Dipartimento di *Economia e finanza*

Cattedra *ENTREPRENEURSHIP, INNOVATION AND TECHNOLOGY*

FINTECH:

Innovation in financial services and in the traditional banking system

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INTRODUCTION

Technology has changed people's lives and this is not a news. Its development has affected many areas, upsetting old habits. For example, the field of communications has suffered a remarkable transformation: thanks to social networks, which are now part of everyday life, the relationship between people has also changed.

In recent years, with continued progress, digital technology is also spreading in financial services, leading to significant changes in this market.

Personally, for a couple of years, I can monitor my bank account from my cell phone and carry out operations, so I've already noticed how financial services are making progress, but only last year during my internship for KPMG I learned about this wave of modernity and change that is running over the financial sector.

During the internship, I was assigned to a senior manager who gave me the job of preparing a presentation about the FinTech (a completely unknown name for me) and to analyze some special cases.

So the first time I did a search I discovered that FinTech was simply the merger of two other words: financial and technology.

This new era is marked by a real competition where the two challengers are the incumbents, the traditional banks that have always dominated the industry and FinTech companies, which are new digital players who often come from other areas of interest.

Disintermediation is what FinTech companies want, aiming to improve the user experience for a customer who is increasing his knowledge and need.

The work begins by trying to define the FinTech world by analyzing its ascent and its numbers, such as the investments that have exponential growth in recent years.

The geographical analysis was then carried out, dividing the different areas of development.

Among the cases analyzed in KPMG, the most interesting one, in my opinion, was Number26, a FinTech bank born entirely to be online and so I thought it was appropriated to talk about it, studying how it was born and how it developed.

The final chapter is focused on the clash between the traditional model and the new players. So I brought pros and cons of both challengers to conclude that collaboration, like everything in life, is the best way.

CHAPTER 1

FINTECH INNOVATION

1.1 What is a FinTech company?

The term "**FinTech**" derives from a contraction of two words: Finance and Technology and it defines ***companies that provide or facilitate financial services by using technology*****.** (WORLD ECONOMIC FORUM, 2015, The Future of FinTech - A Paradigm Shift in Small Business Finance).

It's seen as the reinvention of Financial Services through digitization and it consists in the application of software, hardware and other technological systems to financial services. So, developing new programs, the final purpose of FinTech is to improve the user experience and to optimize the operation costs.

"FinTech or financial technology is the term used to refer to any technology applied to financial services. More specifically, we can define FinTech as a complex combination of financial services and technological innovations in an ever-changing ecosystem of customer expectations and regulators." (PWC, 2016)

Often the word FinTech is associated exclusively with the payment sector. However this utilization is not correct because FinTech companies operate in a very big ecosystem; it is usually applied to the segment of technology startup scene that is disrupting sectors such as mobile payments, money transfers, loans, fundraising, asset management, e-commerce, credit scoring.

A financial startup arises specializing in one of these sectors and grows troubling the old methods, covering a significant ecosystem.

In particular, focusing on the banking sector, the ecosystem becomes the one in the figure.

Figure 1. Fintech ecosystem in the banking sector. Source: https://letstalkpayments.com

Within this ecosystem, the payments, lendings and savings sectors are the most financed and they are the fulcrum of the banking system.

To achieve efficient and effective financial solutions at a lower scale is what FinTech companies would reach and they should get it disintermediating the role of incumbents, such as banks, and servicing customers directly through the use of online and mobile channels which are preferred by users due to their simple accessibility and convenience.

This is due to the fact that the new context is characterized by customers with a new way to approach products and services and with new knowledge.

1.2 Fintech disruption

Technology not only is bringing large changes in the banks' world, but it is also entering new competitors in the market, which often derive from other sectors: the financial startups which, using mobile and digital technologies, are changing radically the relation bank-customer.
The consumer, using these instruments provided by a FinTech operator, is losing the trust that has always had through the bank.

Certainly, the technological progress is one of the most important factors of FinTech disruption. Due to this strong impact, nowadays consumers have highest expectations thanks to new advanced solutions.
Especially thanks to smartphones and Internet people and businesses can now connect and do things in easier ways previously unknown.

It's important also take into account that financial institutions have lost faith after the Global Financial Crisis. As consequence, the consumer is ready to adopt new business models and products provided by new entrants, like financial startups.

Also the regulations imposed on banking sector is influencing the falling of the sector; in fact a lot of restrictions were issued and they took an increase of operating costs of compliance and a strict reduction of R&D budget.
As a result, banks lost competitiveness and have to assist to the entrance onto the markets of non-banking players, which are able to offer alternative financial products and services that can substitute the ones provided by banks and can fill the financing gap widen in the post-crisis environment for start-ups and SMEs. These new players are focused on the digital distribution of data through a globalized network that uses software and servers.

In last ten years, FinTech startups were able to present themselves as new innovation source of financial services, trying to link technological innovation with financial one. These new companies were faster than banks in exploiting the progress of digital technology and this took an important advantage for them.

The citation "*banking without banks*" is always more common, it stresses that these new digital players have not a banking origin and that they are outsiders to compliance requisites imposed to the banks and other financial intermediaries.

If people start to become more familiar with technologies, the time to adopt the new ones will be lower bringing important consequences both on innovation speed that on companies, which have less time to adapt to the market.
This means that if the speed with which innovation is introduced into customer experience is less than the rate at which this technology is adopted by the mass, it is very likely to lose its customers for the benefit of faster companies. It is clear that this concept is fundamental for banks, which until today have proved to be sluggish and have enlarged the gap with their customers, pushing them to adopt the services offered by non-bank players.

These new realities, according to a study by McKinsey (Mckinsey, Fintech – Challenges and Opportunities, 2016), are characterized by:
- Technology and innovation as a source of competitive advantage
- Dynamic business model. They are not tied to a rigid infrastructure, and they are only partially subject to the regulatory charges imposed on banks; they require little staff, but very specialized;
- Communicating with the customer through innovative channels. These realities are based on access to their platforms mainly on the mobile and internet (for example, they have no affiliates);
-Customer orientation. At the heart of the services offering there is the customer knowledge and the improvement of its "customer experience".

1.3 FinTech's fundings and analysis per subsector

In a report performed by Accenture is emerged that investments in FinTech sector were tripled in 2014 and grew by 75% in 2015, reaching a total of $22.3 billion, for an amount of more one thousand affairs concluded.

In 2016, the development was faster. The first quarter has recorded a growth of 67% respect to the same time span of the previous year. This growth is mostly due to Europe (with the Great Britain absolute leader) and to Asia, where investments are more than doubled.

North America has the highest rate of financing activity, followed by the emerging Asia-Pacific that quadrupled its investments in 2015.

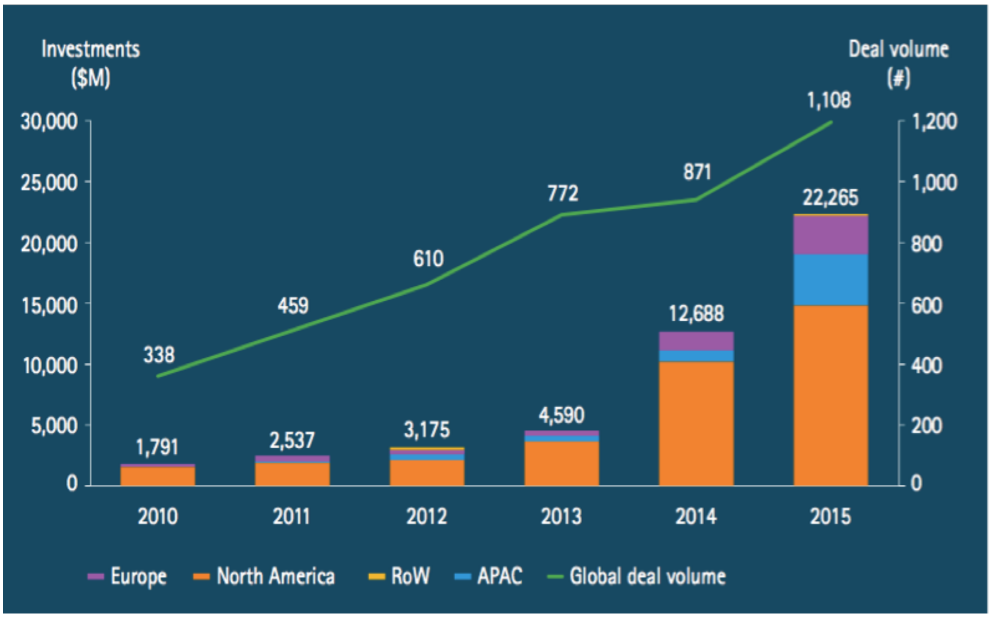


Figure 1 Global Fintech financing activity (2010-2015)

For what it concerns the analysis of subsectors, payment sectors (P2P) and online wallets represent more than 50% of total investments, followed by the Personal Finance Management (PFM).

MPos sector has recorded a growth of 70% of the transitions and it counts about 40 billion euros of investments, with Europe and USA as bigger investors.

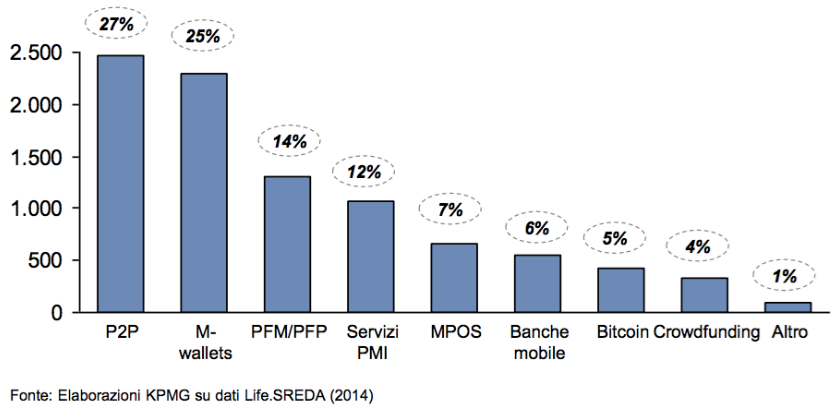


Figure 2 Fundings per subsector Source KPMG on data Life.SREDA (2014)

The success of FinTech operators is given mostly to their wide range of action that goes from the purpose of basic services, as the opening of a bank account, to more complex services, as loans supply.

- Crowdfunding: funding from the Crowd. It's a way to look for capital through dedicated web portals in the internet world, exploiting the power of social networks to do the word of mouth to a large public that, if convinced by the idea, will be able to support it deciding to invest money until the "target" set by the project's creator is reached.

- Peer-to-peer lending: It is defined as a personal loan from individuals to other private individuals on the Internet. It takes place on the sites of social lending companies, without going through the traditional channels represented by financial companies and banks.

- Payments: the payment system, being a sector characterized by overcome systems and technologies and significantly higher costs, is the area most easily attachable by digital players.

- Digital Asset Management: Digital Asset Management (DAM) is a central archive for digital content. Thanks to a DAM system, you can organize, archive, access and distribute all "digital assets" such as images, documents, audio, video, and files in general.

- Credit scoring: it is a system used by banks and financial intermediaries to value the consumer solvency. It is a score that is given to funding applicants to report the possibility of paying their debts to the claimant.

- Currency change: FinTech operators are also specializing in "Foreign Exchange". They offer cheaper exchange rates that allow them to be big competitors in this field as well.

- Digital values or criptovalues: FinTech also deals with "criptocurrencies". Many are qualified in the so-called "digital gold", which is experiencing exponential growth.

CHAPTER 2

FinTech, GEOGRAPHIC AND SPECIALIZATION SECTORS BREAKDOWN

2.1 FinTech in Italy: specialization sectors

Also the Government started to be interested in FinTech, in fact a legislation to support FinTech in Italy would place our country in a strong position in the context of the continental competitive scenario, thus giving vital life to an innovation field that already today sees Italian companies and entrepreneurs to collect international successes as well.
However, the complex ecosystem and the strict regulations hinder the development of their international competitiveness.

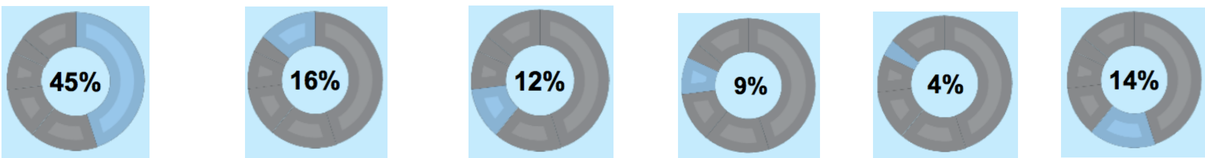
From a geographically point of view, FinTech startups are concentrated in North Italy, especially in Lombardy (42), followed by Emilia Romagna (13) and Piemonte (7).
In the Centre Italy, there is the 19% of the startups, predominantly in Lazio (12).
In the end, with the 12%, there is the South Italy where Campania is the leader (7) (SmartMoney, 2016, Startup Fintech Italia).

Figure 3 Italian geographic division. Source SMARTMONEY

In Italy, FinTech sector counts more than one hundred active startups, for a total of

33.6 million euros. Despite this, investments and exits are not significant respect to the rest of Europe but the market is growing.
The distribution of the startups on the Italian territory confirms the general trend of the national economy, highlighting a substantial gap between north and south.

The most developed sector, with the 45% of the total investments, is Crowdfunding, followed by digitization of banking services which counts the 16% of the total investments.



Crowdfunding Banking services Payments E-commerce Security Other

Source: SMARTMONEY

In almost all European countries the volumes of collections through crowdfunding campaigns show that they are growing rapidly, however, there are large differences between countries. The United Kingdom is the most mature country both for volumes and as an ecosystem. Other major European countries such as Holland, France, Spain, Germany, Italy etc. have volumes far below the UK; however, the development of the ecosystem in each of them has the potential to make the alternative finance market particularly significant over the next two years.

As evidenced by the data, even in Italy the collective funding based on online fundraising through *crowdfunding* platforms is taking a big step together with the sharing economy, which consists in the exchange or sharing of goods and services between individuals (Sharitaly, 2015).

From the studies of **Osservatorio eCommerce B2C** is possible to monitor also the trend of the e-commerce.
"Product eCommerce purchases (+ 25%) will grow far better than in 2017 (+ 8%) and, for the first time in the history of Italian e-commerce, the product market will be as good as the services market (11.5 billion euros) The weight of e-commerce on total Italian retail purchases will reach 5.6%." (Riccardo Mangiaracina, scientific manager of Osservatorio eCommerce B2c Netcomm, 2017).

These numbers show how, despite the crisis (-0,5% of sales as stressed by Il Sole 24 ORE in 2017), digital channels assist the whole system, helping the regrowth of Italian GDP.

Growth in e-commerce can certainly be of help to the digital payments industry, which even though it's growing well, it is well behind the rest of the world.
From the same search of the **Osservatorio eCommerce B2C**, it turned out that more than 50% of payments in Italy is done by cash. But since 40% of mobile users have already made at least one smartphone payment, the premise seems to be positive.

2.2 Worldwide situation

In our country, the FinTech industry is still limited since there are too restrictive and up-to-date regulations.
The number of startups in this sector is arising, as the number of programs devoted to the support of this sector grows.
FinTech in Europe is growing strongly, to the point that today it has more growth than in the US, the symbol of startup. Europe and London, on the other hand, are now being defined as FinTech's capital.
In Italy, the situation is different; the financial sector is regulated and thus slows the growth. Even apps require specific licenses to be able to operate, especially if it wants

to prepare a product for the retail world, so something dedicated directly to the customer.
England, on the other hand, has created a very dynamic system. The FCA, the correspondent of Italian Consob, allows startups to get licenses in a fairly simple way. Licenses are then controlled, but companies can operate fairly quickly. In addition, FCA launched a sandbox that allows startups to operate without having a license for a period of three or six months, under control and a limited number of users, and then to know what the best license is.

Asia could be the most explosive market and paradoxically the main reasons are its backwardness combined with the big size of the population.
For example, one of Europe's largest startup acceleration programs, Startup Bootcamp, after opening its head office in London in 2015, has chosen Singapore as second home.
Asia has two characteristics that make it an explosive market for financial technology. The first is its population. In Asia, 60% of the world's population lives.

By the end of 2016, Indian Prime Minister Narendra Modi has declared banknotes by 500 and 1000 rupees illegal to fight corruption and tax evasion. With this operation, for example, Paytm, which is one of the many payment startups, recorded a boom of transactions higher than all credit cards put together and it also acquired 20 million customers in few weeks, numbers that also a colossus ad PayPal has ever registered.
The second feature that makes Asia an explosive market for Fintech is the reduced number of bank accounts and credit cards.
Backward markets usually do not follow the development of more advanced markets but reach them jumping intermediate steps.
In Europe, there was a passage from bank checks to credit cards to a timid growth of smartphone payments. Credit cards already provide a convenient payment method and consumers do not feel the need to learn new technology.

This is not the case in Asia. Three billion people do not have a bank account or credit card, but often have a cell phone. The majority of this "Without Bank" population is concentrated in Asia and Africa.

For these three billion non-bank customers, a payment app is the difference between life and death. A payment application allows people to open a store without having a cash amount, thus eliminating the risks of constant robbery. It allows to send money to family, to go to the city to buy medicines without traveling with large amounts of cash.

2.3 Four different ecosystems

Obviously the FinTech movement is developing in advanced technology areas, which are the centre of the entire ecosystem. But also other geographic areas will contribute to development and Matteo Rizzi (Fintech revolution, 2016) has identified four different ecosystems.

<u>Disconnected</u>

This is the group of countries with high concentration of local banks but with a low economic potential. In these countries the level of investments is low and there is not the tendency to switch to the digital world.

<u>Disorganized</u>

Disorganized countries, in which there is also Italy, have enough big and structured banks but thee coordination between players is missing: accelerators and incubators, venture capitalists, big advice players and companies which develop hardware and software. In this ecosystem there isn’t dialogue and nobody tries to be a medium, not even the government.

As result, the little attention does that strategic investments with medium-long term perspectives stay away.

Organized

Maybe it’s the most interesting area, that one which will tend to expand thanks to the presence of administrative bodies created by the government with the aim to organize and collect FinTech realities all together.

Recognized

Even if it’s the smallest area, it is that one which attracts more visibility, talents and capitals. London, New York and Singapore are the landmarks which allow the creation of a delineated ecosystem.

Ernst & Young, to understand what the FinTech ecosystem is the best, uses the following parameters: talent, capitals, politics and market. The results are: UK ahead with California and New York closes the podium, followed by Singapore, Germany, Australia and Hong Kong.
Silicon Valley has no rivals for talent and capital and there are users in step with the times. But it has problems with government programs and the regulatory system, in fact, California is ranked sixth for the policy. For this reason, the UK is at the top, mostly thanks to the support of laws. It is second for talent, third for capital and demand (where New York is first).

The report indicates the proximity to a global finance hub one of the UK's strong points, as well as the support of governments and the efficiency of the FinTech network.
The strengths of New York are accelerators and incubators combined with a new generation of talented entrepreneurs.
Australia recovers ground mainly through recent government interest, with innovation gaining space in the public agenda.
In Asia, awaiting the Chinese explosion, FinTech is developed in relatively small markets such as Hong Kong and Singapore
Germany is a "large but complex" market, with so many capitals.

The same report underlines that changing normative is a simple step and therefore the UK's first position is not stable. For example, if the UK is passive and stays stable, it will be in fourth place in 5 years. A change that would see China in first position, followed by New York and California, with Singapore, Germany, Australia and Hong Kong below. All settled by a new entrant: Israel.

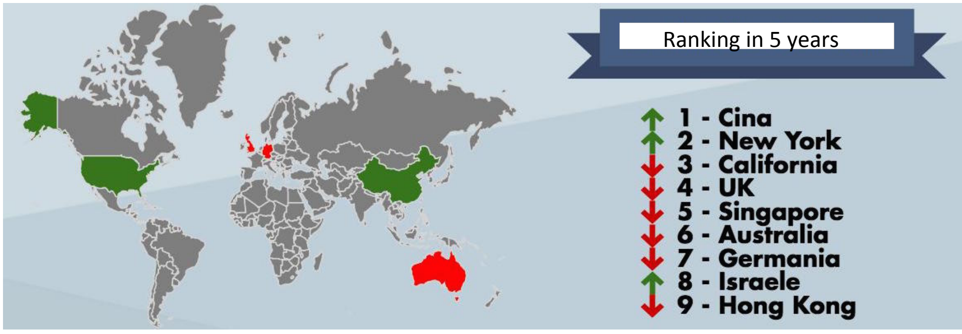


Figure 4 Ranking in 5 years. Source SMARTMONEY

CHAPTER 3

NUMBER26 CASE

3.1 What Number 26 is and how it works

N26 is a FinTech startup company born in Berlin, which in just 18 months of operation has been fully licensed by the German regulators and the ECB, and it is expanding into six countries: France, Ireland, Greece, Italy, Slovakia and Spain. In this way it can "build" its own financial products: deposit accounts, investment products and credit offers.

"Number 26" refers to the fact that numbers are involved (so letter N) and the number twenty-six was chosen because the Rubik cube has 26 small cubes in many colours and to find the cube solution it’s necessary to find the right strategy. According to Valentin Stalf, Founder and CEO of N26 it's the same for the banks, “You have to understand the value chain very well to offer a very simple product to use for customers. That's why we chose the name N26” as he said during the interview for Il Tempo (May, 2017).
He already did some observations about people preferences. At the moment of the foundation the main important thing was using it in a simple way, in a new way, which doesn’t obligate the customer to spend time at the agency.
An other stressed strength was the total transparency offered by the service; for every operation there are real time informations, without hidden commissions.
Besides in addition to the current account, N26 is working on credit, savings and investment products, so there is an offer like that one of the market but it has an easier access.

About the expansion it’s significant seeing how much the bank has grown during last two years. Starting from Germany and through Austria and France, there are 500,000 active customers. About Italy, where it is already ready, the target is reaching around 50,000 customers. Anyway the goal is building leadership positions in the coming years as a digital bank with over 2 million customers in European countries.

The staff is composed by over 200 people and the majority works in Berlin, where now there is also a customer service for Italy.
Generally customers are between the ages of 18 and 35, who have grown up with digital products such as smartphones, who is interested in the digital experience catching the difference between a digital and a traditional bank. In general, however, we do not limit ourselves, but only focus on who was born in the digital age. Typically digital products first meet the interest of the generations grown with these products and then they expand to other generations as well.

- How do I open an account?
The opening of the account is totally innovative; on average it takes 8 minutes.
It’s needed an online connection and through a video chat it’s required to show documents without the need to send them. Once the registration is complete the account is ready to transfer money and in just two days the user will receive the card (Mastercard circuit).
N26 does not carry out customer checks through risk centres, so opening an account is possible for everyone, even for those who have had banking problems. The benefits of the innovative app are also in the total absence of customer charges and it is also possible to withdraw or pay in foreign currency at a 1:1 compliant rate at the rate adopted by MasterCard.

3.2 Some features and some issues
As a real bank in the future, these are some of the features that characterize N26.
- Branchless: It is a totally digital bank, with no connection to a traditional bank. It’s possible having access to 24-hour services without any physical contact;
- Mobile: The interaction between the bank and the customer is based on an interface designed for smartphones. The phone number replaces the account number to verify the identity. As a result, all services are faster, for example, in case of loss of credit card it’s possible to disable it with one click;
- Light infrastructure: few developers against a large number of employees, which strongly affects finances. A neo bank goes from a few dozen professionals to a few

hundred and has one or few other physical sites; a traditional bank has so many retail spaces.

- Customer-centric design: The smart interface improves user experience, especially digital natives that already have high expectations due to the habit of using apps to order food, call a taxi, or book a restaurant;

Despite the good premises and the excellent numbers, in June 2016 some accounts were been closed.

The users' feedback was so strong and they reviewed on social pages of the bank attacking the service and stating that their accounts were not in function without having any explanation.

Obviously the bank did an explanation but causes were not clarified.

"Number26 press statement regarding account cancellations:

Berlin, 1 June 2016 – NUMBER26 is one of the fastest growing checking account providers in Europe. Every provider of financial services has the right to end a customer relationship, as we must also do from time to time.

Recent cancellation notices affected a few hundred NUMBER26 accounts. In the context of our fast growth, the number of affected accounts is insignificant. Each cancellation has a reason, and we are sorry to have to close any account. For data protection reasons we cannot comment on specific cases. Notified customers have 2 full months to continue using their accounts under current terms and conditions before the account closure becomes effective".

Encouraged by users and printers, Stalf could no longer opt for silence and offered explanations that left many speechless.

Business Insider reveals: "Deletion involved a number of users who used the service almost exclusively to make withdrawals from ATMs. These users have withdrawn money more than 15 times a month, some have arrived up to 30 » is the debut of the note. So, the question is purely economic. The startup guarantees withdrawals from automatic cashiers without commissions, hiring itself to pay them (each transaction cost the company a network fee in the range of €1.70 to €2.30). This frequent activity drove up costs and was not sustainable.

In short, you can withdraw without commissions, but you have to do it mildly, otherwise your account will be closed due to large expenses: "We cover the fee, assuming that customers will use the account and the benefits in a reasonable manner," concluded Stalf.

This deal is triggering a reflection in the FinTech word, especially in the UK, which is probably the most important ecosystem today. The node is the business model that many of the major startups have adopted. In short, lower fees, more transparency, more ease of use, are good promises, but how will the FinTech succeed economically speaking?

CHAPTER 4

FINTECH'S IMPACT ON CURRENT BANKING SYSTEM

4.1 Opportunities and threats for the banking system

According to *Pwc* (FinTech Global Report, 2016), traditional financial institutions, particularly those in the field of payment and money transfer, will lose 30% of market share in favour of emerging FinTech. In particular as the same report stressed, the biggest threats are:

- Pressure on the margins. FinTech companies are more efficient, they exploit technology and innovation, plus the absence of traditional legacy, to improve operating cost management. Thanks to this, they can promote the sale of financial products and services at lower prices than the incumbent, pushing banks to lower their prices.
- Loss of market share. FinTech companies could subtract the opportunity to earn to incumbent, since they could directly sell their products and services to consumers, becoming an alternative to traditional players.
- Increase in "customer churn". Customer churn is the move away of a customer / user from his or her favourite product or service in favour of that one of a competitor. FinTech's development could cause an increase in this phenomenon.

It is clear that the threats are concrete but it's also true that *incumbents* have some opportunities that can catch.

- Reduction in operating costs. The development of FinTech can be an opportunity for incumbents to carry out a review of internal processes in order to simplify the whole system and to do a cost rationalization, thus reducing inefficiencies in their operations and lowering considerably the cost to income ratio.
- Product / Service Differentiation. Exploiting digital platforms can allow the bank to extend and differentiate the offering, for example in customer advise, and in investment proposals.
- Additional profits. The impact of FinTech can help *incumbents* stimulating them in the

developing of new products, also complementary. For example, in the field of payments, the introduction of wallets can be an additional source of revenues for banks that will decide to create it by itself.

- "Customer retention" improvement. New entrants have raised the level of the customer experience. This expectation is now extended to financial services: for the incumbent it is an opportunity to adopt a strategy which puts the customer at the centre, improving the level of "customer experience" offered. As a result, there will be a decrease in customers' churn out.

During the audition at the Senate of 19 April 2016, Ignazio Visco, the current Governor of the Bank of Italy, has highlighted the main weaknesses of the Italian banking system:

- High concentration of *non performing loans*
- Low ROE
- Need to adjust the activity model to the new technological framework

Therefore, review the activity model will be one of the aims of the banking system.

FinTech startups are a concrete threat for the traditional banking model and due to them, the consumer has started to question about the banks' clarity.

- "Why did I pay an high, onerous and not transparent commission level for all these years?"
- "Why am I forced to open a bank account to have a loan?"

The existent banking system has experience, continuity and culture that have load maturity to the relationship with the customers. Furthermore, the banks have the knowledge of the risk, of the control and mostly of the regulatory aspects of supervision.

For sure, banks transmit safety, something of already known, but also of complex. For all these years, families have considered banking institutions as main source of external finance to private or business projects. Especially for the large businesses banks represented for a long time the unique source of funding, even because large companies have guarantees that small and medium enterprises don't have.

But now, the banks have to compete with the "*entrants"*, structured in a reactive way and hold out to innovation; all factors important in the financial and banking services sector.

For the Italian banking system, as analyzed by PWC in its report "*The evolution of the role of the agency in Italy* (2014), the presence in the territory has been crucial for the past decades, with the aim of spreading knowledge and the brand.
The agencies played both a transactional and credit role (linked to the payment system and cash management / liquidity of Clients) and relational (of flagship).
The agency was the predominant element of the distribution system. It was also important for their physical positioning, in order to obtain maximum visibility. In fact, the agencies in Italy increased until 2005, although in Europe there was a downward trend.
Today, in Italy, as in other parts of the world, the decline in banks' profitability, coupled with social-demographic transformations, changes in consumer habits and technology development, is changing the distribution model and, in particular, the role of the branch.

"It is not enough the only territorial presence and the systematic collection through counters" (Giuseppe Vegas, 9 May 2016)

4.2 Relationship between banks and FinTech companies

Basically, none can be do without the other. Financial institutions, as banks, have experience of the market, of the regulations and mostly a valid and solid clientele.
However they don't have the desire to experiment and to fit to the new customers' needs.
While the startups need the banks' support to barriers of their growth: need of capital and

adaptation to the regulations, which are always most restrictive.

Today banks are starting to introduce innovative elements within their business models that allow them not to lag behind these profound changes. Also major players in the banking sector such as HSBC, Barclays Santander and BBVA (Banco de Bilbao Vizcaya Argentaria) are beginning to make significant investments in this area and Morgan Stanley recently published a study on P2P Lending.
Even Goldman Sachs, one of the largest business banks, has recently analyzed the phenomenon, estimating that in the next five years, FinTech could subtract from the traditional institutes a slice of market share of $ 11 billion.

4.2.1 Unicredit and Buddybank

Unicredit has created a bank exclusively for smartphones: Buddybank. It is ready to offer the three classic financial products: bank account, credit card and debt and personal loans up to 25 thousand euros.
Buddybank offers a 24 hour concierge service via chat or phone, which will also assist clients in daily operations, such as booking a restaurant, a taxi or planning the next trip. In fact, buddy means friend, the person called when you do not want to get bored, the person with whom it’s a pleasure sharing the most fun experiences.
Moreover, thanks to the use of innovative technologies, customers will be recognized in just a few seconds from the operator without making any pass or answering to security questions and will have the ability to open a current account in just a few minutes, or get instant and contextual funding in a simple and quick way.
A first investment of € 50 million has been made and millions of customers are projected within five years.

4.2.2 INTESA SAN PAOLO and The Floor

Intesa Sanpaolo started a partnership with The Floor, a new incubator of FinTech companies which was founded in Israel, at Tel Aviv.
Its goal is to become a real benchmark for the market where, in addition to selecting and mentoring startups for bank partners, there will be a research and development centre, training programs for the industry, co-working and meeting spaces to promote the dialogue with financial and technology partners. The areas covered by start-ups that will be incubated intercept the crucial issues that are today the focus of attention for the financial sector: blockchain; Big Data; electronic payments, trading and mobile development.
The partnership with The Floor will allow Intesa Sanpaolo to carry out the exclusive scouting of Israeli FinTech realities and to conduct mentoring activities on interesting companies.
"We are proud to be one of the founders of The Floor, a project that has all the ingredients to become an excellent platform in FinTech's international landscape. Intesa Sanpaolo has always considered this particular segment of innovation as an indispensable instrument for the evolution of the banking sector "
(Maurizio Montagnese, Chief Innovation Officer of Intesa Sanpaolo).

4.2.3 MONTE DEI PASCHI and Widiba

Widiba is the online bank of the Montepaschi group that asks zero management fees to deposit savings. In addition, Widiba combines an online savings account with a savings deposit where private investments can yield.
It’s possible opening a Widiba account in just 5 minutes via webcam and the customer will choose the account number.
Each customer will be able to manage his deposit account through the app to see all the movements of the account. In addition, the customer does not have to give up his

security: account access is handled verbatim, as published on the Widiba site: "your voice is your password".
The Widiba account is available in three different packages: Smart, Premium and Top. All three offer many free services, such as account fees and Bancomat fees, but differ for quarterly rates and fir the proposed rate.

4.3 What banks could do

Banks will have to choose where if investing in becoming FinTech themselves, perhaps even by acquiring some strong vertical startup and leaving it to be the most efficient branch of the segment or the digitalization of the offer, or going alone.
The challenge is to not lose control of your relationship with the customers. But if nowadays the old methods generate little gain and they are not competitive the risk to lose the clients exists. Banks make the money run and they can meet demand and supply. This is also their function. So there is nothing wrong if banks give up part of their job, turning into a marketplace by linking demand and supply and getting commissions, possibly offering the security of their systems and their strong reputation. Trust is always paramount. And if FinTech companies want to reach the big masses need the help of this generate and have to find customers.

Therefore, collaboration between *FinTech* companies and banks is needed.

Banks can:

- *acquire startups;*
- *create partnerships;*
- *collaborate with FinTech companies.*

Acquire startups

M&A operations allow to the bank to can acquire the know-how and the needed staff in fast times but it’s necessary to consider acquisition and integration costs that could be very high.

Create partnerships

It’s possible to get savings in terms of absorption of financial resources also through collaborations between players which belong to different sectors:

- creation of Join Ventures focused on innovation in financial technologies;
- collaboration with investors, entrepreneurs and institutions to sustain the innovation;
- promotion of contest between startups.

New entrants to financial services, sometimes acting as "competitors" of banks and financial institutions, in trying to subtract their market shares, sometimes appear to be "agile, creative and fast" suppliers of product / process solutions to strengthen the competitive position of the incumbent itself.

While on the one hand, Fintech is actually an agile, dynamic and extremely skillful way of using technology to its advantage, while the incumbents have capitals, customers and extensive lobbing skills with regulatory bodies.

4.4 Fintegration

Traditional banks and financial services companies that will take advantage of this opportunity and create partnerships with new players will be the main benefactors of FinTech innovation: they will be able to bridge the critical gaps in their portfolio, reach the less-favoured public segments and provide the customer with a better experience at reduced costs. It will therefore be possible to attend a *Fintegration* because banks and FinTech startups have more common economic interests than problems that divide them.

The benefits of digitalization of the banking system are attributable to:

- Increase in revenues, with the growth of incoming flows, through the expansion of the offered services;

- Reduction of costs, due to the downsizing and better distribution of management costs;
- Improving the relationship between the client and the financial institution

Incumbents who are not ready for change seem to be destined for bankruptcy, but it is also true that new entrants, at least for now, do not seem to be able to become market leaders.
For these reasons we are likely to assist at a *Fintegration*, a collaboration between the two challengers where new entrants will have the opportunity to enlarge the old ecosystems by specializing more and more.

Specifically, the collaboration between banks and FinTech can have significant advantages for the incumbent:

- Innovative Stimulation. Collaboration with FinTech, for financial institutions, may be a source of stimulus for a new openness to innovation, but it can also be a chance to induce a paradigm shift at a managerial level: from a model strongly centred on vertical leadership ("top -down"), to less hierarchical alternative models, oriented to a" bottom-up" logic that is better able to transmit inputs from the outside.
- Talent scouting. Through its collaboration with new entrants, the incumbent has access to talented professional figures with the skills needed to identify what's going to be the "key" products and services to create value in the industry.
- Creating a light structure. The incumbent will have the opportunity to interact with the new business of new entrants, which is characterized by the agility and speed of product / service development and the greater risk appetite. The financial intermediary can thus learn how to adopt the same management logic within it and decide to isolate the risk of new initiatives in specific new businesses.
- Career paths for new employees. The acquisition of new professional figures, with different aspirations than those of previous generations of employees, will require the incumbent to redesign the growth, career paths and pricing systems.
- Formation of existing employees. With the advent of new technologies in the banking system, employees need to acquire new skills to keep up with the evolution of the infrastructure.

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