the management of global resources and financial instruments. Fintech business models will produce trends of change and adaptation is needed in all fields of activity and in all social structures, reaching areas ranging from information technology, marketing, management, to the human resources market, social and economic policies, education and financial behavior models.

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