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**Fintech: The (R) Evolution and Future of Banking
System and Commerce**

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Abstract

The aim of this paper is providing information giving an overview about a new age in the financial field. Financial Technology (Fintech) industry is growing faster than other industries and it is changing the way we know the financial markets, customer's behavior, banking system, payments and, in general, the interaction between financial clients and the financial system. Banks are one of the most affected by this structural change; they must to adopt and re-focus their business and the way they have been offering financial services to their clients.

Fintech companies have been receiving much attention in the last few years. And, although the development of Fintech companies is still in early stages, many researchers believe that it will define the path and shape the future of the financial services industry. Digital Financial Services (DFS) are at the forefront as key financial solutions for improving, complementing and enhancing financial services to supply and cover customers' needs.

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1. Introduction

Digital interconnection is advancing inexorably. Internet on the mobile phone that allows connect us to all kind of information almost wherever we want, robots, 3D printers at home, autonomous vehicles, drones, biometric recognition and so on, are evidently just the beginning of digital and societal change. Our lives are becoming increasingly digital and the new technology and business ecosystems are rapidly changing. This is the beginning of the new age of financial ecosystem. In the last few years, there has been an emerge in the number of new technology enterprises in financial services. They are operating under the term “Fintech”.

Now, with the help and support of venture capital companies, these firms are starting to redefine, changing and enhancing the wealth management landscape, enabling alternative business models and expanding the boundaries of the wealth management client base. Nowadays, financial projects are driven by innovative software engineers and finance academics. These companies are digital registered investment advisors (RIAs) seeking to provide simplified financial solutions through sophisticated online platforms, eliminating or reducing the need for face-to-face interaction by costumers with their banking institution.

This paper presents the results of the research focused on the new industry which is emerging in the last years and how is changing the consumer’s behavior adopting their lives to Fintech age or Fintech products. Fintech products (financial services products developed by non-bank or non-insurance, online companies) offer alternative ways of accessing a variety of services, from money transfers to financial planning. Moreover, we are going to define Fintechs as firms that are combining innovative business models and technology to enable, enhance and disrupt financial services. Fintech systems face the issues of planning, operating, evaluating and disrupting financial services.

The capital moved by this sector, known as Fintech, experiences growth of three digits and exceeds 11.000 million euros. **PayPal, Square, Stripe or Financing Circle** are just few examples of the branch of a constantly boiling sector that has been located in the great strategic centers of Silicon Valley and London. Spain has a recently arisen in this field in the same way, although it is true that in recent years have set up in the country a board in which already play about 120 companies that have generated the first cases of success.

The projected growth of the Fintech field is absolutely dramatic: the adoption levels could potentially be twice or three times in just one year. Thus, with Fintech becoming such an important area, the main purpose of the following paper is analyzing the main potentially highlights trends are changing the financial market and banking system. Subsequently, this study also analyzes the Fintech landscape, highlighting the most important growth trends and gives an overview of the mostly services and Fintech products where startups are currently edging into the market.

The following research is for:

1. Define Fintech and its evolution in the last few years as well as its uses in the financial field.
2. Explore the main characteristics on Fintech including business where are acting nowadays.
3. Analyze the current situation about Fintech and how it is changing the business.
4. Study financial field in the last years and perspectives for the next decades.

2. Fintech Definition

Nowadays, everyone can participate interactively in digital spaces as long as they have access to the internet. The effects of digital structural change are macro-economic in scale and are certainly comparable with the invention of the steam machine. Digitization is influencing personal freedom of information, providing economic opportunities, harboring a variety of educational challenges, and driving technology and regulation of the internet in the same way as topical and contentious security questions. For instance, Over the last 30 years, the price of 1 GB of RAM has fallen by more than 99% to around 5 US cents. This is just an example of how digital environment is growing and becoming cheaper each time driving us towards a digital new age. Dapp T. (2015)

Fintech, is the word originated from the combination of “Finance” and “Technology”, thereby, it is an innovative and emerging use of technology in the design and delivery financial services. This field attracts attention from the banking system and financial sector in general. According to the definition of BBVA Innovation Centre website (2015) *“It is a sector comprising many companies on different verticals: payments, loans, personal finance, foreign currency, funding... They are a particular financial product, digitizing and enhancing the customer experience to make it more appealing to a new user.”*

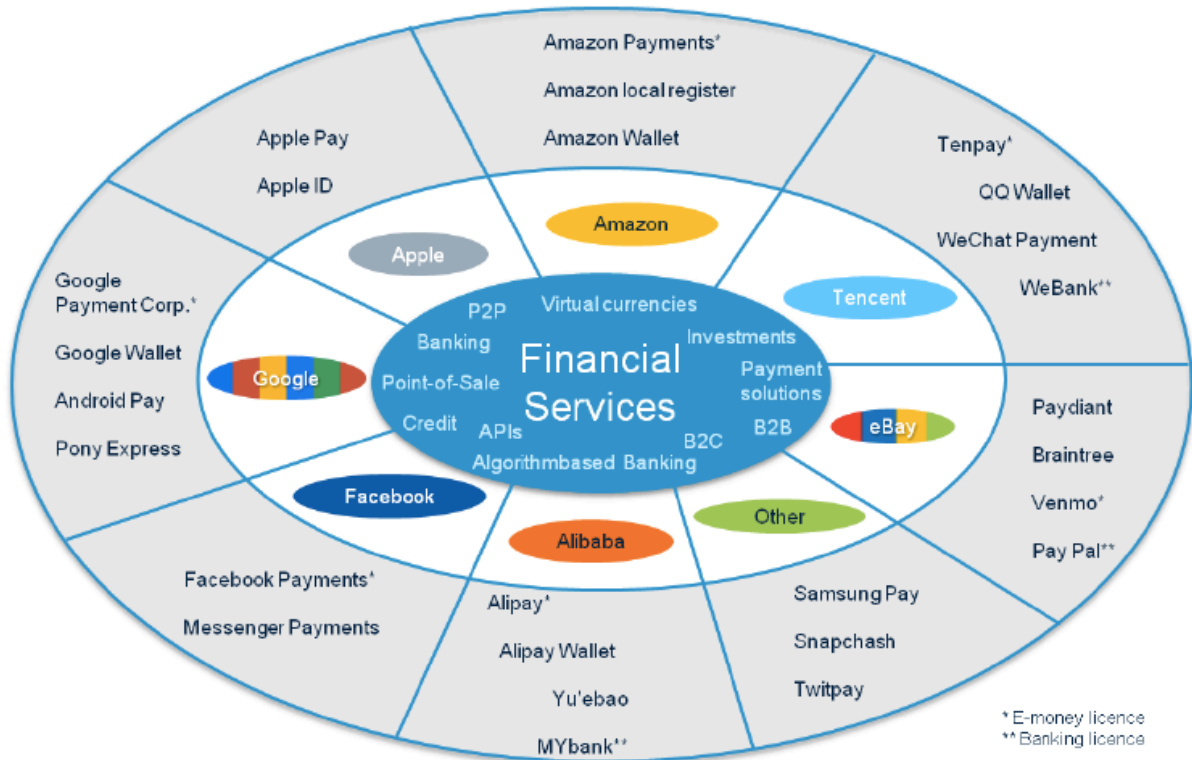
Fintech have brought significant innovations to the market. Banks and financial companies have begun to engage with Fintech companies through partnerships, incubator programs and outright acquisitions. They are trying to understand the level of threat and get answers to some basic questions. For instance, how many consumers are using Fintech products? What is the profile of the user base? What is their reason for using Fintech? In short, how much traction does Fintech really have?

The capital destined to Fintech companies was tripled in 2014 reaching 11.110 million euros and continuing growing nowadays. According to the consultant Accenture (2015), there is a great demand for capital, but also a high supply of funds or private investors who want to take positions into this market. The United States concentrates most of these funds, but operations also grew 215% in Europe, to 1.35 billion euros, thanks to the thrust of the City of London.

As Dapp T. (2015) states, the offerings of the new players already range from digital payment solutions and information services, savings and deposit-taking right through to modern online banking, multi-channel advisory and securities trading services as well as simple financing solutions and the use of compatible financial software. Although the majority of bank customers – specially the elder ones- still adhere to traditional consumption patterns, in the future, an increasing share of the population will be online. It is so important to make into account that millennials and the following generations have been educated in the digital age, so, they are looking for a suitable way to supply their needs.

The following **Graph 1** shows some financial services offered by technology companies helped by a digital ecosystem:

Graph 1: International Financial Services Offered by Digital Ecosystem

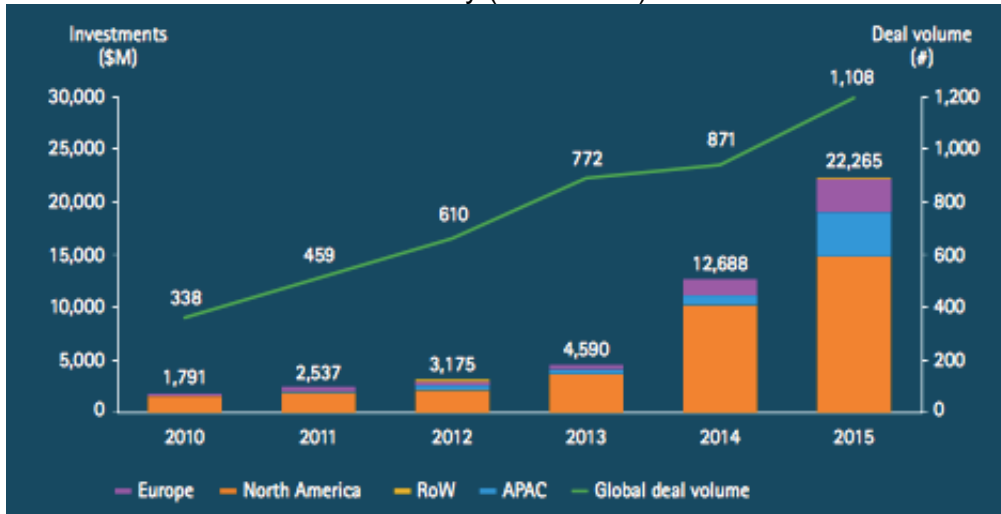


Source: Deutsche Bank Research

3. Fintech Evolution in the Last Years

According to Dapp T. (2015) Digitalization is impacting not only on certain elements of value-added processes and business models but on them as a whole, and they must also be adapted as a whole to the architecture of the digital age. The value of global Fintech investment in 2015 grew by 75% to \$22.3 billion, driven by deal-flow across continental Europe and Asia-Pacific (APAC) as we can appreciate in the following **Graph 2:**

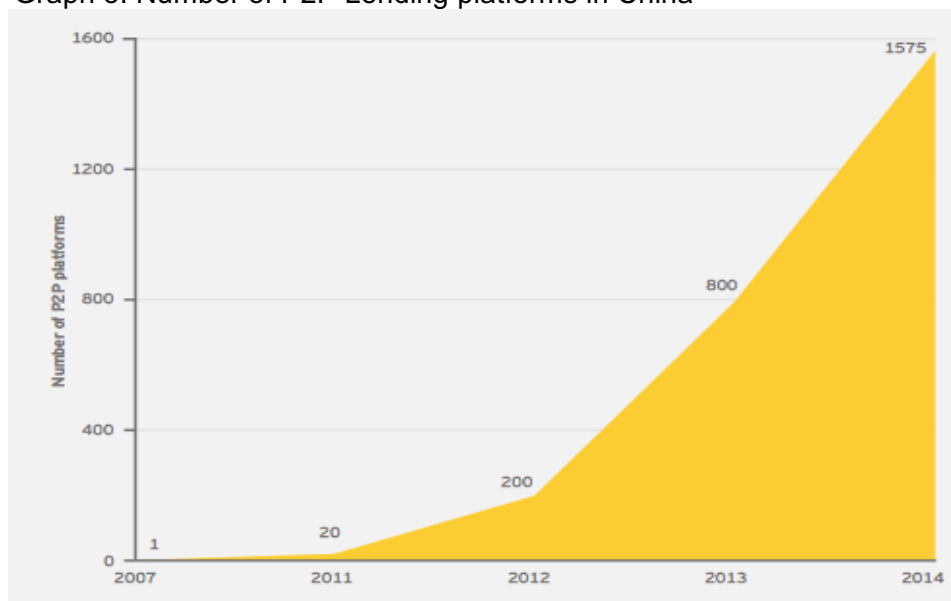
Graph 2: Global Fintech Financial Activity (2010-2015)



Source: Accenture analysis on CB Insights data

Although China is included into APAC parameter, is important highlight the Peer to Peer (P2P) lending increasing in the last years. As Douglas W. (2015) claims, “*In July 2015, China’s peer-to-peer (P2P) lending platforms numbered 2,136, with settlements of around RMB82.5 billion transactions in that single month, making it the country with the most P2P platforms in the world. As the sector went from one platform in 2007 to more than an estimated 2,000 platforms currently, the P2P sector went from too-small-to-care to too-big-too-fail, attracting a new level of regulatory scrutiny*”

Graph 3: Number of P2P Lending platforms in China



Source: wangdaizhijia.com

On the other hand, Europe has been at the forefront of financial innovation in the last years. According to Pritchard B. Irrera A. (2014) from Dow Jones VentureSource, venture capital investments in European fintech companies reached its highest level in over a decade in the first three months of 2014. In Q1 2014 financial technology companies raised a total of €166 million (+201% compared to the previous quarter), a peak never seen in the industry since 2000 when €263 million flowed into these types of companies. Nevertheless, North America is still at the forefront worldwide.

In the old continent, London has become the “cot” of Fintech companies. According to a report from Accenture Skan J (2016) in the UK and Ireland represented 53% of Europe’s Fintechs and two-thirds of the total raised in the world.

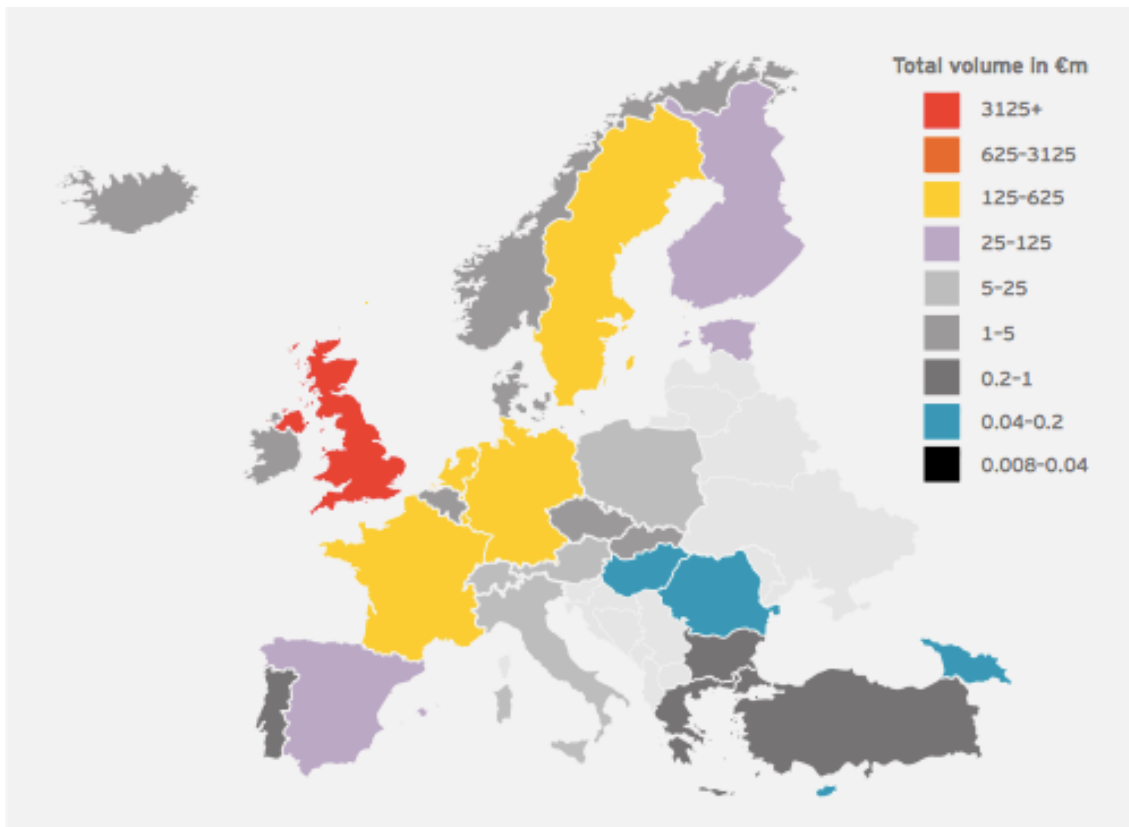
There are two main factors that contribute to the concentration of power in the British capital.

- On the one hand, London is home to many financial services companies. Moreover, “The City” has many big banks with their respected European or global headquarters. These institutions have attracted young talent from all over the world, especially skilled and well-paid digital developers in the last few years. On the other hand, due to the 2007 financial crisis -which caused many layoffs in the sector- paired with the attractiveness of startups, contributed to the establishment of London as a hub for Fintech.
- London has favorable rules that contribute to attract to The City startups and entrepreneurs helping London to become not just a suitable place to finance and banking system but also new companies searching for the best regulation. Barcelona-based Kantox is an example; this Spanish company has its headquarters in London but most of its employees are in Barcelona. What is the reason? “*Because regulation in Spain is less adapted to Fintech companies*”, claimed Philippe Gelis, co-founder of Kantox in a recent interview to Startup Explore (2015).

Nevertheless, it is so important to take into account the Brexit effects. There is no still any stable agreement between the “independent” United Kingdom and the rest of Europe. Therefore, it creates an instability about the legislation, reaction from the main banks in the City, relationships between enterprises in Europe and the U.K. Nowadays, some important banks such as JP Morgan have announced their retirement of some operations made in the City because of the Brexit. This is just one example about some unknown effects caused by Brexit. As a consequence, we have to be on alert about news about this important event because it could be a cause of the stagnation of the Fintech business in the UK and in Europe in the same way.

Outside of the U.K., the alternative finance market is also flourishing, with France, Germany, the Netherlands, Spain and the Nordic countries recording the highest rates of growth. The European online alternative finance market, excluding the U.K., grew by 147% from €137 million in 2012 to €338 million in 2013. In 2014, although the growth rate for the overall market slowed to 83%, the European alternative finance market grew by €282 million to reach €620 million. The three-year average growth rate for the European market is 115% according to the research made by Zhang B. et. Al (2015). The following map –**Graph 4-** shows us Comparative volume of alternative finance transactions in Europe

Graph 4: Comparative Volume of Alternative Finance in Europe



Source: EY The Journal of Financial Services

Nevertheless, despite the fact that Europe's importance in the industry has increased lately, it's also true that Silicon Valley still dominates investments globally. Something that according to CB Insights (2014) might change in the next few years as more companies, investors and consumers join the European space.

Pellicer L. (2016) argue that although there are a lot of Fintech in Spain and this sector is growing up so fast, Fintech arrived quite late to the main financial institutions and technology enterprises in the country. For instance, we can find the example of PayPal, American company and one of the most common online payment method worldwide, which is 18 years old already. **Graph 5** shows the main Fintech startups in Spain in the Q2 2016.

Graph 5: Spanish Fintech 2Q 2016



Source: Spanishfintech.net

Banking system is a strong field in the Spanish economy, so, that is why they need to undergo a radical course of innovation if they want to be and remain into the financial field in the next decades.

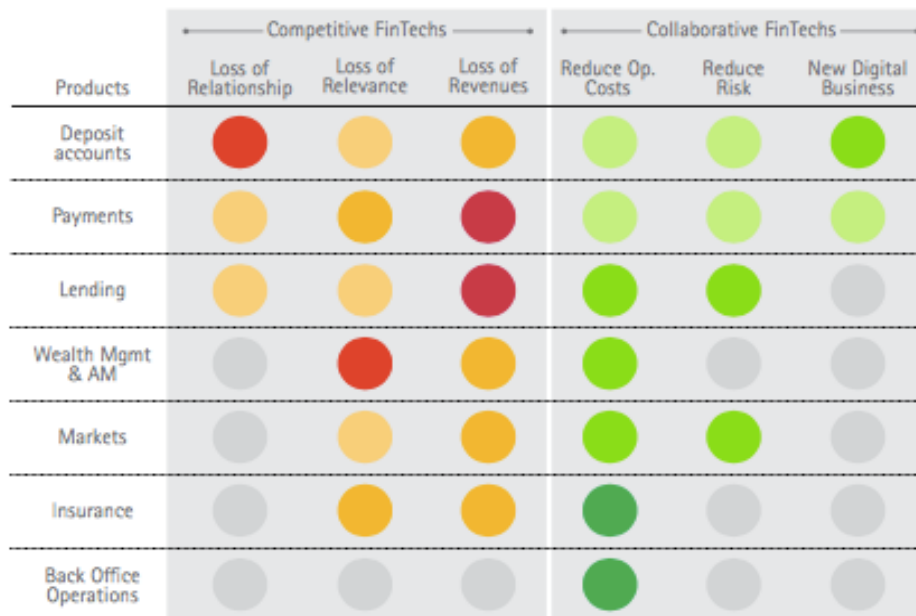
4. Competitive versus Collaborative Fintech

Currently, Fintech startups are facing two different business focus or typologies that clearly differentiate them in the market. They should decide whether they want confront that “monster” called banking sector or if, on the contrary, they pretend to join them to find the stability and the business power that they have enjoyed the last decades. In general, there are two different types of Fintech. On the one hand, there are the “Competitive” ones, whose main aim is to get out of the business traditional banking system; on the other hand, the “Collaborative” ones which are seeking to build a new financial and services structure to offer solutions to enhance the position of existing traditional banks.

Many financial services institutions recognize the role collaborative Fintechs can play to help drive their own evolution. Meanwhile, Fintechs – from those who began as collaborative players, to those who turned to collaboration after failing to compete effectively – are increasingly viewing incumbents as potential partners. Last year, the level of investment into fintechs wishing to collaborate with the industry increased by 138%, now representing 44% of all fintech investment, up from 29% last year. Whereas investment into fintech companies looking to compete only increased by 23%. So, while there is still more investment going into competitive fintech companies, there is a clear and growing appetite, from both sides, to collaborate.

As **Graph 6** shows, banking system is losing a great number of deposit accounts (In the upper left part of the graph mark with red color) because of competitive Fintech irruption. Although, they are gaining new digital business reducing costs operations and risk thanks to Collaborative ones (In the upper right part of the graph mark with green color). On the one hand, green color in the right part of the graph represents the potential opportunities offered by Collaborative Fintech. On the other hand, red and orange colors represent the threats which banking system is facing because of Competitive Fintech.

Graph 6: Fintech heat map. Threats and Opportunities



● >50% of deals
 ● 30-50% of deals
 ● 10-30% of deals
 ● <10% of deals
● >50% of deals
 ● 10-50% of deals
 ● <10% of deals
 ● Neutral

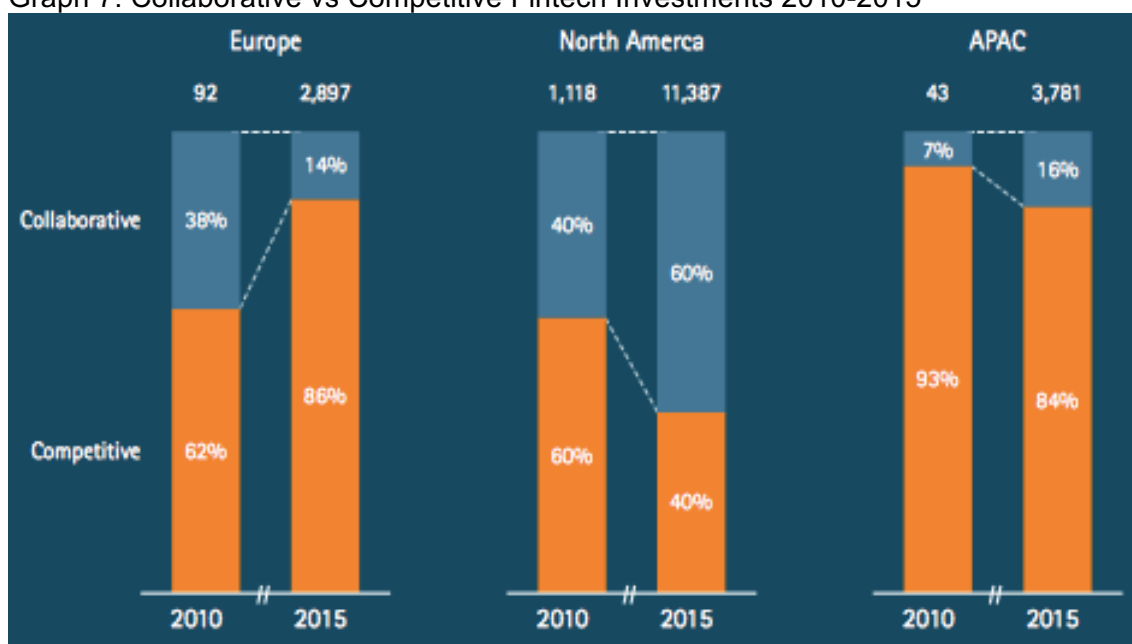
Source: Accenture analysis on CB Insights data

The ratio of competitive versus collaborative investment throughout the world totally differs from one point of the globe to another. There are places such as New York where collaborative Fintech have been the majority of those kind of new startups in the market where the proportion of investment in collaborative Fintech companies has grown from 37% in 2010 to 83% in 2015.

Even though in the UK where regulatory and legal environment is more favorable to compete, this trend is reversed, 90% of investment going to would-be competitive Fintech companies. These trends are reflected regionally whereby the investment dollars have moved towards more competitive firms in Europe and more collaborative firms in North America.

In the **Graph 7** there is the comparative between Competitive and Collaborative Fintechs in Europe (Specially UK), North America and Asia Pacific.

Graph 7: Collaborative vs Competitive Fintech Investments 2010-2015



Source: Accenture analysis on CB Insights data.

Nevertheless, while –overall- North American Fintechs are trying to supply the needs of the banking industry, they are not receiving reciprocal investment from them. In 2015, banks participated in less than 10% of all reported Fintech deals, totaling less than \$5 billion. Skan J, et al. (2016)

Nonetheless the main area of interest is traditional financial institutions, retail business, although it is presumably only a matter of time before corporate clients and institutional investors will also be supplied and courted with simple data-based and algorithm-based financial services by new vendors. Many advanced web and algorithm-based services from the retail business can also be deployed in the corporate client segment or the Business to Business (B2B) segment. Dapp T. (2015)

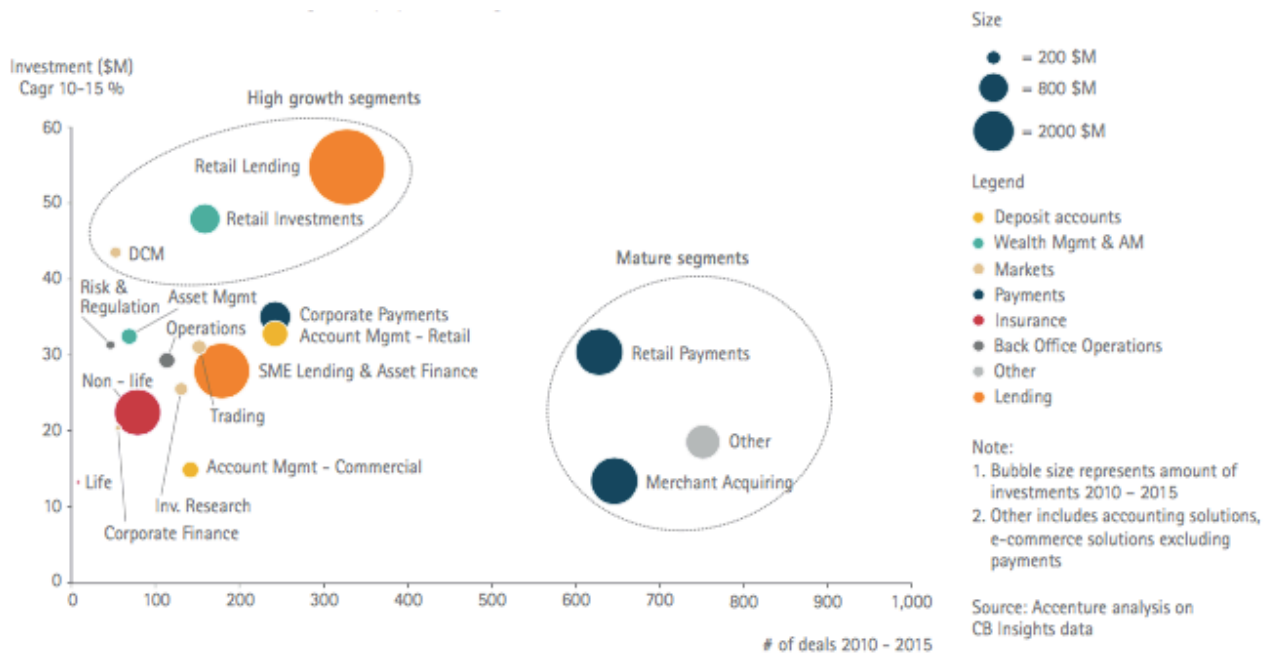
5. Fintech Financing Activity Applications Nowadays

In this section, we are going to focus and assess the different typologies or uses Fintech companies are adopting nowadays. Fintech entrepreneurs are impacting financial sector from a simple digital payment to other fields more sophisticated such as wealth management and budging and financial planning. First of all, is important to give an overview about Fintech scope and the range of business are working on. Also, its products offered to have a clear idea about the current situation and how it is impacting to the financial industry.

a. Fintech Activities by Products

Although retail payments, financial planning and money digital transfer have been the most important areas where Fintech companies have been working harder, there are other many fields which Fintech enterprises are growing so fast each time. **Graph 8** give us an overview about the different and specific activities or sectors Fintech are entering to the market by products giving a different approach and enhancing financial activities. This graph could help us to consider how much money are investing and the main areas they are working on:

Graph 8: Fintech Financing Activities by products



Source: <http://www.fintechinnovationlablondon.co.uk>

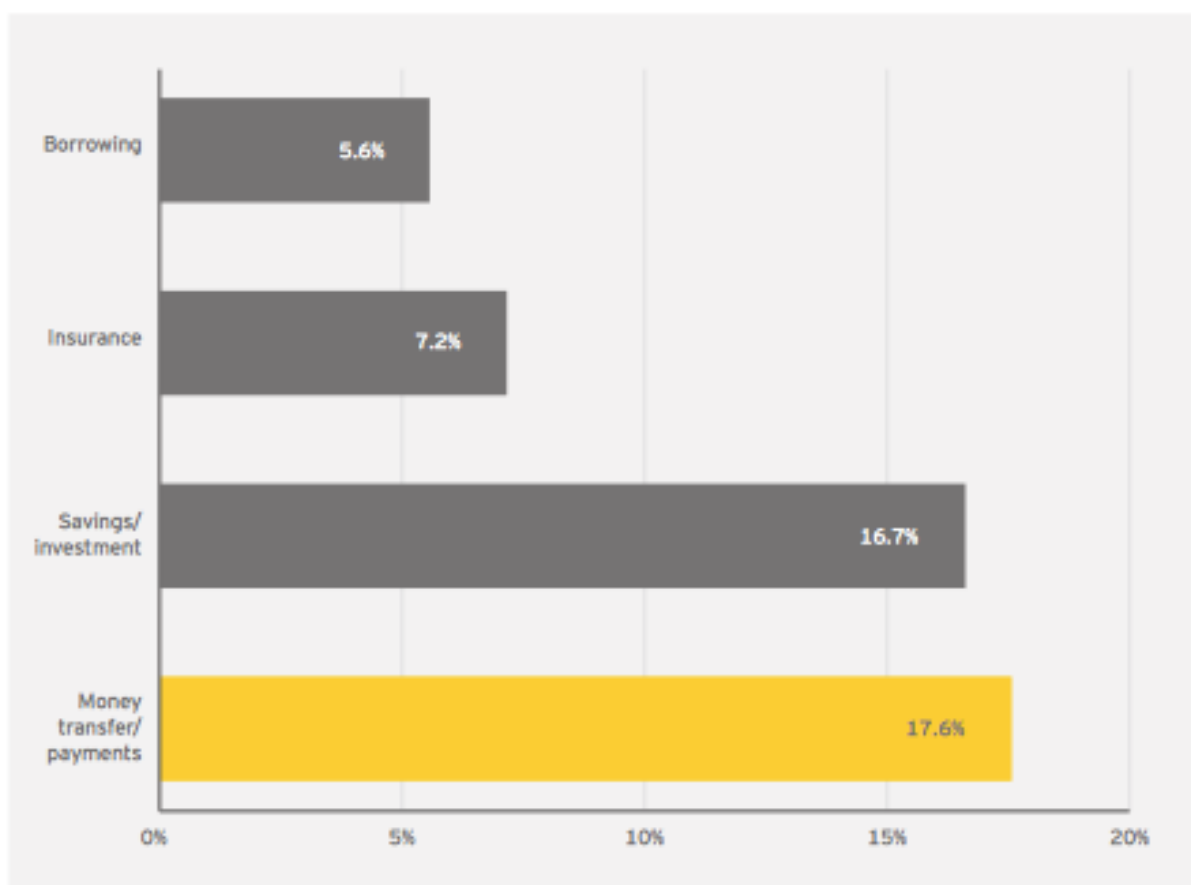
As we can see, there are several fields which have been controlled by banking system until the last decade; that is why is important to have into account how these changes are affecting to the traditional banks.

It's a common mistake to associate Fintech with just mobile payment companies such as US-based Square or iZettle. However, there are several fields where fintech touches a lot of other areas. According to Zhang B. (2015) statement "Since the global financial crisis occurred in 2008, alternative finance — which includes financial instruments and distributive channels that emerge outside of the traditional financial system — has thrived in the U.S., the U.K. and Continental Europe. In particular, online alternative finance, from equity-based crowdfunding to peer-to-peer business lending,

and from reward-based crowdfunding to debt-based securities, is supplying credit to Small and Medium Enterprises (SMEs), providing venture capital to start-ups, offering more diverse and transparent ways for consumers to invest or borrow money, fostering innovation, generating jobs and funding worthwhile social causes.”

Over the past years, Fintech companies have been focused on retail payments and lending overall. For instance, Crowdfunding, Crowdlending, Money Transfers or Payments and Saving or Investing platforms are the most common operations offered by Fintech companies and used by millennials population as the **Graph 9** shows:

Graph 9: Fintech Services Used by Millennials in Australia, Canada, Hong Kong, Singapore, the United Kingdom and United States in 2015.



Source: EY The Journal of Financial Services

Crowdfunding and Crowdlending are one of the most known areas in Fintech specially because of there is not banking intermediation. As a result, fees are lower and we can do the whole operation through digital platforms interacting directly with the investors. That is one of the most common reasons why people prefer this way to make that kind of simple operations nowadays. However, recently are arising different types giving another approach to the business, providing innovations and enhancing other fields in the financial services such as insurance, lending, market investments, wealth management, etc. Insurance, for example, is rapidly emerging as the next big thing in Fintech, with investment into firms with **InsurTech** propositions more than tripling from 2014 to 2015. Other fields Fintech are soaring faster than others are, for instance, budgeting, portfolio management, and financial planning through digital platforms. These platforms are increasing especially among Millennials, who seek assistance in managing

increasingly complex financial needs, such as balancing spending with paying their student debt and saving for a hypothetical future house, car or travelling.

In addition, a growing general preference –specially among Millenians- for digitalization and simple design has attracted in the same way to older and more sophisticated investors as well. As a result, three major categories of consumer Fintech apps have emerged, offering budgeting, portfolio management, and financial planning services encompassing almost all ages.

b. Crowdfunding and Crowdlending

According to the definition from UK Crowdfunding Association (2017) *“Crowdfunding is a way of raising finance by asking a large number of people each for a small amount of money. Traditionally, financing a business, project or venture involved asking a few people for large sums of money. Crowdfunding switches this idea around, using the internet to talk to thousands – if not millions – of potential funders. Typically, those seeking funds will set up a profile of their project on a website such as those run by our members. They can then use social media, alongside traditional networks of friends, family and work acquaintances, to raise money.”* There are different variations of crowdfunding but all of them based on the same principles; For example:

1) Reward Crowdfunding:

One of these variations is Reward Crowdfunding. In this case, investors contribute to the cause just because they believe in the cause. Investors in this case just demand a kind of reward –not a monetary reward-. It consists on rewards such as acknowledgements on an album cover, tickets to an event, regular news updates, free gifts and so on. Returns are considered intangible. Donors have a social or personal motivation for putting their money in the cause without expecting nothing back in exchange, except perhaps to feel good about helping the project.

2) Debt Crowdfunding:

In this case, investors get their money back with an interest in exchange. Is also called Pear to Pear lending (P2P lending). Returns are financial, but investors have the benefit of having contribute to a cause they believe in. In the case of Microcredits, it consists on lending money to –usually- very poor and developing countries without any financial return; just the benefit of collaborating to a social cause.

3) Equity Crowdfunding:

Consist on an investment where people make their contributions in a business opportunity in exchange of revenue, shares or participations in the business project. In this case, money is exchanged for a company shares, or a small stake in the business, project or venture. As with other types of shares, apart from community shares, if it is successful the value goes up. If not, the value goes down.

Since 2014 industry has increased progressively all around the world including Spain. Through this method, particular investors contribute directly to private projects without banks or other financial intermediaries in exchange an interest rate –generally- lower than the traditional o commercial banking system.

4) Crowdlending:

Consists on an innovative model that allows financing projects, SME's and so on, by a financial community without attending to a bank or other financial institutions. Basically, is a model of Crowdfunding where enterprises (overall SME's) or entrepreneurs demand for a financing their business. Moreover, there is an option to finance not just a business project but also donations or social investment for a special cause.

This model has been growing faster in the last years worldwide. In 2013, Crowdlending moved about 3 billion dollars. This is a growth over than 150% in comparison 2012. It is due because of several reasons:

- The rapid development of the internet networks allowing to store and moving large amounts of information on the servers at the moment.
- The great popularity of social media and other internet communities on the internet.
- The sophistication of investors, who are increasingly feeling capable and empowered to manage their own investments.
- The distrust by customers with the financial sector in general owe to the 2007 financial crisis
- The demand by customers of cheaper, ethics and transparent financing alternatives.

c. Insurtech:

Insurtech is word that results of combining “insurance” and “technology”. It was inspired by the term Fintech. Insurtech companies are exploring a portion of business that large insurance firms have less incentive to exploit, such as offering personalized policies to each customer situation, social insurance to allow people with a low income being into an insurance system as well.

Insurtech take profit from the internet information streaming of data enabling devices to communicate dynamically helping in this way to share information. As a result, Insurtech companies offer price premiums according to observed behavior. As Investopedia Website (2017) explains *“Among other things, Insurtech is looking to tackle this data and analysis issue head on. Using inputs from all manners of devices, including GPS tracking of cars to the activity trackers on our wrists, these companies are building more finely delineated groupings of risk, allowing products to be priced more competitively.”*

d. Budging and Financial Planning

The main purpose of these platforms is helping users to achieve their savings goals organizing their daily finances month by month. Basically, consist in software that tracks income and expenses, updates spendable cash after every transaction, and helps customer categorizing expenses into fixed and variable categories (needs vs. wants). In addition, the software help users build up their savings by first taking out their desired savings amount from their spendable income. Cash left unspent in the end of every month automatically goes to savings amount as well. One company in this space is Level Money, described as “the digital equivalent of opening your wallet and seeing how much you have left. This business focus is soaring faster among Millennials that are searching for an enjoyable way to save their money through a digital platform; they could access

whenever they want solving their problems and needs at the moment. Therefore, it is of vital importance to assess how significant are Millennials to the current financial market.

As Augustine A. and Marcial N. (2015) state *“Millennials currently make up 26% of the U.S. population, with more individuals on the older side than the younger side, 39.8 million (16-24) vs. 43.5 million (25-34). Using data from the Bureau of Labor Statistics’ Consumer Expenditure Survey, we found that younger consumers under the age of 25 have a negative savings rate; whereas, older consumers between ages 25-34 tend to have a positive savings rate. Consequently, we believe that budgeting apps can be a valuable tool for older Millennials, who are starting to amass savings, as well as for younger Millennials as a learning tool for the future. Meanwhile, portfolio management platforms would be primarily attractive to the older cohort who has the funds to begin investing for retirement or other purposes. Banks can benefit from offering loans to younger Millennials who are short of money, while offering loans and taking deposits from the older set which saves more.”* Therefore, Millennials represent a great part within the Fintech market which will be focus on satisfy their needs.

e. Digital Wealth Management

This model is characterized because it uses a direct-to-consumer business approach to offer fully, instantaneous and automated investment services, without assistance from a financial advisor, to obtain a diversified investment portfolio faster than going to the banking office. Firms like Wealthfront and Betterment (the most important and at the forefront in this category) have differentiated their business themselves by offering easy-to-use tools to consumers that simplify the client experience. Being a new client is so easy; New clients complete a simple profile and risk tolerance through a questionnaire online and receive a recommended portfolio to them. This portfolio is composed mostly by of Exchange Traded Funds (ETFs), that has been optimized to meet their needs. These fully automated investment accounts offer direct deposit, periodic rebalancing, dividend reinvestment and tax-loss harvesting, among other features. All these characteristics with a lower-fee expense than banking advisor.

f. Advisor-assisted digital wealth managers:

This model is similar to the previous one, but, it combines the digital client portal and investment automation with a virtual financial advisor generally conducting simple financial planning and periodic reviews over the phone platforms. Firms like Personal Capital, Future Advisor and LearnVest are the best-known companies in this category. To further differentiate themselves, they offer value-added services like asset aggregation capabilities that enable the provision of more holistic advice than fully automated wealth managers, based on a comprehensive view of client assets and liabilities, as well as expense tracking and advice on budgeting and financial goal planning.

g. Money Transfer and Digital Payments

Transferring money between countries and continents among different currencies could be an expensive transaction, but, nowadays companies such as TransferWise, Kantox or WorldRemit provide a cheaper and more flexible solution to consumers and corporations as well. These companies offer a better fee solutions because they do not work by “stages” like the majority of normal banking transactions. Money transfer Fintech

charge you a predetermined percent no matter how much money you want to transfer. Aversely, banks charge you a fee if you are in one or another range or stage.

These are just a few examples of sections within the Fintech sector that are being transformed by technology. But there are many more, such as mobile wallets or Bitcoin-related companies. Lopez J. et al. (2015)

6. Implications for the Banking System

The pressure is growing for traditional banks and financial companies. They now need to respond promptly with new strategies given the changes to improve their system adapting it to a competitive environment and new customers' needs and challenges. Fintech firms are entering to the market threatening the market consolidation of the banks.

Banking system is changing rapidly, we are constantly watching how banks offices are closing and even more employees are being fired. Fintech companies are enhancing financial and banking services and making them more intuitive, interactive and easy-used platforms by clients and financial services costumers. *According to the statement of Gulamhuseinwala I. et al (2015) "Banks and insurance companies have historically been protected by barriers to entry. These include the complexity of the regulatory environments in which they operate, the lack of "killer apps" that have come along to replace them, and the trust that consumers and governments implicitly have in brand-name financial institutions. This protection has been reinforced by a degree of customer inertia, and by the burdensome process of switching and opening new accounts.*

However, all of these barriers are starting to come down. Regulators, especially in a post-crisis world where banks' reputations have taken a hit, are actively working with new entrants in the hope of giving consumers more choice. Some of the new Fintech services are simply better, offering deeper or unique value propositions, and a more intuitive experience than traditional financial products."

Traditional bank and insurance customers –overall millennials- have learned that they can get some of what they need online, in the same way that traditional retail customers, 10 or 15 years ago, embraced the online channels. Fintech startups have brought significant innovations to the market. Some of these more traditional companies or banks have begun to engage with Fintech companies through partnerships, accelerators or incubator programs and outright acquisitions. They are trying to understand the level of threat and get answers to some basic questions. For instance, how many consumers are using Fintech products? What is their reason for using Fintech? In short, how much traction does Fintech really have? As a consequence, and because of the answers to all this questions, banks and insurers are already beginning to work with Fintechs through partnerships and acquisitions. In doing so, they are tacitly acknowledging that some level of coexistence between the new and the old will be inevitable in the future. Dapp T. (2015).

On the opposite site are still the "traditional" banking customers. Despite the number of robot-advisors is growing faster, 40% of traditional advisors don't believe that this type of business based firms pose a legitimate threat to their business, as their target markets differ greatly. Banking system focus on affluent clients, normally at the age of 40 years old and older, who are more likely to use traditional wealth management services because of their product special offering, treatment, personalized services, and tax strategies to pay as lowest is possible. Most robot-advisors offer tax-loss harvesting, but this may be insufficient for those who typically pay 40% of their income though taxes to the government.

According to the opinion from Agustine A. and Nava M. (2015) *"Unlike peer-to-peer lending or crowdfunding platforms, budgeting and portfolio management apps present low barriers of entry and should be relatively easy to incorporate into a bank's product offering. In addition, if the bank provides a highly competitive and differentiated digital solution, its brand recognition could increase significantly among certain groups*

that rely greatly on social media to express their customer experiences. Moreover, successful incorporation of these innovations can provide a huge boost to the bank's bottom line if greater savings deposits can be captured at a low cost and become a stable source of funding. We do not believe that the rapid proliferation of fintech will render banks obsolete; however, banks may find it more difficult to stay profitable in an environment of prolonged low interest rates and outdated options."

Banks should incorporate budgeting, financial planning and portfolio investment apps into their business models, mainly as complementary products that support customers acquisition efforts and bring in some fee income in the process. Savings and investment apps have an advantage in that their young client base is a continued source of growth for their business. This is why, if banks incorporate these services into their offerings, they have an opportunity to attain a critical base of customers whose financial situations will eventually become more complex. By attracting customers at a young age, banks increase their ability to cross-sell more advanced banking products and services over time.

In accordance with the ideas above stated, banks are doing a great reform efforts searching for appropriate solutions for adapting their business models to the modern era and offer many business opportunities. Furthermore, many Fintech start-ups and are actively seeking strategic alliances with consolidate banks or larger firms in order to take advantage of the latter's infrastructure, expertise and customer known reach. One of these examples are incubators or accelerator programs. Showing up next, we are going to define accelerator programs.

Accelerators Programs in Business

One of the most common problems faced by new entrepreneurs and startups is their needed access to capital. Accelerators and Incubators programs solve this problem by mentoring and structural resources in order to prosper made by the main financial institutions. Accelerator programs are designed to prevent those premature deaths in the first stages of the business. Accelerators are organizations that offer a range of support services and funding opportunities for startups. Normally, financial institutions tend to work receiving new startups in months-long programs generally offering mentorship, office space and supplying chain resources. But, even more importantly, these kinds of business accelerator programs offer access to capital and investment in return for the equity helping entrepreneurs and solving their main problem at the beginning of their path. In the end of their mentorship, startups essentially 'graduate' from their accelerator program after three or four months — which means that development projects are time-sensitive and very intensive.

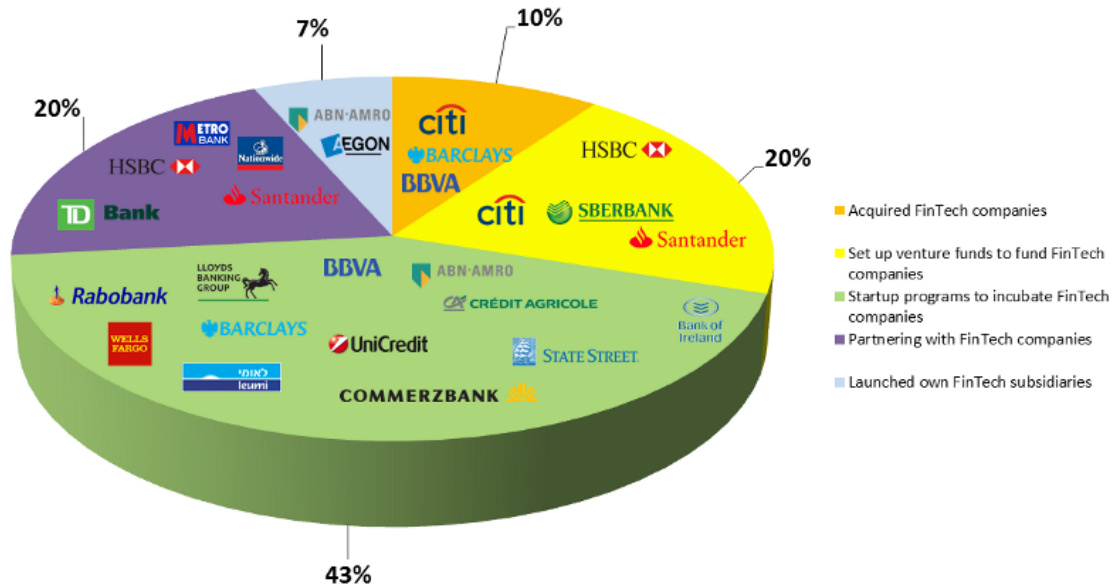
The main reason accelerators have exploded in popularity is because of they are designed to provide the best of both worlds for both startups and entrepreneurs as well as investors. Riggins N. (2016)

In the past few years, accelerators such as Techstars or Startupbootcamp have launched their own fintech programs. Techstars did so by partnering with Barclays -a sign that traditional banks are paying attention to what's going on in the tech scene- and launching a 15-week program that aims to accelerate 10 startups in London as shows Barclays Accelerator Website (2017).

According to the statement made by Swamy A. (2015) *"Some of these FinTech companies sell their solutions to banks while many others are bypassing their traditional banking client base and are offering their solutions directly to financial services*

customers over the Internet with innovative and cost effective value based offerings. They include companies that offer credit/lending services”
 The following **Graph 10** – highlight many examples about the reaction and behavior of some banks with Fintechs.

Graph 10: Mergers or Accelerator programs made by the main banks.



Source: <https://medium.com/@avinashswamy/how-are-banks-reacting-to-fintech-891617c69321>

Nevertheless, one of the most important facts that people often underrate in the digital debate in the financial sector is that traditional banking system possess huge volumes of valuable data harboring considerable potential for new ways of communicating with their traditional customers. Thereby, traditional banks should use modern analytical techniques with the mandatory consent of the customer and transparent communication channels to derive additional insights from the personal data provided by the customer. Transparency measures help to overcome customer mistrust and minimize data protection infringements. As Skaan J. et al. (2015) claims, “*Fintech start-ups themselves are not emerging as the main competitive threat for most areas of banking. Banks that must assess, adapt and adopt these new technologies most quickly will be best positioned to achieve their desired position in the new industry structure.*”

7. Fintech Benefits and Drawbacks

Fintech platforms offer numerous benefits to its customers in the financial services. Nevertheless, despite some of the benefits we have highlighted in this study, there is still quite skepticism by customers about the ability or the reaching of Fintech to provide financing or giving financial services to customers. Thereby, it is of vital importance to assess the benefits and drawbacks Fintech companies may offer to their clients.

a. Benefits

- Digital entrants are not only charging lower fees. Moreover, they are providing more transparency to their customers. For example, by exposing how much customers are paying other financial providers through online fee analyzers and alerts when new fees are being charged. This is in stark contrast to the opaque and complex fee schedules offered by many traditional firms, which make it difficult for customers to understand exactly how much they are paying for their investment management and advice. Lopez J. et al. (2015).
- Fintech enterprises have also been benefited from the open support of governments looking to promote competition and innovation in Financial services.
- Thanks to technology and innovation, creating a new company is nowadays easier and cheaper than ever before. It can be also applied to the financial sector. Having into account this have been a sector that didn't change much in the past 10 to 20 years, but that has evolved dramatically lately.
- Collaborative Fintech companies allow to banking system put in a position to operate with greater potency against competitors in order to stand up to the new market players from the technology-driven, non-bank sector with their own strategies.
- Fintech companies brought enormous potential benefits to all business, especially, entrepreneurs or new and existing small businesses. For instance, small and medium sized enterprises (SMEs) are crucial for economic growth of all kind of countries and sometimes, some of them can face difficulty in securing the financing they need to survive and go further. Fintech enterprises can offer solutions that are efficient and effective at lower scale which will benefit small businesses and provide them with increased access to more diverse funding options.
- More competition for client business should result in a higher standard of care experienced by clients
- As the Treasury of the Australian Government website (2017) claims, *“Innovative Fintech products can be better tailored to the needs of small businesses. These include marketplace (peer-to-peer) lending, merchant and e-commerce finance, invoice finance, online supply chain finance and online trade finance. Innovative finance solutions can significantly assist small businesses by providing them with better cash flow, improved working capital management and more stable or secure funding. For example, Alibaba monitors and evaluates online transactions to identify commercial opportunities and then offers loans to small business through Alipay.”*

b. Drawbacks

- The reliability of robot-advisors has not been tested yet, and their performance in periods of extreme volatility is yet to be seen. Therefore, we cannot ensure about their capability. At the moment, the main performance of Fintech platforms in the volatility moments is the announcement through specifically alerts to the users inherent in these tools. The reliability of these platforms is especially taking into account the probability of higher future interest rates, government announces, news at the moment and so on.
- Fintech regulation is not still steady; so, future regulation by the majority of governments could disrupt the actual Fintech business. More regulation would bring additional costs, which could erode the competitive advantage of a low fee structure that is competing with the banking system nowadays.
- The majority of robot-advisors offer a standard tax-loss strategy but this may be insufficient for some customers who typically pay 40% or more of their income to the IRS. Fintech companies don't offer a strategy having into account each personal situation of their customers; there is almost a general strategy to all customers.
- In the same way as tax-loss strategy, passive wealth management could be a potential threat to customer's savings because of Fintech platforms generally apply a standard strategy to their customers when they receive the money putting the whole amount into the market at the same moment leaving apart the current situation or the market study to assess if that is the ideal time to do transactions.
- Even though peer-to-peer lending removes the banking intermediary from the process, normally, it also involves more effort and risk to the investor than the general brick-and-mortar lending scenarios.
- Leaner operations within firms, as record-keeping and other tasks become automated, eliminating the need for certain personnel creating unemployment in short term.
- An Increase risk/exposure to "bad advice" as consumers assuming by them direct access to financial products, without guidance from financial planners or professionals.
- Could be an Increase of potential identity theft, fraud and other types of cybersecurity problems as more personal information moves online/to the cloud.
- Fintech platforms don't provide the ability to control emotional investing by consumers who interact less with a financial professional advisor.

8. New Professional Profile from Financial Sector

The digital revolution has reached all sectors and the most traditional are now facing a renewal of both, their structures and their professional profiles. This is the case in the financial area. The introduction of technology and online funding proposals have created new employment niches among experts in this area. Today, the specialist in digital finance or financial technologist is one of the most sought after profiles.

Although this professional is one of the most required at the moment, this sector still has to surpass several phases to update of the whole. For instance, paper remains essential in key operations of financial departments, such as invoices, vendor proposals, payrolls, or investments. With digitization, finance specialists will have much more time to devote to strategy, study economic operations and be present in business decisions. The key is that a financial professional can dedicate much more time to strategic proposals.

Financial experts must have at their disposal very powerful technological solutions and their function will be to know how to use all these tools and manage the data of each entity well. Little by little, finance departments will take over data management rather than asset management. In addition, we must not forget the high salaries that are given in this area. For example, those who access their first job are earning between 30,000 and 35,000 gross euros per year, figures that are above average.

New financial professionals have the possibility to develop their careers along with the big technological competitors such as Facebook, Apple, Google, Amazon or PayPal, who have decided to go further in their business taking advantage of its great brand image given that unlike the financial sector; they have fans rather than customers. In general, SMEs and large companies are demanding a hybrid professional profile, who combines technical knowledge, knows the products of the market and is an expert in data analysis. This is also one of the favorites of banks, as well as Fintech enterprises.

New professionals should be specialized in digital operations, but also must understand everything surround us, from business development to what the competition does. Professionals coming from the business or economics areas seem at first to be the ones who best fit this demand, but a great deal of talent is also among mathematicians, computer scientists and statisticians who have had experience in the field of finance. Therefore, it is so important to have higher education, masters or postgraduate degrees in finance and digital operations, as well as in 'big data'. It is also vital people with entrepreneurship attitude, innovation and creativity. This risk leading to a knock-on constraint where talented people who are best able to adopt innovation, no longer see the bank as an attractive place to work. Casilda A. (2016).

9. Perspectives to the Future

There are many opinions about the evolution of Fintech enterprises in the following years. It depends overall of the approach Fintech companies focus their business.

For instance, according to the Lopez J. et al. (2015) opinion, *“we believe that the current landscape will continue to change over the next few years as firms continue to evolve their models to differentiate themselves, maintain revenue growth and achieve economic sustainability. This evolution will go beyond the development of the underlying products and services. There is already evidence of this, with some digital entrants starting to white-label their platforms and service offerings to RIAs, as in Betterment’s and LearnVest’s partnering with an established industry player, while other firms are focusing on millennials and capturing white space in that market. We see the digital wealth management market continuing to evolve over time with different business models, which may include some level of consolidation and partnership or acquisitions by traditional wealth management firms.”*

This is how modern banking will look. Modern data analysis methods will be used just as routinely as a seamlessly integrated web of all distribution channels. Flexible digitized infrastructures will in future enable banks to implement modern technologies and appropriate finance-specific internet services efficiently and above all in a timely manner with the aid of (open) programming interfaces. Strengthening one's own brand and identity as well as the obligation to handle client data confidentially will also help to deliver a sustained increase in customer satisfaction and loyalty. Dapp T. (2015).

As Deloitte (2017) shows on its website, there is a prospection estimated that financial startups could capture up to \$4.7 trillion in annual revenue and \$470 billion in profit from established financial services companies. This statement is based in a March 2015 Goldman Sachs equity research report. Financial services are focusing in a transformative change; for instance, mega-corporations such as Facebook, Amazon or Alibaba are interested in putting their money into Fintech investments. They are using the agility and flexibility promised by Fintech solutions to develop innovative financial products that help people manage their money in new ways. While incorporating new financial technology creates risk, proactive executives can find a wealth of opportunity to use risk to create value.

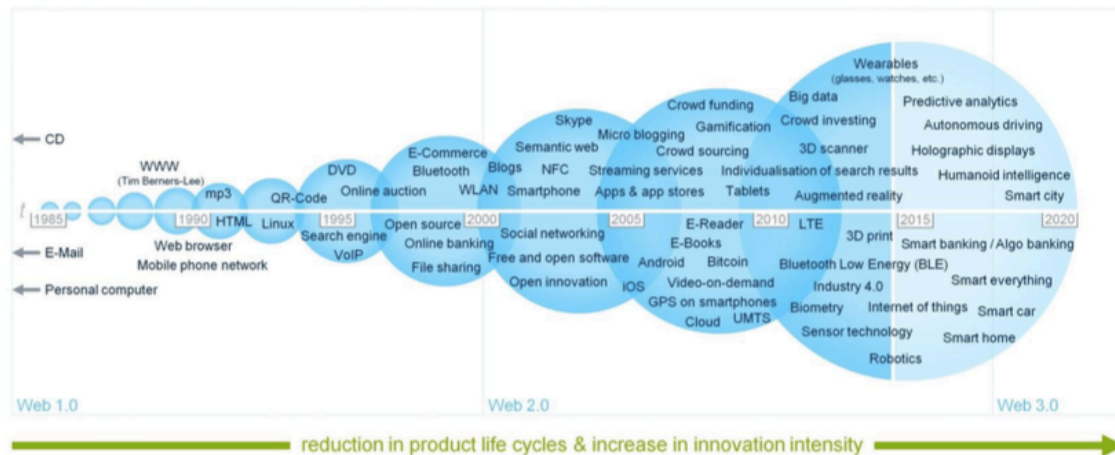
Fintech have a little regulatory nowadays and this is the main reason this model is still working, but, is because of this reason they need to find out a consolidated business model to develop their platforms in the best way. Forming partnerships and industry alliances is one Fintech needs that can help bring new technologies to broader adoption and work out implementation kinks. Forming this partnerships with consolidated companies and finding areas to work on together can improve customer relationships and user experience. It can also help the technology become more mature.

As Krishna D. (2017) states, *“Fintech and other emerging disruptive technologies generate excitement, but with the disruption comes changes to existing architecture and the creation of new implementation and deployment challenges. There’s broad recognition that the technologies can be used to solve certain problems, but financial operations and services are complex. Also, these solutions aren’t point-and-click. We’re currently in the realist phase of ‘This is what these technologies can do. Now how do we incorporate them?’. While there’s great enthusiasm about how transformative these technologies can and will be, the reality of implementation leads to operational challenges, such as ‘Which issues do you solve first?’ and ‘How do you solve them without impacting other business?’ Financial executives now have to figure out how to*

incorporate and apply new technologies, as well as the short- and long-term impacts on existing processes and systems. It's always harder than you think, but with strategically taken risks can come significant rewards."

As a final point, **graph 11** shows the evolution the last 20 years and perspectives in short-term of digital enterprises and digital applications in general. Whereby, is heralding the continuous growth is still beginning.

Graph 11: Evolution and short-term perspectives in the digital platforms field.



Source:

https://www.dbresearch.com/PROD/DBR_INTERNET_ENPROD/PROD0000000000343885.jpg

10. CONCLUSIONS

In this paper, we have assessed the main points about Fintech companies giving an introduction to the business concept, evaluating their evolution and importance in the last decade overall changing the way customers access to the financial services. Moreover, we have made an important comparison between competitive and collaborative ones giving an approach from both points of view. Also, we have seen how Fintech products are changing banking system and how they are facing this problem. The next step has been analyzing some drawbacks and benefits of this kind of business. Finally, we have mentioned the perspectives according to some author's opinions about the evolution of the whole financial system. To sum up this study, it is of vital importance to emphasize and highlight some conclusions extracted from the points mentioned before and the main sources consulted.

Firstly, requires a special mention the importance of Europe in the Fintech expansion in the last years. Europe has been at the forefront of financial innovation having London as a reference point becoming the main European city in this kind of business with a 53% of the Fintech companies in the old continent. This is because of and thanks to its favorable legislation and its facilities to undertake a new business. Although, is still a mystery the reactions of the main banks and enterprises based in London because of the "Brexit". This event could bring important changes to relationships between UE-enterprises and the London-based ones. Agreements between the European Union and The United Kingdom should support the appropriate and proper commercial, tax and human movement relationships to encourage the Fintech growing as have been until this moment as we have seen. So, the Brexit could be one reason because of Fintech growth could result stagnation and it depends overall of the agreements will be carried out in the next months and years.

Leaving apart this reason, the United States is still on the top of the business worldwide harboring the main Fintech enterprises known until this moment such as PayPal, Facebook, Amazon and others. These enterprises have achieved the millennial market focusing on their needs allowing them be the most essential environment on the smartphones and helping them becoming bigger over and over again.

Another point is essential to let clear and emphasize is the two-different business focus from Fintech companies. On the one hand, the Competitive ones are focus on achieve and "snatch" customers from traditional banking system offering and providing them the facilities to get into the financial market and financial services through lower fees, crowdfunding and crowdlending leaving apart conventional financial institutions and giving its services through digital platforms. On the other hand, we have the Collaborative ones. In the short-term, banks need to starting to look at new tactical ways to improve their business models by investing in easily adoptable technologies within the industry. New technologies require new skills, so banking system should invest in their people to ensure they have the right skillsets for their new digital environment at every level of the organization. Thereby, this kind of Fintechs are focus on establishing and get a relationship with the conventional financial system enhancing and giving solutions to the customer's needs nowadays. Many collaborative Fintechs are being supported by the largest banks such as BBVA, Barclays, Deutsche Bank and so on. These financial institutions supply to Fintechs their business structure allowing them to get into a mature market structure and helping them with their entrepreneurship.

It's further evidence that the relationship between banks and alternative lenders, including Fintech firms, is not necessarily antagonistic. Banks can benefit from building relation and partnerships with Fintech through incubators or accelerator programs

solving them their main problem such financing and providing a mature structure developing their business in the best way and helping them grow up in the business. Fintech enterprises can also help drive improvements in traditional financial services and promote disruption and collaboration through innovative new products and services, which can offer benefits to costumers and other sectors of the economy. That is the main reason why banks should be working with the Fintech industry to prepare our financial system and economy for the future. This reason it is such an important part of the new transitioning in the economy.

It is also important to mention the main reasons financial customers are adapting digital platforms and Fintech enterprises as a new way to interact, manage, invest and getting financing from the system. Overall, the most significant feature assessed by customers is the simplicity of offering financial services via the Internet. Consequently, there is a fast growth of online banks, insurance providers and brokers. Especially, clients appreciate the classic and simple products such as current accounts, savings accounts and term deposits; therefore, there is an increasing in the number of online management platforms. Apart from the often-better terms, many customers appreciate the convenience (24/7 availability and speed), simplicity and comparability, which lead them to deal with contracts online. Customers have found the strong idea of demanding finance on the internet thanks to mobile phone, online platforms and cloud computing. Fintech companies have shown that people are more comfortable managing their own money and business online. People are each time less willing of bureaucracy of certain traditional financial services and prefer to manage and being in control of their money without needing approval from anyone wherever and whenever they want.

We cannot forget the great performance made by Fintech platforms financing small and medium enterprises worldwide. Fintech platforms have found an appetite among SMEs starved of credit from banks and which have used the internet to find new sources of lending. Indeed, the ability of online platforms to channel resources to SMEs has been noticed by European institutions. But they have not just looking for a financing plan; they are trying to get some polyvalence professional profile to get into their own business. In general, SMEs and large companies are demanding a hybrid professional profile, who combines technical knowledge, knows the products of the market and is an expert in data analysis in order to be into a competitive market is growing nowadays.

In addition, according to some author's opinions, the current situation will be continuing growing and changing the financial field over the next few years. Banks and enterprises will evolve their models to differentiate themselves, maintaining revenue growth and achieving economic sustainability in the short-term. In the long-term, banks will need to consider how they will expand their franchises to develop a service ecosystem around their customers. They need to challenge their own business models, potentially cannibalizing short- term revenue in order to be become more relevant to their customers and access longer-term, but larger, revenue pools. Banks will also need to make higher risk investments in innovation and not wait until the return on these operations because they must to be re-invested to make their business grow even more.

Finally, is vital to remark that companies such Apple, Facebook, Alibaba, or Amazon are just few examples of digital impact in our society nowadays not just as social media platforms achieving the majority of millennials customers, but also as potential a potential threat to financial business. So, existing market-dominant digital ecosystems, financial services are being challenged by even newer and more innovative services. As a consequence, customers are demanding even more modern and contemporary products and services to supply their constantly growing needs.

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