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FINTECHS & THE BANKING INDUSTRY:
DISRUPTION OR EVOLUTION?

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Thesis presented to Escola de Administração de
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as a requirement to obtain the title of Master in
International Management (MPGI).

Knowledge Field: Gestão e Competitividade em Empresas Globais

Advisor: Prof. Luis Henrique Pereira

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ABSTRACT

This master dissertation aimed to understand the rise of the fintechs in the banking industry under an academic basis with a special focus on the Spanish market. The intention was to discuss if fintechs play a disruptive force or if they are driving the industry evolution.

Even though the linkage of fintechs and the banking industry has a long history, dating back to 1886, they emerged strongly since the financial crisis of 2008. After this turning point, many start-ups pop up, launching value propositions that combined technology and innovation (Arner, Barberis & Buckley, 2015).

In this sense, to address the problem in hand, five theories were applied to assist in the understanding of the current situation of the banking sector. The objective was to find an academic explanation for the phenomenon of fintechs and their impact on the industry. Each one of these theories generated a proposition assessed by an exploratory qualitative research carried out for the purpose of this master dissertation.

Therefore, primary and secondary data were collected. The primary data was gathered blending distinct research methods such as personal interview, semi-structured interviews and online survey and questionnaire. Hence, a triangulation process was adopted in order to obtain multiple insights from the stakeholders involved: customers, fintechs and banking professionals.

According to the definition of disruption provided by the theory of disruptive innovation (Christensen) and the concept of evolution provided by the literature of industry evolution (Klepper), the findings suggest that fintechs are not disruptors. They seem to be driving the evolution of the banking industry, institutionalizing new manners of doing business, due to their combination of two powerful forces capable of altering the dynamics of an industry and regenerate their lifecycles: innovation and technology.

KEYWORDS

Banking industry, technologies, innovation, fintechs, Spain, evolution, institutional, disruption.

RESUMO

Esta dissertação de mestrado tinha como propósito entender a emergência das fintechs no setor bancário, principalmente no mercado espanhol, com base em fundamentos acadêmicos. A intenção era discutir se as fintechs promovem a disrupção ou a evolução da indústria.

Embora a ligação entre as fintechs e o setor bancário tenha uma longa história, desde 1886, as fintechs emergiram fortemente desde a crise financeira de 2008. Essa data marca um momento de virada em que muitas start-ups surgiram, introduzindo propostas de valor que combinam tecnologia e inovação (Arner, Barberis & Buckley, 2015).

Nesse sentido, para abordar o problema em questão, cinco teorias foram aplicadas para auxiliar na compreensão da situação atual do setor bancário. O objetivo foi encontrar uma explicação acadêmica para o fenômeno *'fintech'* e seu impacto na indústria. Cada uma dessas teorias gerou uma proposição avaliada por uma pesquisa qualitativa exploratória realizada para fins desta dissertação.

Dados primários e secundários foram utilizados. Os dados primários foram coletados combinando distintos métodos de pesquisa, tais como entrevistas pessoais, entrevistas semi-estruturadas e pesquisa on-line e questionário. Assim, foi adotado um processo de triangulação para obter múltiplas percepções dos stakeholders envolvidos: clientes, fintechs e profissionais bancários.

Conforme definição de disrupção fornecida pela teoria de inovação disruptiva (Christensen) e o conceito de evolução fornecido pela literatura de evolução da indústria (Klepper), os resultados sugerem que as fintechs não são disruptoras. Elas parecem estar conduzindo a evolução do setor bancário, institucionalizando novas maneiras de fazer negócios, devido à combinação de duas poderosas forças capazes de alterar a dinâmica de uma indústria e regenerar seus ciclos de vida: inovação e tecnologia.

PALAVRAS CHAVE

Banco, fintech, tecnologias, inovação, fintechs, Espanha, evolução, institucional, disrupção.

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1. INTRODUCTION

Innovation has strong ties with competitiveness and productivity, contributing to the overall economic development. It ranges from incremental to radical breakthrough and can be undertaken in any stage of the business cycle: product, process development and business model\commercialization (Atkinson, 2013).

Disruptive innovation is powerful enough to change the dynamic of an industry, imposing a different way of competing in an existing business. It also creates ways to adjust dynamically to compensate for imbalances in competitiveness (Porter & Heppelman, 2014).

Across industries, new business models have been arising due to digitalization and technology evolution. They come up with low cost operations and connected-smart products and services that transcend traditional boundaries and disrupt value chains (Porter & Heppelman, 2014).

In the banking sector, fintechs have been finding room to enter the market through the introduction of innovative technologies and business models. Since 2008, fintechs emerged, serving customers directly. Banks are now re-thinking their way of doing business to face this new competitive landscape (KPMG, 2017).

This dissertation aimed at understanding the rise of the fintechs with special focus on the Spanish banking sector. The objective was to analyze the emergence of the fintechs under a theoretical basis, taking into account reputable theories to assess the banks behavior, their environment and reach a conclusion on the following questions:

- Are fintechs disrupting the banking sector? or
- Are fintechs driving the evolution of the banking industry?

Several publications, articles and reports can be found about fintechs, since they are a hot topic on the business agenda. However, one can find few master dissertations, academic researches or analyses supported by a theoretical basis. As a result, this study is a relevant contribution not only for the academy but also for the general management of both financial institutions and fintechs.

To address the problem in hand, the historical perspective of both the banking industry and fintechs were considered in order to understand their history, evolutionary processes, main drivers and the changes. This historical analysis allowed a better understanding of the current context and helped to grasp some insights.

This dissertation took into account five theories to support its arguments from an academic point of view. From the banks side, the Institutional Theory and the Resource-Based-View were combined to integrate both the internal and external perspectives. The goal was to find an explanation for the phenomenon of fintechs based on the banks behavior.

From the fintech side, the Disruptive Innovation and Institutional Innovation theories were used to understand which one of them could better interpret the phenomenon of fintechs and their impact on the industry. Lastly, the Industry Evolution literature shed a light on the industries lifecycles, forces and how fintechs could relate to them.

Each one of these theories generated a proposition that were assessed by this master dissertation through a qualitative exploratory research conducted in the Spanish market. Distinct research methods were blended in order to obtain a holistic understanding of the banking scenario, assessing the opinions and perceptions of customers, banking and fintech professionals.

2. THEORETICAL BASIS

This chapter describes the main theories used to understand both the organizational and the innovation dimensions. The goal was to understand the main rationale of the theories chosen and apply to the context of this master dissertation.

Even though theories have limitations and gaps, they provide a logical conceptual framework that had been subject to extensive validation methods such as synthesis, hypothesis and tests among others (Sridhar, 2014). Therefore, they provide valuable inputs to help interpreting an organization, its actions under a broader context and the fintech phenomenon.

On one hand, the institutional theory explains the homogenization within a specific field, emphasizing the role of external forces in shaping organizational behavior. In the seek of legitimacy and conformity, actors become resistant to change and innovation (DiMaggio & Powell, 1983).

On the other hand, the resource-based-view theory acknowledges the internal resources as a source of competitive advantage. The theory argues that companies with abundant resources are more prone to innovate and, thus, become more competitive through differentiation (Barney, 1986).

Institutional theory explains homogenization within a specific field while resource-based-view theory explains the heterogeneity. Combined, both theories provide a broader perspective of a company, balancing the external and internal perspectives. This theoretical background was very useful to understand the banks and financial institutions behavior and their attitude towards innovation (DiMaggio & Powell, 1983).

The institutional environment impacts directly into the company's strategy, especially in the banking industry in which regulation and society play relevant legitimization roles. In contrast, companies can also respond to societal expectation by deploying its resources to gain comparative advantage (DiMaggio & Powell, 1983).

The chapter also discusses innovations theories. The objective was to find a formal explanation to the phenomenon of fintechs, its causes and impact on the market. According to the institutional innovation theory, there is an opportunity to come up with innovation when social

beliefs, cultural nuances or environment change. Once framed in terms of familiar elements, innovation can gain legitimization, evolve and flourish within a specific field (Raffaelli and Glynn, 2013).

The disruptive innovation theory, however, shed a light on disruption process and explains what should be considered a disruptive innovation. Unfortunately, the term is wrongly applied to any market transformation. Indeed, disruptive innovation is a process through which entrants that initially served overlooked markets move up to target mainstream customers, challenging incumbents (Christensen, Raynor and McDonald, 2015).

Then, industry evolution assisted in the understanding of the industry lifecycles, describing the main stages and characteristics. The literature emphasizes the ability of some forces to regenerate lifecycles, altering the dynamics and environments of the industries (Gort & Klepper, 1982 and Li, Li, Zhao & Wang, 2016).

2.1 Institutional Theory

The institutional theory was firstly formulated by DiMaggio & Powell in 1983. It provided a framework for analyzing the organizational phenomena and aimed at explaining the homogeneity, stability and persistence within organizational fields. Over the years, several scholars produced papers discussing and evolving the theory.

The theory is based on the assumption that organizations are approval-seekers and act to gain and protect their legitimacy. Over the concern of legitimacy, organizations tend to conform to societal expectations in order to ensure their legitimate status. In the institutional environment, legitimacy is key to ensure organizational success and survival (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1987).

The theory argues external forces exert pressure on companies for conformity. A variety of these external forces suggest how organizations should behave, leading them become more alike and adopt similar strategies, structures and processes. For example, they adopt similar terminologies, job title and roles (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1987).

Basically, companies tend to replicate the characteristics of the market leader within their particular market or niche and follow the current business context in order to gain legitimacy. When companies operate within current guidelines and accepted practices, external agents regard them as legitimate (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1987).

According to DiMaggio and Powell (1983), these external expectations and pressures push companies toward **isomorphism** which is the phenomenon of companies from the same field being so alike and adopt similar strategies and processes. DiMaggio and Powell (1983) describe three different types of isomorphism that leads to similarity of organizations within a given field: coercive, mimetic, and normative.

The coercive isomorphism arises from the government and regulatory agencies. The regulatory context forces companies to comply with specific standards that leads to homogenization (DiMaggio & Powell, 1983).

The mimetic isomorphism arises from the tendency of less prestigious organizations to follow and imitate the market leader of their field. The market leader paves the way and creates a set of societal expectations that imposes a specific competitive dynamic within the market (DiMaggio & Powell, 1983).

Finally, the normative isomorphism arises from the development of professional groups and associations that promote the constant exchange of best practices, information and talents among the players of a given field. This professionalization also encourages the similarity of the institutional activity (DiMaggio & Powell, 1983).

The authors suggest that the rate of institutional isomorphism increases when a) firms are highly dependent on the institutional environment, b) when they share high uncertainty or ambiguous goals and c) when they rely too much on professionals (DiMaggio & Powell, 1983).

The theory states that the institutional environment strongly influences the organization, shaping their behavior towards homogeneity. In this sense, external forces are the primary explanation for the actor's behavior. It focuses on the role of culture and normative bounds of rational decision-making. However, the economic value is not evaluated since the adoption of formal structures and given practices can reduce efficiency and the company's competitive position (Meyer and Rowan, 1977).

Under the perspective of institutional theory, organizations have low incentives to innovate, since they can reduce their legitimate status. By moving beyond normal expectations, external agents might consider them too outside the mainstream and may hinder their environmental position (Deephouse, 1996).

However, the new vision of this theory argues that institutions with sufficient resources can afford the risk to move beyond the normal expectations, introducing innovative practices. Due to their leadership status within their field, they are regarded as legitimate to innovate (Sherer & Lee, 2002).

These recent studies have developed two distinct lines of interpretation of the institutional theory, according to the research approach: realist or social constructivism. The realist researchers tend to see the world as stable and try to find an explanation when they face a change. In contrast, social constructionist researches tend to see the world as in constant change and try to find an explanation when they confront stability (Donsbach, 2008).

Additionally, two new directions have been proposed for the development of the institutional theory, giving room for both theory and empirical research. These directions seek to complement the analysis of the traditional institutional theory, providing a more comprehensive rationale (Donsbach, 2008).

Firstly, it is further study on how actors could intentionally influence their institutional context. This line of research has close ties with *institutional entrepreneurship* and has attracted attention in the recent years. Certainly, companies that manage to alter the institutional context would gain an important source of power and superiority over the others (Donsbach, 2008).

Secondly, future studies could focus on the development of endogenous explanations for institutional phenomena. The institutional behavior is mainly explained by exogenous forces, lacking a deeper analysis of the internal dynamics of institutions and their closed causal loops (Donsbach, 2008).

2.2 Resourced-Based View Theory

The resourced-based view (RBV) theory has emerged in the mid 1980's as one of the most important theories of strategic management. The most famous works were published by Barney (1986), Rumelt (1984) and Wernerfelt (1984). The theory provides a theoretical framework for the development of competitive advantage by supporting the internal view of the company as a source of competitive advantage and superior performance.

The theory is based on the assumption that company's internal resources can be a source of competitive advantage given that resources and capabilities are heterogeneously distributed across companies. Firms attain a sustainable competitive advantage, outperforming the competition, when they are able to bundle resources and capabilities that are unique, scarce and valuable (Barney, 1991).

Basically, the theory is grounded in two main assumptions. The first assumption is that companies possess skills, capabilities and other resources that are different from one another. These different bundles of resources enable them to implement distinct strategies, outperforming their competitors. The second assumption is that resources are relatively immobile, at least in the short term. This means that companies cannot easily replicate the same strategies, granting sustainable competitive advantages (Barney, 1991).

Consequently, the internal resources and capabilities of a company define its competitive position. The resources and capabilities could be tangible and intangible assets such as people, property and capital and intangible such as skills, knowledge, know how, reputation among others. Usually, the intangible resources are the main source of sustainable competitive advantage due to its nature, being hard to replicate or imitate (Barney, Wright & Ketchen, 2001).

Resources not only position a barrier but also create an advantage over the competitors, enabling a firm to enjoy higher returns. A resource position allows a company to raise an entry barrier that is hard to replicate and difficult to catch up (Wernerfelt, 1984).

In this context, availability of resources provides a cushion that allows organizations to adapt to internal and external pressures. Therefore, companies with abundant resources are more flexible and adaptable since they respond to market demands faster and more efficiently than companies with limited resources (Wernerfelt, 1984).

Barney (1991) argues that companies with ample resources can invest in sophisticated systems that allows them to understand the external environment and respond faster and strategically,

affording new actions. In contrast, companies with low resources face reduced capacity of change.

Resources help companies to buffer uncertainty and encourages them to take risky decisions in response to the external environment since they allow them to experiment new ideas. Therefore, organizations with abundant resources are more likely to innovate (Cyert and March, 1963).

Additionally, innovation can be an important source of competitive advantage since they are knowledge-based, difficult to develop and imitate. It can be a path towards differentiation and uniqueness (Cyert and March, 1963).

Barney (2001) evolved the RBV theory by developing a framework that would lead to sustained competitive advantage. The framework consists of a set of questions that verifies if the resource is valuable, rare, costly to imitate and non-substitutable. His main argument was based on the fact that even though resources are heterogeneous and immobile, the firm should be able to sustain them.

Later, another improvement was made, resulting in the current and well-known VRIO framework. A new question was included to ensure the firm is organized to exploit the resource and capture value from it. As expected, a resource by itself is not able to confer any advantage if a company is not able to fully explore and attain value (Kraaijenbrink, Spender & Groen, 2010).

The RBV has been widely diffused among the international business literature, indicating the importance of knowledge and experience as a valuable, unique, and hard-to-imitate resource in the global scenario. The theory helped the international business's research to develop a rigorous framework able to connect several topics and agents. Peng (2001) showed that the theory has been applied in areas of interest such as: multinational management, strategic alliances, market entries and international entrepreneurship.

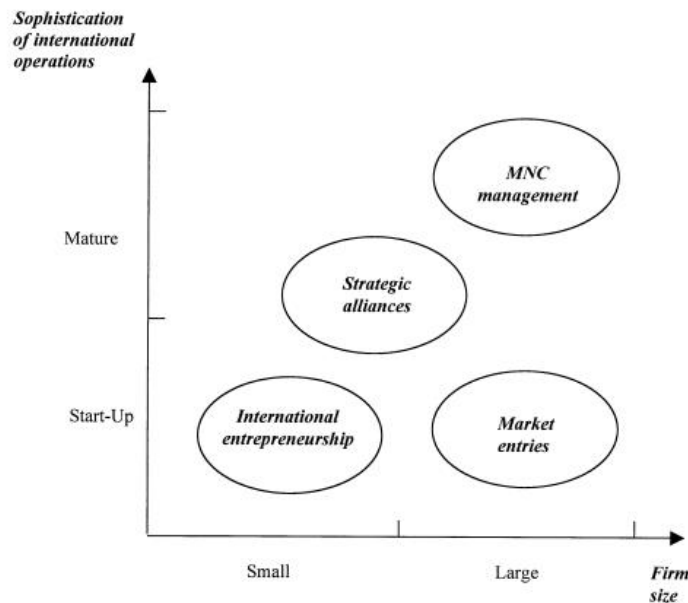


Figure 1: The Resource-Based View in International Business Research: An Organizing Framework.
Source: Peng, 2001.

However, recently, eight critiques have affected the theory, exposing its weakness among reputable scholars. This highlighted the need of future developments to address the main issues. Kraaijenbrink, Spender & Groen (2010) summarized the critiques in 3 main future paths of work:

- **Demarcating and defining resources:** a clear demarcation of what is considered a resource and how it differs from capabilities. The enhancement includes a full definition of the concept of resource, what it is resource, its main characteristics and form of classification, for example.
- **Subjective and firm-specific notion of resource value:** evolve the value of a resource as to incorporate insights from legal, institutional, human and property rights. Investigate social mechanisms and assessment on how to create and capture value. This suggestion is based on the fact that a resource can be a source of multiple values that differ between actors. For instance, one firm can have the right to explore a resource while the other has the right to obtain income from it.
- **The RBV (resourced based view) as a Theory of SCA (sustained competitive advantage):** develop a resourced-based explanation for competitive advantage and a proposition that explains the relation between specific types of resources and a firm's competitive advantage.

2.3 Institutional Innovation Theory

The institutional innovation derives from the institutional theory, sharing similar assumptions. Generally, societal forces drive isomorphism among players of a specific field in the seek of legitimacy. In this context, institutions are relatively resistant to change and innovation.

However, the institutional innovation theory argues that institutions do change at different degrees, according to the circumstances. Indeed, many studies have been carried out to understand features that can facilitate innovation in an institutional context. Scholars explain three main processes through which institutional change occurs (Raffaelli and Glynn, 2013).

The first explanation focuses on the external forces that encourage institutional change. The second explanation is based on endogenous factors, giving room for the rise of institutional entrepreneurship. Lastly, the third explanation relies on the institutional innovation.

According to Raffaelli and Glynn (2013), institutional innovation occurs when existing institutions adapt towards new opportunities, respond to changed environments or meet new cultural nuances. It ranges from incremental innovations (change current institutions) to more disruptive innovations (creation of new institutions).

They discuss that institutional innovation is challenging because it creates a tension between institutional persistence and innovative change. From the organizational perspective, any innovation triggers a disruption in the established status quo, shifting arrangements, power structures, processes and practices (Raffaelli & Glynn, 2013).

Therefore, any change could potentially trigger institutional innovation. Scott (1987) highlights four main variants that can trigger institutional change, and therefore, institutional innovation: a) normative; b) social construction; c) cultural embedded and d) bundling of logics and practices.

From the normative perspective, norms values and beliefs change over time according to societal sentiments. Institutions develop innovative policies and programs to comply with the new social scenario. Therefore, from the normative perspective, institutional innovations should be aligned with prevailing norms (Scott, 1987).

From a constructionism perspective, institutions are essentially human creation. Its social aspect creates and orders the cognitive, normative and behavioral patterns. Isomorphic forces change according to the cultural, economic and environmental shifts, triggering new conformity standards and giving room for institutional innovation. Usually, institutional innovation is familiar with the understanding of key social actors, making them more legitimate and successful (Scott, 1987).

From the cultural embedded perspective, culture can enable innovation by making them more useful. In this case, institutional innovation appropriates cultural elements from a broader context of social trends, facilitating its interpretation, adoption and implementation (Scott, 1987).

From the bundling of logic and practice perspective, each institution can be considered a social sphere with its own set of beliefs and logics. Glynn (2013) argue that intuitional logics provide a frame of reference and guide action, regardless of its type (market, social, organizational, etc). Therefore, they can be a source of change, moving away from isomorphism and persistence.

Raffaelli and Glynn (2013) define institutional innovation as “*novel, useful and legitimate change that disrupt, to varying degrees, the cognitive, normative or regulative mainstays of an organizational field*” (p.2). In this context, institutional innovation is characterized by three main elements: novelty, usefulness and legitimacy.

Legitimacy is paramount for intuitional innovation. It involves the acceptance and endorsement of change from the relevant actors. To ensure legitimacy, innovation is framed in terms of familiar and institutionalized beliefs and practice to bridge the gap between the old and the new. It is a dynamic process in which the change is endorsed either by aligning with some form of conformity or developing new rules (Raffaelli and Glynn, 2013).

Legitimacy appears to hinder the potential of novelty. As expected, being too new and unfamiliar hinders legitimacy. Novelty, however, is measured from its distinctiveness from the institutional point of view. In other words, how different it is in that specific organizational field (Raffaelli and Glynn, 2013).

Finally, useful innovations are those broadly diffused and adopted in companies of the same field, becoming a best practice. It happens when the innovation become widely accepted and

endorsed, institutionalizing a new norm that other players copy to ensure legitimacy (Raffaelli and Glynn, 2013).

2.4 Disruptive Innovation Theory

The theory of disruptive innovation was created by Harvard professor Clayton M. Christensen in his research about the disk drive industry. He became one of the experts in innovation and growth, writing books such as *The Innovator's Dilemma* (1997) that helps to explain the failure of well-established companies.

The theory argues that disruptive entrants start targeting an overlooked segment, delivering products and/or services at lower prices. Over time, as they improve their service or technology, they move upmarket, serving mainstream customers. When those mainstream customers largely accept and consume the entrant's offering, the disruption takes place. It mainly happens because incumbents were too concerned on developing sustaining innovations to retain most demanding and profitable customers. They just realize the threat of the entrants too late (Christensen, Raynor & McDonald, 2015).

According to Christensen, Raynor and McDonald (2015), disruptive innovations have two main characteristics. Firstly, they originate in low-end market or untap new markets (turn non-consumers into consumers). In both cases, incumbents overlook these segments because they are too focused on traditional customers. They are too busy working on a series of incremental innovations to sell more products to their most profitable customers. Secondly, disruptive innovations target mainstream customers after quality reach specific standard level. Usually, disruptive innovations are considered inferior but their quality rises over time to target most demanding customers at lower price.

The authors emphasize that disruption is a trajectory. Most disruptive innovations evolve over time, improving their products and/or services and gaining the market little by little. This evolutionary perspective helps to explain why incumbents, initially, do not consider them as a threat. They usually start with inferior products and/or services, not appealing to incumbent's traditional customers, thus, avoiding direct competition (Christensen, Raynor & McDonald, 2015).

In other words, incumbents are influenced by their institutional environment and fail to realize the potential opportunities that can arise from low end and new-market footholds. Therefore, they also fail to realize the threat of these new entrants, giving room for their evolution and maturity. This way, disrupters can survive and evolve to create new ways of serving customers, simpler, cheaper and more conveniently (Christensen, Raynor & McDonald, 2015).

After extensive studies, Christensen and Raynor identified four key elements of the theory. These elements are detailed described in their book *The Innovator's Solution* (2013). King and Baatartogtokh (2015) synthesized the four elements as:

- **Incumbents work along a innovation trajectory:** traditional players are too concentrated on maintaining their current customer base by systematically improving their products and services
- **Sustaining innovation overshoot customer needs:** by making their products and services better, they tend to disregard the needs of low-end markets.
- **Incumbents have the capacity to respond but fail to exploit it:** with their processes designed to support sustaining innovation, big players fail to combat potential disruptors, being unable to respond. They lack modes of interaction and decision-making, neglecting the importance of the threat
- **Incumbents are displaced as a result of the disruption:** initially, disruptors hold an inferior value proposition, but they are more affordable and better in terms of convenience and simplicity. When they manage to improve their service and reach the mainstream customers, posing a real threat to incumbents.

The figure 2 summarizes the whole process. As incumbents consistently improves the quality of their products and services to satisfy high end market, they disregard the needs of the low end and mainstream customers. This opens an opportunity for new entrants to target the lower segments. Over time, entrants improve their service, reaching the mainstream customers.



Figure 2: The disruption innovation model.

Source: What is disruptive innovation, 2015 (Christensen, Raynor and McDonald).

Under the perspective of the disruptive innovation theory, disruption takes place when the conditions and elements described above are met. In this sense, many people use the term “disruptive innovation” wrongly with reference to any situation that shakes up the status quo of the market (Christensen, Raynor & McDonald, 2015).

For example, the authors defend that Uber, for example, is usually described as disruptive equivocally. Although Uber certainly transformed the taxi industry, it targeted the traditional taxi’s consumers by offering a superior service, more convenient and relatively cheaper. Therefore, based on the theory, Uber is not considered as disruptive innovation (Christensen, Raynor & McDonald, 2015).

Disruption does not occur because incumbents fail to innovate, but because they are too focused on enhancing their products for current customers. They are investing in sustaining innovation. Nonetheless, disruptive innovations are those that make products and services more accessible and affordable, reaching new customer segments (Christensen, Raynor & McDonald, 2015).

To conclude, it is important to reinforce that the concept of disruption used in this master dissertation followed the definition of the disruptive innovation theory created by Christensen just described above. Regardless of its limitations and critics, the theory provides a conceptual

framework that is useful for the purpose of this paper and that have been subject to extensive research and validation.

2.5 Industry Evolution

The study of industry evolution was opened up by Steven Klepper in the 80s. His first paper applied the concept of “*product lifecycle*” to the notion of endogenous evolution of industries. The paper inspired an entire literature field related to the industry lifecycle patterns, bringing a Schumpeterian dynamic to explain the heterogeneity among firms.

Industry evolution provides insights into the interdependencies among industry change, firm’s strategic choice and competitive advantage. Its modern field defends that industries evolve, typically going through 4 stages: introduction, growth, maturity and decline, as shown in figure 3 (Gort & Klepper, 1982).

- **Stage 1 (introduction):** it is the first stage of the industry in which one or more innovations are commercialized by the first producer.
- **Stage 2 (growth):** it is characterized by the increase in the number of producers that goes along with a fall in the price due to standardization and mass production techniques.
- **Stages 3 (maturity):** it is considered the maturity stage. The industry goes through a “*shake out*” process during which the number of producers decrease and then stay constant.
- **Stage 4 (decline):** it is marked by price wars and overcapacity due to a negative growth market. The product becomes commoditized, targeting residual customers.

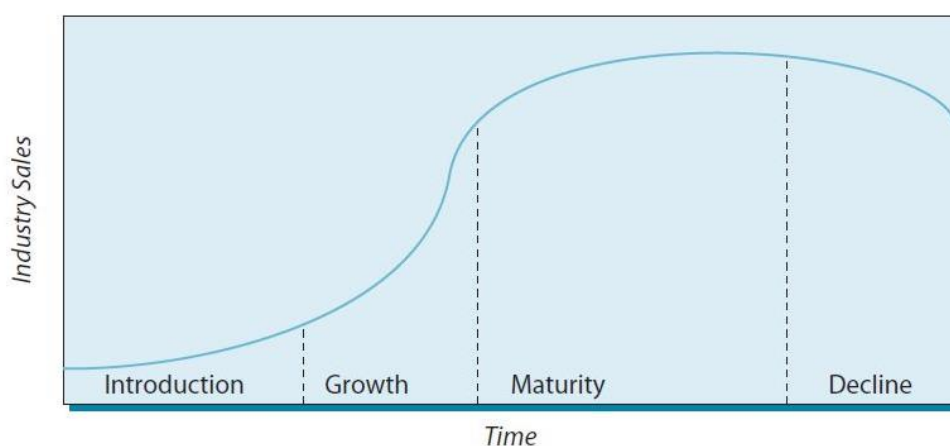


Figure 3: Industry Life Cycle.
Source: Gort & Klepper (1982).

The overall argument of the industry lifecycle is that entrants have limited capacity. Thus, companies with more resources can imitate their peer in the next stages, resulting that only the most efficient firms survive in the long run which is why the number of entrants decline and the industry stay in equilibrium (Klepper & Graddy, 1990).

Gort & Klepper (1982) found out that the number of patents rise over the product life-cycle while innovations (especially the major ones) exhibit an opposite pattern. Agarwal & Shah (2013) explained that the uncertainty and small size of the market might lead innovators to underestimate the returns from establishing property rights through patents. In contrast, in the other stages, patenting becomes more strategic due to increased marginal returns and heavier investments.

The literature also defends that the returns from R&D are proportional to firm sales which means that larger firms have more incentives to invest in R&D than smaller firms. This theory was later evolved, establishing a conceptual distinction between product and process innovation. Product innovation is seen as the development of new characteristics added to an existing product while process innovation focuses on reducing the average cost of production (Cohen & Klepper, 1992).

According to Klepper (1996), heterogeneity across firms is driven by differences in R&D productivity, differences in timing of entry into the industry, entrant's prior experience and innovation capabilities. He concludes that the earlier and the more experienced, higher are the chances of firm to survive and succeed.

These findings were later investigated with the concept of employee entrepreneurship. The idea is that employees leave their firm after being frustrated when incumbents reject their innovation or idea to explore a submarket. Then, they open up their own start-ups, starting a spin off process. They evidenced that many high-tech industries were founded by talented individuals that left their formal employers and that their previous experience were important to ensure a superior performance of their companies (Klepper & Sleeper, 2005).

Recently, many researches have been studying the relationship between technological progress and the industry evolution from different perspectives. In general, they defend that technology progress is the main driving force behind the industry evolution, being considered a catalyst for change (Li, Li, Zhao & Wang, 2016).

In short words, the industry evolution theorizes that new industries arisen due to innovations and technological developments. The evolution follows a lifecycle pattern, evolving across four stages from birth to decline. Some industries can experiment a life cycle regeneration, going back to previous stages due to a change in its dynamics (Li, Li, Zhao & Wang, 2016).

Lastly, it is important to reinforce that the concept of evolution used in this master dissertation followed the concepts provided by the industry evolution literature just described above. Regardless of its limitations and critics, it provides a conceptual framework that is useful for the purpose of this paper and that have been subject to extensive research and validation.

3. THE BANKING INDUSTRY

This chapter aims to analyze the banking industry under a historical point of view and the role played by technology. The objective is to understand the industry and its main challenges over a historical perspective.

The chapter starts by briefly describing the history of the banking industry. Technology has always been present in banking, enabling the industry to perform its core function as a financial intermediary. Throughout the history, technological developments have inaugurated distinct eras, varying from efficiency to digitalization and risk management. It helped banks to overcome challenges and address the prevailing internal and external conditions (Samakovitis, 2012).

The chapter continued describing the Spanish banking industry and its main characteristics. The sector has undergone several changes in the past years in order to meet European and international regulatory requirements. Specific features distinguish the Spanish banking sector from other European countries such as efficiency and branches network (Maudos & Vives, 2016).

However, Spanish banks also face common challenges that characterize the international banking sector such as strong regulatory demand, loss of trust, reduced margins, competition arisen by new entrants, digitalization and changed social environment (Maudos & Vives, 2016).

The findings of these chapter were key to elaborate the propositions described in the Chapter 5 (Methodology) since it helped to understand that, over the years, technology produced a set of transformations in the banking sector. This could suggest that the current changes might be part of its evolution.

3.1 The history of the industry

The banking industry is the cornerstone of the modern capital economy, contributing to economic development and improvement of living standards. It plays an essential role as the

intermediary of the financial system, facilitating transactions between savers and borrowers. Banks also allow the settlement of transactions, provide liquidity to the system and manage risk (Bollard, 2011).

The banking industry offers a broad portfolio, ranging from standardized to complex and sophisticated services. It also encompasses a wide range of services and technological providers and suppliers that remain in the *back-end* of the banking operations (Bollard, 2011).

From a historical perspective, banks have been around since the rise of the first currencies. Empires needed an easier way to pay for goods and services and tax their people and, thus, coins became a tradable asset. The Roman Empire created the predecessor of the modern banking system by legally formalizing the relationship between creditor and debtor (Armstrong, 2017).

Little by little, banks strengthen their role in the society. During the European monarchism era, for example, banks financed royal extravagances, costly wars and armies. By that time, however, banks were an instrument of the government (either empires or monarchies), serving to their objectives (Armstrong, 2017).

In 1776, Adam Smith developed the *invisible hand theory*, defending a limited influence of the Government on the banking sector and the economy as whole. This paved the way towards the capitalism, free market and competition, enhancing banks' positioning. In the late 1800's, many merchant banks emerged to finance the international trade. They developed more sophisticated instruments to raise capital related to corporate finance (Samakovitis, 2012)

Technology has always been important in the sector given its service nature, being dependent on accuracy, consistency and reliability. Over time, banks developed and incorporated the most recent technologies to maximize their efficiency as financial intermediators, collecting, processing and disseminating data. Indeed, Samakovitis (2012) argues that technology has had a pertinent role in the history of the sector, producing noticeable impacts that shaped the industry.

In 1867, Edward A. Calahan invented what could be considered the first application of technology to financial services: a printing telegraph for stock prices. A few years later, Thomas Edison developed an improved stock ticker (Pretz, 2017).

The introduction of tabulating machines in the 1920s inaugurated a new era of banking. They were the first application of system-based technology and significantly improved the accounting function and data processing. They also reduced costs and challenged labor force, since a large number of employees used to perform such task (Samakovitis, 2012).

Between the late 1940s and 1960s, the advances in electronic technologies launched mechanical systems and the computer in 1948. Launched by IBM, it was called the *604 Electronic Calculating Punch* and could quickly perform addition, subtraction, multiplication, and division (Pretz, 2017).

Initially, the computer technology was mainly applied to back-office in order to reduce operating costs, speed-up operations and streamline departments. This period was followed by the introduction of EDP (Electronic Data Processing systems) and DBMS (Database Management Systems) which widely diffused among the players of the industry (Samakovitis, 2012).

Meanwhile, Barclays (English bank) launched two innovative solutions that changed the sector's dynamics: the first credit card in 1966 and the ATM (automated teller machine) in 1967. Paul Volcker (former chairman of the US Federal Reserve between 1979-1987) said in 2009 that ATM was one of the most important financial innovations because they minimized the need of the branch's network while offered convenience to customers (Connelly, 2016).

Following the chronology, from the late 1960s until the 1980s, hardware and software technologies spanned over the banking sector and banks became the key customers of the computing industry. In 1982, for example, Bloomberg installed its first terminal at Merrill Lynch. It allowed real-time monitoring of the financial market and placements on an electronic trading platform (Pretz, 2017).

The personal computer, developments in telecommunication and programing inaugurated the "*information revolution in financial services*" in which new demands emerged related to security and international payments (Samakovitis, 2012).

With the system fully integrated and processes standardized, technology improvements shifted from cost-efficiency to enhanced product offering and services. By this time, banks were seeking to gain competitive advantage through differentiation. They invested on quality, security and agility in processing financial transactions (Samakovitis, 2012).

The following stream of technology of banking sector focused on developing alternative channels. In this context, call centers, telephone banking system and, finally, online banking introduced a new way of service provision and disintermediated the branch-based relationship model (Samakovitis, 2012). For instance, in 2000s the online banking became mainstream and enhanced the electronic and online payment and transfer systems (Awosika, 2017).

The most recent stream of technology aims at tackling the main challenges faced by the sector: digitalization and the compliance with the new regulatory environment triggered by the global financial crisis of 2008. Huge investments have been made not only to upgrade infrastructure and digitalize services but also to enhance risk management.

In the era of digitalization, technological developments reduced the entry barriers, giving room for new players to enter in the market. Internationally speaking, the banking sector is currently characterized by the arrival of new competitors.

KPMG (El Nivel de Madurez Digital en España, 2017) classifies the new competitors into two categories: fintechs (to be discussed in the chapter 3) and GAFA (Google, Amazon, Facebook and Apple). The term GAFA refers to technology companies that moved beyond their initial scope, offering financial solutions due to their brand, differentiated digital experiences, resources and technology.

Martin Armstrong argues that the development of the banking system was an integral part in the development and evolution of the human civilization. Its historical perspective shows that technology is inherent to its activity and evolution. Technology shaped the banking industry, altering its nature, characteristics and labor structure. It also significantly increased its capacity to process data, optimize process and introduce new products and channels to better meet customer needs (Samakovitis, 2012).

Roger W Ferguson (Vice-Chairman of the Board of Governors of the US Federal Reserve System) highlighted that banks were among the earliest adopters of automated technology. He stated that the technological revolution in banking began in the 1950s, well before most industries.

This scenario indicate that the banking sector has been transforming itself and changing its business model since its beginning to both gain efficiency and meet external expectations. Therefore, technology has enabled the sector to prosper and flourish by helping the players to

evolve and address the prevailing external conditions (socio-economic, regulatory or political). The figure 4 summarizes the main eras of the banking history and its strong ties with technology.

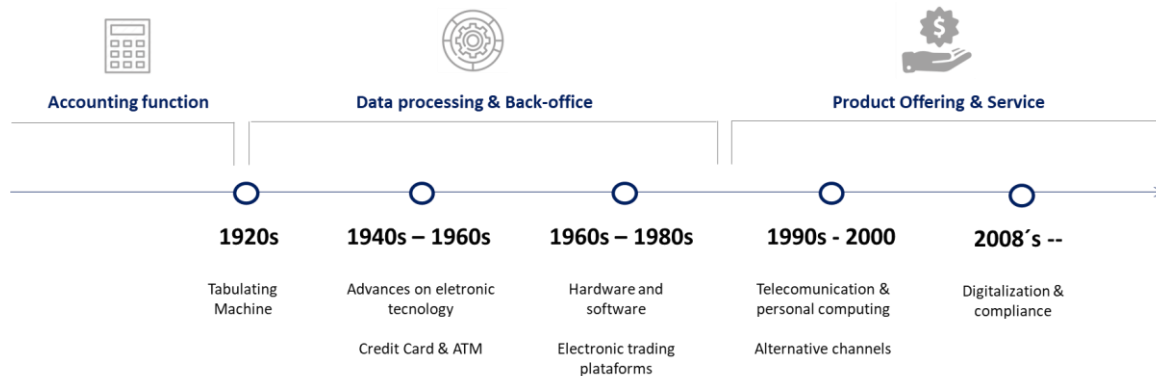


Figure 4: The banking history and the technological developments.
Source: Samakovitis, 2012. Elaborated by the author.

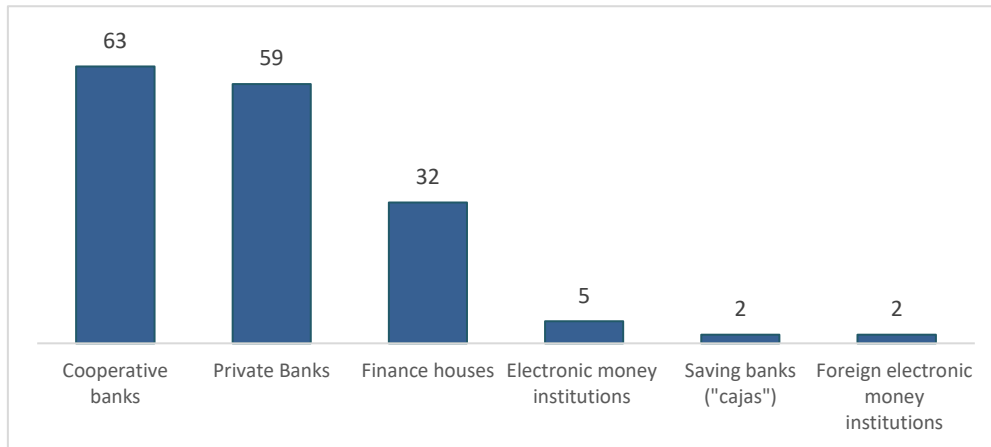
3.2 The industry in Spain

The Spanish banking sector is fully integrated with the international financial market. The country has adopted the European Union (E.U.) directives which shape its legal framework with regards to solvency, credit lending, securities and insurance (Export Gov, 2017).

Domestically speaking, the system is regulated by three main bodies: the Secretary of Treasury and Financial Policy, the Ministry of Economy (through its the Directorate I of International Trade and Investments) and the Bank of Spain (Export Gov, 2017).

The main regulatory actor of the system is the Bank of Spain. It supervises the institutions, centralizes the information and regulates the exchange markets. The Bank of Spain has close ties with the European Central Bank, they are not only systemically integrated but also linked in terms of policies and regulations (Export Gov, 2017).

The current system comprises a set of financial institutions such as national banks, foreign banks, saving banks and credit cooperatives. The graph 1 shows the number of credit entities of the Spanish banking sector as of 2017. The sector also comprises brokers, insurance and reinsurance companies and investment institutions that deal with property assets, marketable securities, investment funds and venture capital funds (Export Gov, 2017).



Graph 1: Number of credit financial institutions in Spain.
Source: Asociación española de banca, 2017. Elaborated by the author.

Due to the financial crisis, the sector has undergone drastic changes since 2010 in order to meet the European Union requirements. Huge efforts have been done to correct the market distortions, regulate lending and strengthen governance. As a consequence of such restructuring, the sector reduced dramatically through merges and acquisitions (Export Gov, 2017).

According to Maudos & Vives (2016), prior to the crisis, the Spanish banking industry was marked by a) an excessive credit growth; b) a high concentration of risk in real estate and construction sector; c) quick rise in the number of branches and bank's employees; d) an excessive reliance on the wholesale financing; and e) weak governance structure over the saving banks (*cajas de ahorro*).

In this context, when the financial crisis popped up in the international arena in 2008, it triggered a severe economic crisis in Spain. It was so intense that the Government had to ask for financial assistance from the European rescue funds. In return, Spain had to implement a set of measures and procedures to correct its imbalances, rescue its financial system and recover its economy (Maudos & Vives 2016).

However, in two years, the sector moved from a position of requesting financial assistance to successfully passing the European Central Bank's stress test, carried in November 2014. The

restructuring process consolidated the sector, reduced the overcapacity of the system, cleaned the balance sheets, diminished the non-performing loans, improved insolvency and liquidity (Maudos & Vives 2016).

Yet, the Spanish banking sector is still challenged by a series of normative requirements. On top of the European policies motivated by the financial rescue, many international agreements also came into play in order to regulate capital and liquidity, preventing future crisis (Maudos & Vives 2016).

Historically speaking, Spain has always had one of the largest network of branches of E.U. Usually, the branches tend to be small, serving local consumers and small businesses. Even though the restructuring has drastically reduced the number of branches, the network is still large compared to other European countries and, especially, in a digitalization scenario. The figure 4 shows the drop in number of both employees and brands in the past years (Maudos & Vives 2016).

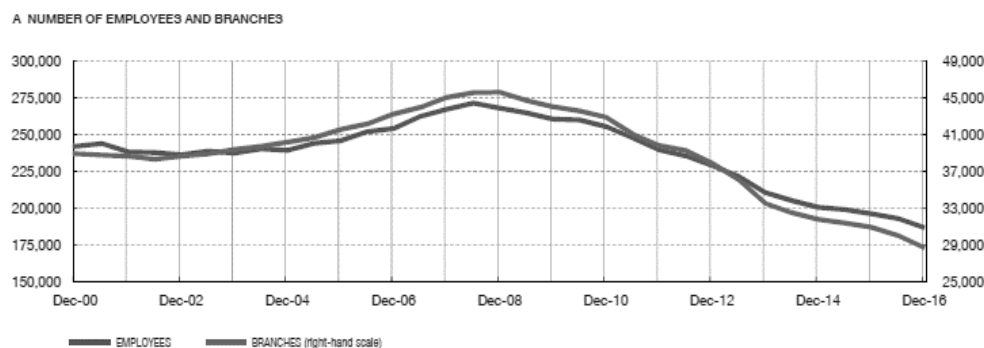


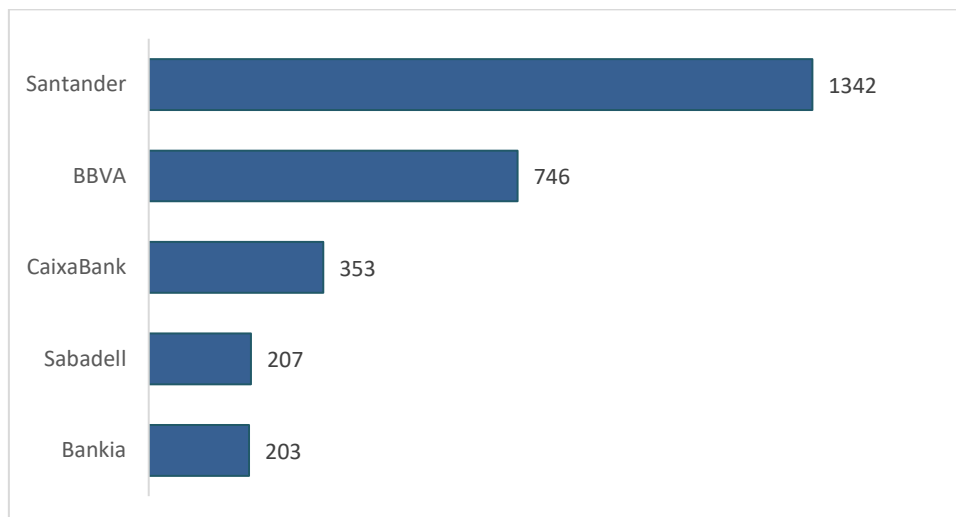
Figure 5: Spanish evolution in the number of employees and branches.
Source: Banco de España and European Central Bank, 2016.

An important characteristic of the Spanish banking sector is its role as a traditional financing intermediary. Banks' balance sheet are predominantly composed by loans and deposit and interest charge is the main source of income, followed by other types of fees and charges related to lending, payment and deposits services (Maudos & Vives, 2016). This means that the industry is very traditional, relying on well-established instruments of intermediation.

Spanish Banks also differentiate themselves from other European banks due to their operational efficiency. Prior and even during the crisis, the cost to income ratio was below the European average due to efforts to reduce operating expenses and costs (Maudos & Vives 2016).

Moreover, the Spanish banking sector stands out in terms of consolidation. The number of players of the sector has continually drop since 2007. Many saving banks (*cajas de ahorro*) faced financial distress, being bought by more solvent players. This process is still ongoing, for example, Santander has acquired Banco Popular in mid-2017 (Asociación Española de Banca, 2016).

Even though the number of banks has drastically fallen, there is not a dominant player, preserving the market competitiveness. According to the Spanish Bank Association (Asociación Española de Banca), 14 groups concentrate 90% of the industry. The graph 2 shows the top 5 leading Spanish banks, as of 2016.



Graph 2: Leading banks in Spain, by total assets (in billion euros).
Source: Statista, 2016. Elaborated by the author.

In tune with the international banking sector, digitalization is also an important theme in Spain. Banks have been changing their operations towards digitalization which is critical to meet customer expectations. They are making efforts to incorporate new technologies and transform their business, becoming faster, more collaborative and efficient (KPMG, 2017).

Historically speaking, Spanish banks have quickly incorporated the most advanced technological development available such as the ATM, computers and payments methods.

Recently, they have considerably rose the investment on technology in order to bridge the gap and compete with the new entrants in the market such as fintechs and GAFA (KPMG, 2017).

La CaixaBank, for instance, ranks among the world's most innovative banks. It was awarded the "*Global Banking Innovation Award*" in 2013 due to its app and online banking. The bank has also won several innovation awards in 2016 due to its digital strategy with regards to mobile and online banking (Caixa Bank, 2016). Santander also stands out in the global scenario as a large player, heavily investing in technology and innovative solutions.

4 FINTECHS

This chapter analyzes the raise of fintechs under a historical point of view, their main characteristics and range of scope. The objective is to understand the way they operate in the market, their business model and type of services provided.

The origin of the term ‘fintech’ traces back to 1866 when it was firstly used by CitiGroup (CitiBank Group, headquartered in the US). The word is a short form of *financial technology*, referring to application of technology to enable financial services. Since then, fintechs have been shaping the banking industry. Literature suggests that they are embedded in the evolution of banking sector (Arner, Barberis & Buckley, 2015).

Today, however, the term fintechs is used to refer to a growing number of startups that cover a wide range of services. They are very diverse in terms of technologies and business models but they share some commonalities such as digitalization, big data, customer centricity and their ability to partner with other companies to gain new capabilities (Caria, 2017).

The chapter ended with a quick analyzis of the Spanish fintech market. Fintechs have been rising and the country has become a reference in Ibero-American and Western Europe (Finnovista, 2017). Among the reasons why fintechs have flourished in Spain, it is possible to mention the weakened reputation of banks and their limited capacity to address the new social trends towards digitalization and convenience. This way, fintechs have found a room to compete by launching easier, more convenient and cheaper financial solutions.

4.1 The history of fintechs

Arner, Barberis & Buckley (2015) argue that the terminology “Fintech” refers to technology applied to financial services, being a short form of *financial technology*. They discuss that the use of technology to deliver financial solutions is not new, it traces back to 1866. The term was first used by CitiGroup in a project called “Financial Services Technology Consortium” regarding a technological cooperation.

Similarly, Dorfleitner, Hornuf, Smith and Weber (2017) state that Fintech encompasses a range of companies that provide technology to financial services. According to Arner, Barberis & Buckley (2015) fintech is considered today as a new marriage between finance and information technology, but that interlinkage has a long history and has evolved throughout the years.

Since 2008, the term has boomed, and it is now being used to refer to a large and growing range of start-ups that combines technology and financial services. However, Arner, Barberis & Buckley (2015) defend that fintech's should be analyzed under a historical perspective and they distinguish 03 main eras of the fintech evolution.

The first era is called Fintech 1.0 and traces back from 1866 to 1967. During this period, the financial services industry was linked with technology but remained mainly analogue. The industry played an important role to allow the rapid transmission of financial information and transactions all over the world, enabling the globalization of finance (Arner, Barberis & Buckley, 2015).

The second era is called Fintech 2.0 and comprehends the period between 1967 and 2008. This era is characterized by the transformation of the financial industry from analogue to digital thanks to the developments of digital technology and communications. The term fintech was incurred to the regulated financial players (banks) that depended and invested heavily on technological developments (Arner, Barberis & Buckley, 2015).

Finally, the third era is called Fintech 3.0 and begun on 2008. It is mainly characterized by rise of new start-ups and technological companies that started to provide financial solutions directly to the general public. Indeed, it is what distinguishes this period, non-banks no longer provide services solely to banks and regulated financial institutions, they also target businesses and individuals (Arner, Barberis & Buckley, 2015).

Arner, Barberis & Buckley (2015) describe the Global Financial Crisis of 2008 as a turning point. On one hand, banks lost their reputation, giving room for other players to gain legitimacy in providing financial services. On the other hand, skilled banking professionals were dismissed and recent talented graduates battled against a difficult job market, finding fintechs as a place to apply their skills, knowledge and make their career.

“Silicon Valley is coming: There are hundreds of startups with a lot of brains and money working on various alternatives to traditional banking [...] They are very good at reducing the “pain points” in that they can make loans in minutes, which might take banks weeks”.

- **Jamie Dimon CEO, JP Morgan**

Additionally, the regulatory scenario post-crisis brought new obligations that limited the banks capacity to compete and innovate. Apart from reducing the banks capacity to compete, the new regulations also favored the fintechs by facilitating their creation and funding. For example, the Jump Start Our Business Startups (JOBS) Act in the United States launched in 2012 aimed at creating jobs and improving small business the access to capital markets (Arner, Barberis & Buckley, 2015).

As a result, the context provided the right conditions for the emergence of fintechs. It combined a deteriorated public perception of banks, a general predisposition in favor of convenience over trust, knowledgeable unemployed labor force, available funding alternatives and young savvy mobile consumers (Arner, Barberis & Buckley, 2015). The figure 6 summarizes the main eras of fintechs.

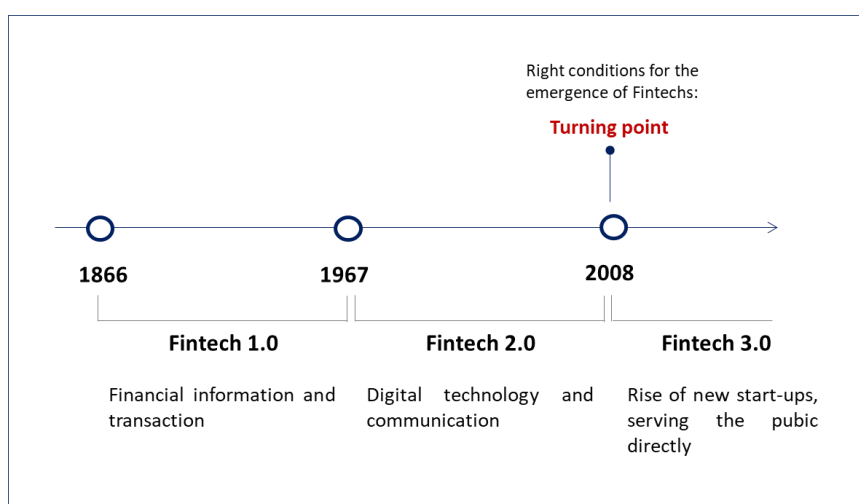


Figure 6: The main Eras of Fintech.

Source: Arner, Barberis & Buckley, 2015. Elaborated by the author

Likewise, BCG issued a report in 2016 (Fintech in Capital Markets) that point out 3 waves of fintech applied to capital markets. The first wave started in the 1970s with the creation of the Nasdaq as the first electronic exchange. The second wave (2000 to 2007) focused on e-trading and, finally, the last wave (2008 onwards) comprises solutions to amend post crisis challenges and includes technologies such as machine learning. The figure 7 shows the capital market's fintechs and the main waves.

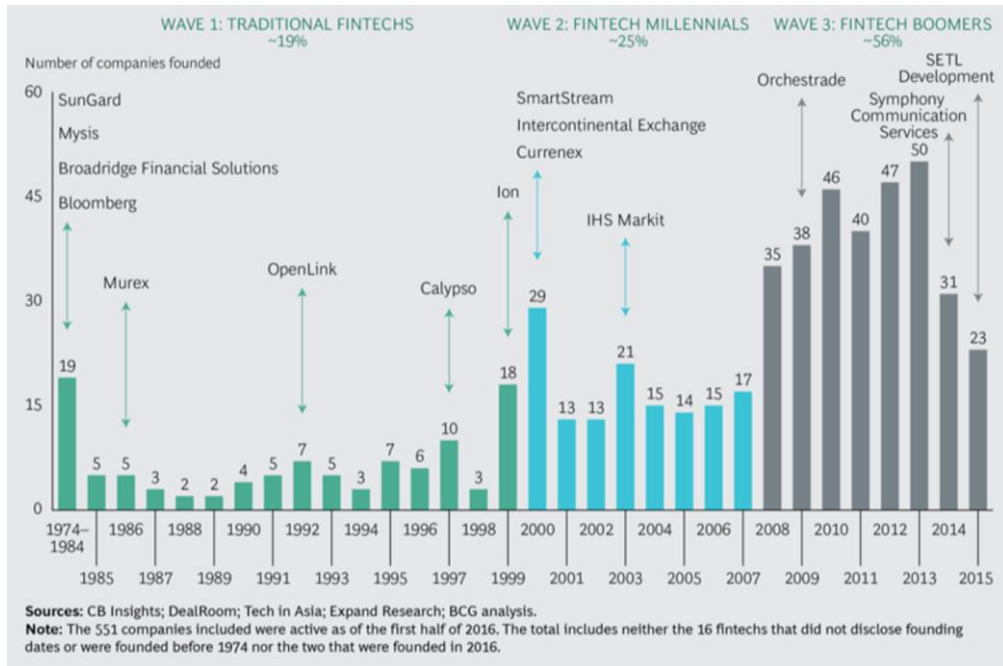


Figure 7: Three major fintechs waves in the capital market.
Source: BCG, “Fintech in Capital Markets”, 2016.

A global study called “Fintech by numbers” conducted by Deloitte Center of Financial Services (2017) shows the rise in the number of fintechs on a yearly basis since 2008. The figure 8 highlights that the number of companies founded per year increased since 2008, reaching its peak between 2012 and 2014. By this period, smartphone had a high penetration rate (especially in developed countries) and the internet service had significantly improved, encouraging the boom of fintechs (Delloite, 2017).

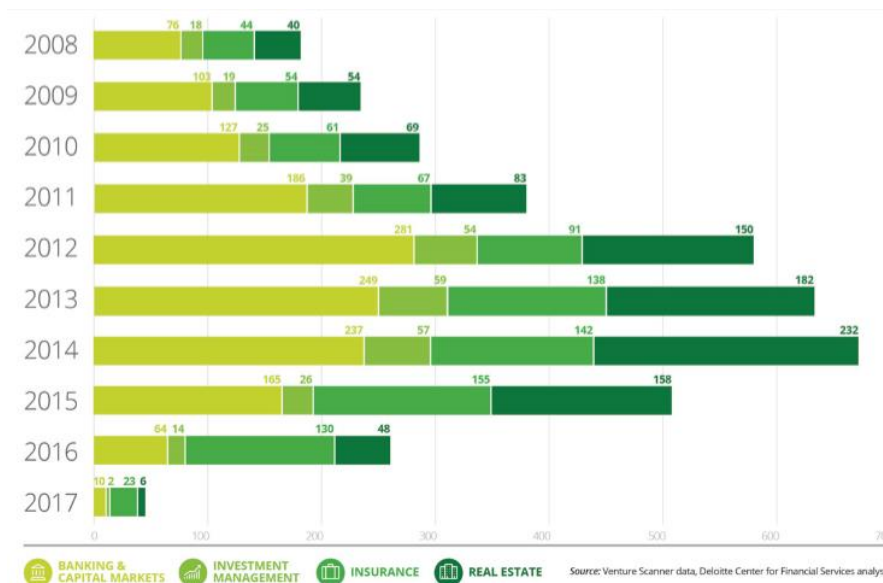


Figure 8: Fintech companies founded by year, 2008-2017 YTD.

Source: Deloitte, “Fintech by numbers”, 2017.

These numbers reinforce the historical evolution of fintechs, proving its existence previously but its boom after the global financial crisis. In this context, it is important to emphasize that many fintechs are in their start-up phase, since they were founded recently. However, not all fintechs are startups, some of them have already reached a maturity level (Dorfleitner, Hornuf, Smith & Weber, 2017).

4.2 The nature of fintechs

As discussed earlier, fintech refers to application of technology to financial services. Therefore, the term encompasses a wide range of companies which differ from each other in terms of business model, offering and technology. Nevertheless, it is possible to identify some shared commonalities.

Firstly, they are based on information. They consider themselves as data-driven. Usually, they use data as a key resource to create and capture value, boosting their value proposition and business model (Caria, 2017). They make use of interconnected networks that facilitates the exchange of data among users (Gimpel, Rau and Röglinger, 2017).

Secondly, they embraced digitalization. They apply technology in a novel way, offering internet-based and application-oriented solutions. Thus, they can better meet the new social needs arisen by millennials: heavy user of smartphones, social media and online platforms (Caria, 2017). Gimpel, Rau and Röglinger (2017) describe a similar characteristic related to Fintech: its direct interaction with the user, requiring no intermediary thanks to the usage of technology driven solutions.

Thirdly, they are able to financially innovate. They improve the traditional products and services, create new instruments and redesign technologies. They bundle products, services and technologies in a different way (Caria, 2017). Gimpel, Rau and Röglinger (2017) also highlight the ability of Fintechs to bundle hybrid products by the combination of physical products and services, enhancing their innovative nature.

Fourthly, they seek partnership with other companies. They partner up with banks, helping them to become more dynamic, efficient and customer-oriented. They also establish alliances with other fintechs and other types of companies to acquire new capabilities. This way, they build an ecosystem that better meet customer needs. Indeed, this is an important trend within the sector, many banks have not only partner but also invested and acquired fintechs in the past years (Caria, 2017).

Finally, they are customer-centric. They are built upon strong customer propositions related to simplicity, convenience, transparency and personalization, resulting in differentiated experiences. Gimpel, Rau and Röglinger (2017) emphasize the ability of Fintechs to personalize and customize their service according to the particular need of a customer or group.

As mentioned earlier, the third wave of fintechs inaugurated in 2008 is grounded on technology and innovation, being the main endogenous forces behind their success. They combine technology driven solutions and bundle products and services in an innovative way to meet customer's needs, competing in most cases directly with banks. They forced banks to improve their offer, incorporate or partner with fintechs in order to remain competitive.

In range of solutions, there are many ways to categorize them. Finnovista (a community of fintech innovators across Latin America and Europe) methodology was chosen due to its granularity, identifying thirteen segments, which allow a better glimpse on the type of fintechs that exist and how they are organized. The thirteen segments are:

- **Payments and Remittances:** this segment involves companies that provide alternative payment methods such as mobile payments and wallets, payment aggregators and gateways, international transfers and remittances. Internationally speaking, it includes companies such as PayPal and Samsung Wallet, for example.
- **Consumer lending:** it comprehends companies that offer credit for consumers and small business. It includes P2P lending alternatives, balance sheet lending and factoring & invoice. One example of fintech of this segment is Avant which makes instant online loans of \$ 1,000 to \$ 35,000.
- **Personal Financial Management:** this segment involves companies that offer solutions that help consumers to better manage their personal finance. They are focused on

financial education, saving and financial efficiency. One famous from this segment is Guia Bolso in Brazil.

- **Personal Financial Management – Comparison:** it is a sub-segment from PFM. These companies provide a set of comparison tools that enable customers to compare loan rates online, prices and, including their finances with peer group.
- **Crowdfunding:** this category refers to collective funding models. They provide alternative ways to raise non-equity and non-debt financing. It ranges from rewards, equity, donations and real estate crowdfunding.
- **Enterprise Financial Management:** this segment provides management financial solution for companies such as digital accounting, electronic invoicing, financial management and business intelligence, payment collection, among other services.
- **Insurance:** it involves companies that provide alternative insurance for consumers and companies in their variety of needs. It includes P2P (peer-to-peer) insurance, car insurance, life, home, property and enterprise insurance, for example.
- **Scoring, Identity & Fraud:** this segment includes companies that provide solutions that secure transactions, authenticate users and prevent fraud.
- **Corporate Lending:** it serves large companies in their need of debt financing and credit risk.
- **Trading & Markets:** the fintechs of this segment provide services relating to primary issuance, security trading and facilitate trade advisory. Through specific platforms and algorisms, they offer more automated ways to invest and trade in the variety of markets and assets such as stocks, commodities, currencies, among others.
- **Enterprise technology:** this segment develops and delivers software focused on B2B. such as enterprise resource planning (ERP), data-base management systems, cloud-based solutions among others. Their solutions are increase efficiency and automation across departments.

- **Wealth management:** it refers to companies that offer solutions that help investors to make better investment decision and optimize portfolio management. The robot-advisor is one of the main technologies used by this segment.
- **Neobanking:** this segment has been recently created to incorporate digital-banking companies. They partner with traditional banks to allow the physical interface with their consumers such as KYC (know your customer) procedures and money withdraw, for example.

A relevant point to be touched about fintechs is its regulatory aspect. Since they are considered technological companies, they circumvent the traditional regulation applied to banks and financial institutions. Today, it is difficult to apply or standardize any kind of regulation given their diversified nature in terms of technology, business model and services provided (Dorfleitner, Hornuf, Smith & Weber, 2017).

This scenario, on one hand, gives a competitive advantage to fintechs when compared to banks but, on another hand, points out a concern on the quality and reliability of the services provided from a customer perspective. For example, a Swedish P2P platform went bankrupt recently due to bad practices in credit concession (Dorfleitner, Hornuf, Smith & Weber, 2017).

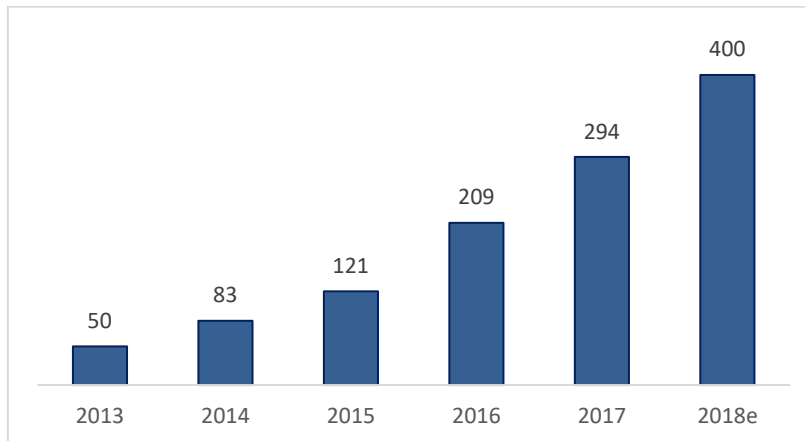
Therefore, fintechs are at an early stage of regulatory development. There is clearly a need to create rules to regulate the sector and ensure minimal standards. A large discussion has been carried out among regulators on international level but the outcomes are still to be seen (Dorfleitner, Hornuf, Smith & Weber, 2017).

Lastly, for the matter of clarity, this master dissertation considered fintech as any company that provide financial services, combining technology and innovation. Hence, due to the type of the researches undertaken, the findings are applied mostly to fintechs that offer services to the general public, more specifically consumers (B2C), regardless of its segment or nature.

4.3 Fintechs in Spain

The first fintech in Spain was founded in 1997. However, the sector has boomed in the recent years, as the graph 3 illustrates. According to Finnovista (2017), the number of fintechs in Spain

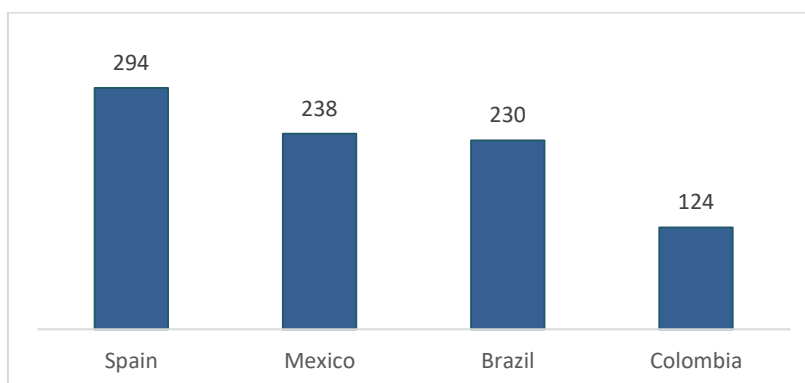
has jumped from fifty to circa three hundred between 2013 and 2017, meaning that the sector has multiplied in the past three years. This rapid growth is expected to continue, hitting over four hundred by the end of 2018.



Graph 3: The evolution in number of fintechs in Spain.
Source: Finnovista (2017) and Mooverang (2016). Elaborated by the author.

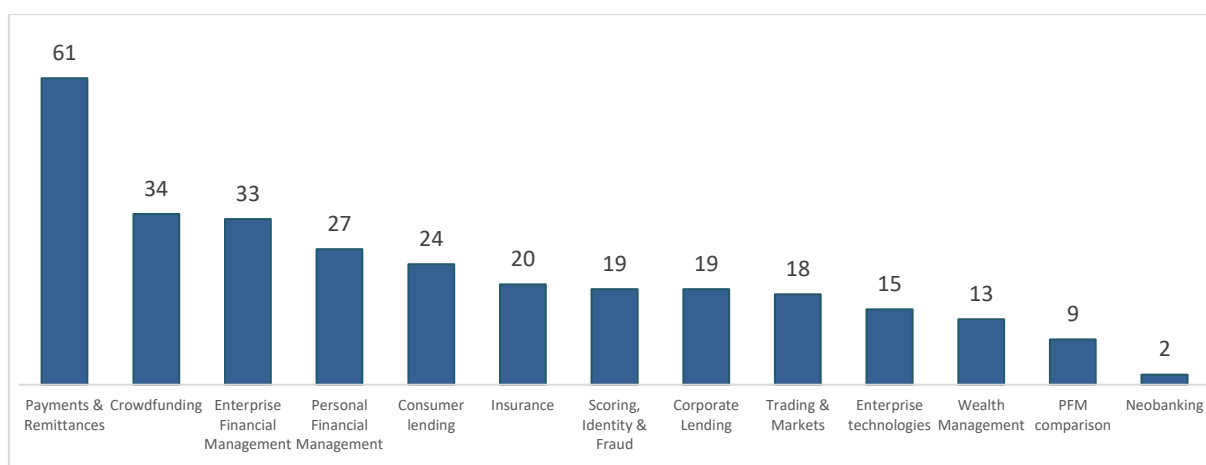
The Spanish Association for Fintech defends that fintechs have been important to reduce the unemployment rate, being responsible for the creation of over 1,000 jobs in 2017. Indeed, some argue that the availability of a talented workforce (unemployed) combined with low costs of living in Spain, helped the country to become a competitive hub in the Western Europe.

Apart from its role in the Western Europe, Spain has positioned itself as the largest fintech ecosystem of Ibero-America. The graph 4 shows that Spain hosts the largest number of start-ups, surpassing Mexico (238 start ups), Brazil (230) and Colombia (124). The data is part of a study conducted by Finnovista in 2017.



Graph 4: The number of fintechs in the main Ibero-American markets, 2017.
Source: Finnovista (2017). Elaborated by the author.

The Spanish fintech ecosystem comprehends a wide range of services. Nonetheless, about 20% of the fintechs are concentrated on Payments & Remittances, followed by Crowdfunding (12%) and Enterprise Financial Management (11%). Crowdfunding fintechs have also been receiving a special focus in terms of investment in the past years. The graph 5 shows the number of around the thirteen segments described earlier in this chapter (Finnovista, 2017).



Graph 5: The number of fintechs according to the service provided, 2017.

Source: Finnovista (2017). Elaborated by the author.

With recent boom in the market, 75% of the start-ups have been founded in the past 5 years. More than a half are based in Madrid, followed by Barcelona (11%) and Valencia (5%). Additionally, half of them are quite small, having a workforce of 10 or less employees (Mooverang, 2016).

As reported by Finnovista (2017), more than 80% of the start-ups target the B2C segment, competing directly with traditional banks. Most of them focus on the alternative payment methods and lending, providing credit. Going further on the representativeness of fintechs, the prediction is that they will compete for 20% of the Spanish banking market in the next 5 years.

A recent study conducted by EY (EY Fintech Adoption Index, 2017) finds that 37% of the online users in Spain also make use of fintech services to manage their accounts, pay, transfer or hire insurance. This percentage is above the average (33%), ranking Spain in the 6th position of the adoption rate across the 20 markets analyzed, as shown in figure 8. The study concludes that fintechs has reached initial mass adoption in most markets, including Spain, moving from early adopters to early majority (EY, 2017).

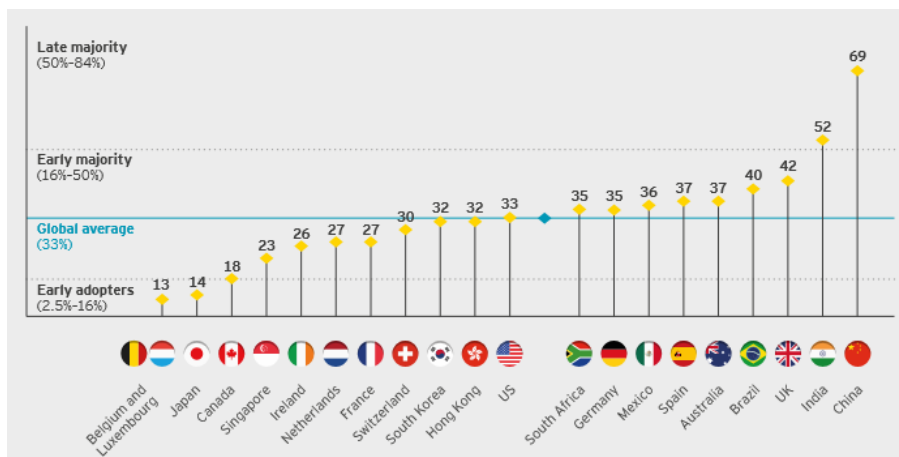


Figure 9: The progress of fintech across 20 markets, 2017.
Source: EY Fintech Adoption Index, 2017.

As Alexandre Lima (Mooverang Executive Manager) explains, the global financial crisis has changed the paradigm of the financial sector. The crisis has hindered the reputation of the banks and, as a result, consumers started to look for alternative financial providers such as fintechs. This logic can be applied not only to Spain but also on a global level. However, since the Spanish financial market was one of the most affected by the crisis, it helps to explain the high rate of fintechs adoption and the emergence of new companies.

“La crisis de 2008 generó un cambio de paradigma en el sector financiero. Aumentó la desconfianza de los consumidores hacia los bancos, hubo una mayor concienciación entre la población sobre la imperfección del sistema financiero, y cada vez más usuarios buscaban alternativas para dejar de ser controlados y dependientes de las instituciones financieras tradicionales”

- Alexandre Lima, Mooverang Executive Manager, 2016.

Indeed, a recent report issued by KPMG (El nivel de madurez digital en España, 2017) argues that the success of the fintechs is a consequence of its correct interpretation of the social changes that the population has been through in the past few years. On one side, the consumer has changed its habits and characteristics, being now more informed and connected. On the other side, the fintechs were able to appropriate the technology that already existed and apply to the financial services sector (KPMG, 2017).

The report also states that fintechs improve and optimize the services and products offered by traditional banks. The future scenario is an alliance between both players in which fintechs help banks to increase their efficiency and quality level (KPMG, 2017).

“La mayoría de las soluciones aplicadas tienen potencial para complementar y mejorar los servicios y productos bancarios tradicionales y cómo estos se ofrecen a los clientes, sin que supongan, a priori, un alto riesgo de disrupción para el sector”.

"Most of the solutions have the potential to complement and improve traditional banking services and products and how they are offered to clients, without, a priori, posing a high risk of disruption for the sector."

- **KPMG, El nivel de madurez digital en España, 2017.**

Fintech Spain has conducted a research with several startups. The results reveal that the majority of the CEOs expect a market consolidation in the next 3 to 5 years. They also stated the importance of establishing alliances with banks and other fintechs in order to strength the sector. In the opinion of 60% of the participants, the main challenge of the fintechs is to improve the reputation in order to increase its acceptance among consumers (Fintech Inside, 2017).

Another important characteristic of the Spanish fintech market is its future potential. The London positioning as a global fintech hub is threatened by the Brexit, arising an opportunity for other European cities with strong financial activity. In this context, experts from Finnovista believe that there are great chances for Spain if the country manages to build an interconnected financial ecosystem with both Europe and Latin America, attracting talents from both continents to cities such as Madrid and Barcelona (Finnovista, 2017).

To conclude, the Spanish fintech market has spanned in the past years and seems to have a bright future, potentially consolidating its leadership as a fintech hub in Europe. Fintechs have been finding a room to compete with banks by launching digital, convenient and cheaper financial solutions targeted to connected-consumers. Their success is a combination of several factors such as banks diminished reputation, cultural and social environment prone to accept and adopt online and digital financial services and, finally, the usage of technology to deploy alternative and innovative solutions.

5. METHODOLOGY

5.1 Research Proposition

This master dissertation aimed at explaining the rise of fintechs in Spain under an academic basis. The objective was to conclude if they are promoting a disruption or if they are part of the evolution process of the banking sector, answering the following questions:

- Are fintechs disrupting the banking industry? or
- Are fintechs driving the evolution of the banking industry?

In order to shed a light on these questions, five theories were applied to assist in the understanding of the current situation of the banking sector, providing an academic explanation for the phenomenon of fintechs. Based on these theories, five propositions were formulated to be assessed in this master dissertation.

Propositions were used to explain the apparent relationship among an observed phenomenon and their theory (conceptual framework). According to Yin (2013), propositions focus on particular relationship between events, without having to comply with a rigorous characteristic required by hypothesis. Therefore, they narrow down the objective of research and serve as a guideline for findings and discussion.

It is important to emphasize that this project collaborates to explain the phenomenon of fintechs under an academic perspective. However, it followed the concepts and definitions provided by the theories studied such as disruption according to Christensen and evolution according to Klepper. Additionally, given the type of research conducted, the findings apply mostly to a specific range of fintechs: the ones that offer services to the general public, mostly consumers (B2C).

Therefore, future exploration is, then recommended, to apply other theories and expand the type of fintechs assessed. It is also suggested the formulate, test and validation of hypothesis derived from the propositions and conclusion of this project.

Proposition 1: Spanish banks are relatively homogeneous and seek legitimization.

This proposition was formulated based on the **institutional theory** firstly formulated by DiMaggio & Powell in 1983. Applying the theory to this dissertation's context, banks would be approval-seekers. They would act according to accepted norms to ensure their legitimate status within their organizational field. External forces pressure towards homogenization, leading them to adopt similar strategies, structures and processes (DiMaggio & Powell, 1983).

Indeed, reputation is key in the banking sector, being considered as one of the most important assets of the financial institutions. Due to the intangible nature of the service provided, reputation grants confidence and reliability over the customers and other actors' perspective. Additionally, they are subject to a severe normative framework that rules their daily basis operations (Buckley & Nixon, 2009).

Homogenization is also evident. Banks provide similar products, services and share best practices among each other through the participation of professional groups, associations and the intense movement of talents. Internally speaking, they usually adopt similar organizational structures and terminologies (Wagner, 2008). Therefore, it seems that banks are subject to coercive, mimetic and normative isomorphisms arisen from the external environment.

In short, the main goal of this proposition was to understand the banks behavior and how such behavior by itself could have triggered the emergence of fintechs. For example, the intense homogenization within the bank industry could have contributed to the rise of fintechs and their acceptance among the general public.

Proposition 2: Some Spanish banks have managed to differentiate themselves from the competition, gaining a competitive advantage from a customer point of view.

This proposition was developed around the **Resource Based View Theory** that emerged in the 80's in the strategic management field, including famous scholars such as Barney (1986), Rumelt (1984) and Wernerfelt (1984). The theory emphasizes institution's internal outlook. It defends that capabilities and resources are usually heterogeneously distributed across companies and they can be a source of competitive advantage (Barney, 1991).

Most of Spanish banks are large institutions and, therefore, they have resources such as capital, people, skills, know how, knowledge, technology as well as financial means. Thus, it is possible to consider that, in general, banks have abundant resources, being more prepared to deal with external pressures and more prone to innovate due to their availability of resources.

In this context, banks have always played an essential role in the society, intermediating savers and borrowers. They have been around since the creation of the currencies, financing empires, governments and societies. The historical overview of the banking sector shows that technology has been inherent to their activity and evolution. It enabled banks to perform their core function, increasing efficiency, data capacity and introducing new financial instruments and channels (Samakovitis, 2012).

Even though banks are increasingly alike, some banks might hold a differentiated position over the competition. The theory explains that differentiation is attained when institutions are able to bundle resources and capabilities that are unique, scarce and valuable (Barney, 1991). Moreover, bank's availability of resources provides them a cushion to risk innovating and to address new pressures arisen from the external environment.

In short, the main objective of this proposition was to understand the internal perspective of bank's behavior. If banks were able to bundle resources in a way that generated a competitive advantage, holding a differentiation positioning perceived by customers, fintechs would have been less propense to successfully emerge and pose a threat to banks.

Proposition 3: Recently, banks have failed to innovate, not addressing latent social trends and giving room for new competitors.

This proposition is based on the **institutional innovation theory**, a derivation from the institutional theory. It defends that institutional factors affect company's propensity to innovate. It helps to explain that firms, over time, innovated in order to meet new social beliefs, cultural nuances or environment changes, ensuring their legitimization (Raffaelli and Glynn, 2013).

Considering the definition of Raffaelli and Glynn (2013), institutional innovation occurs when existing institutions adapt towards new opportunities, respond to changed environments or meet new cultural nuances. Thus, from an institutional point of view, banks seem to have failed to

innovate in the past years, not being capable of detecting and adapting to the new social and cultural changes.

In fact, banks have been introducing or incorporating innovative solutions over time. The historical review of the banking sector teaches that technology has been part of its history. The last and current wave of technological development aimed at addressing the new regulatory demands and social changes towards digitalization and convenience (Arner, Barberis & Buckley, 2015).

However, the global financial crisis of 2008 was a turning point in the banking sector. It triggered a series of factors that are paramount to understand the current scenario. In the post-crisis, banks are characterized by a reduced reputation and strong regulatory pressure. Consequently, banks saw their capacity to innovate and deal with social trends weakened (Arner, Barberis & Buckley, 2015).

In short, the main objective of this proposition was to understand the ability of banks to assess new societal scenario and adapt accordingly. If banks have failed to innovate, not addressing emerging social demands, this behavior could have stimulated the emergence of fintechs to fill in this gap between the new profile of customers and the services provided by financial institutions.

Proposition 4: Fintechs do not fall into the classification of innovative disruption.

This proposition is grounded on the **innovative disruption theory** created by Clayton M. Christensen which states that disruptive innovation is a process through which entrants initially serve overlooked markets (low-entry or up-tapped markets) and, over time, they improve their quality to move up and target mainstream customers.

In this context, fintechs emerged, reaching their peak between 2012 and 2014 thanks to the large penetration of smartphones and internet. They gained legitimization and were able to correctly interpret and address latent social trends, offering easier, more convenient and cheaper financial solutions directly to consumers (Delloite, 2017).

Since 2008, the fintechs are transforming the sector but their disruptive power is still to be proved. It seems that fintechs are not disrupters because they target banked customers,

competing directly with banks, and the service provided were embedded in a strong value proposition, being supposedly superior than traditional bank's offering.

In short, the main objective of this proposition was to assess if fintechs fit into the definition of disruptive innovation provided by Christensen, evaluating their overall impact on the banking industry.

Proposition 5: Fintechs are driving the evolution of the banking industry.

This proposition is based on the **industry evolution** firstly discussed by Steven Klepper in the 80s. The literature which defends that industries follow a lifecycle pattern, going through 4 main phases, from birth to decline (Gort & Klepper, 1982).

In this context, one can argue that the crisis altered the industry's dynamics, triggering a "*shake out*" and consolidation process through merges and acquisitions. Consequently, the number of players reduced significantly, a typical characteristic of the maturity stage. In Spain, for example, the number of banks and financial institutions have drastically fallen since 2007 (Statista, 2016).

As seen in previous chapters, fintechs are not new. The literature suggests that fintechs have been shaping the banking industry since 1866 when technology started to be applied to enable financial services. Therefore, they have been part of the banking industry from a historical point of view, proving technological solutions to boost banks' efficiency and operational excellence (Arner, Barberis & Buckley, 2015).

However, the crisis also led to a change in the fintech's business models. They saw the opportunity to target the overall public instead of solely providing back end services and technologies to financial institutions. They took advantage of the new social scenario and managed to combine technology and innovation to offer differentiated value propositions.

As a result, the number of fintechs rose substantially after 2008. The number of new companies founded on a yearly basis found a peak between 2012 and 2014 but seems to have reached a stability, with fewer start-ups being created from 2014 onwards (Deloitte, 2017).

Taking all into consideration, it seems that fintechs have been part of the banking industry, playing distinct roles throughout its evolution. Currently, they seem to be driving the industry evolution from within because they personify the combination of technological progress and innovation: two driving forces that are catalyst for change with the power to regenerate industries life cycles and alter their dynamics (Li, Li, Zhao & Wang, 2014).

In short, the main objective of this proposition was to assess if fintechs are driving the evolution of the banking industry and their overall impact on the sector.

5.2 Research Approach

Given the nature of this project, an exploratory qualitative research was adopted. According to Neves (1996), a qualitative approach permeates the object of study in a holistic and deep way, enabling an understanding of its internal dynamics and multiple aspects. It favors a holistic view of the phenomena, taking account all components, influences and interactions around it.

Patton (2002) says that qualitative research has an open and flexible design that is adaptable to the circumstances. He claims that its primary purpose is to generate or test a theory, contributing to the overall knowledge. The findings of this type of research is a combination of a description and analysis based on selected samples.

With the objective to understand if fintechs disrupt the banking sector, it is key to discover the underlying perceptions and thoughts of the customers. For example, how they perceive traditional banks in contrast to fintechs, how open they are to hire Fintech services, if they have changed their financial habits, among others. The opinion of experts such as Fintechs owners and Banking executives are also important to understand the dynamic of the market and how they interact with one another.

According to Patton and Cochran (2002), the qualitative research usually aims to provide an in-depth understanding of people's experiences, attitudes and different perspectives. Merriam (1998) corroborates on that point by arguing that a basic qualitative study is "*seek to discover and understand a phenomenon, a process, or the perspectives and world views of the people involved*". Therefore, a qualitative approach best suits the concern of this dissertation by

assessing the necessary insights and impressions of the main stakeholders involved: the customer, the Fintechs and the Banks.

Additionally, this approach enriches the analysis with multi-perspective insights, allowing a *triangulation* process based on evidence from multiple sources in order to yield a more balanced and complete view and cross-validating the conclusion of this master dissertation (Elliot & Timulak, 2005). Indeed, this study made use of distinct triangulation processes, strengthening the consistency and reliability of its findings (Patton, 1999):

- **Triangulation of sources:** it was supported by different sources of data, ranging from recognized scholars, experts, relevant agencies, governmental bodies to reputable consultancies.
- **Triangulation of research methods:** it carried out distinct research methods such as documentary analysis, interviews, surveys and questionnaires to collect the perceptions, opinions and experiences from main stakeholders involved: customers, bank and fintech professionals.
- **Theory triangulation:** it integrated 5 theories to broaden the interpretation and the analysis of the current banking scenario.

It is important to point out, however, that this project has put a higher weight in the customer opinion, conducting distinct research methods to gather their perception and a larger sample. Therefore, even though banking and fintech experts were reached out to contrast the findings, seeking a balanced and holistic view of the current scenario from the perspective of its different players, the customers perception had a greater influence in the results of this master dissertation.

5.3 Data Collection

There are different ways to collect the appropriate data needed to address the problem in hand. Primary data is usually collected through experiments, surveys or interviews, for example. In

contrast, secondary data is based on data that have been collected, interpreted and analyzed by other people (Walliman, 2011).

For the purpose of this dissertation, both primary and secondary data were collected. On one hand, literature review and document analysis were carried out in order to understand the background of the study, opinions and evidences already available. On the other hand, personal interviews, semi-structured interviews and online survey were also used to gather primary data, enhancing the quality and validity of the conclusion reached.

5.4 Research Method

According to Walliman (2011), research methods are the techniques used to collect, sort and analyze information. The right combination of methods are crucial to convince people about the validity of the conclusions reached and knowledge created.

In order to verify the propositions formulated, several methods were used and combined in order to maximize the collection data, its quality and validity. The methods used are described and justified below.

Document analysis was used with the intention to collect independent and verifiable data and information. This method provided a systematic procedure for identifying, analyzing, and deriving useful information from existing documents (Bernard, 1988).

Document analysis was crucial to understand the context of the banking industry, the rise of fintechs, qualitative data related to the number of Fintechs and Banks in Spain and the theories described earlier in the literature review. The documents analyzed were produced by experts and researches, ensuring the credibility of the data collected.

For example, academic papers, newspapers, research and consultancy reports were considered as source of information in order to extract quantitative and qualitative data about the banking industries and Fintechs in Spain.

Semi-structured interviews with experts such as banking executives and fintechs representatives were also be held to complement the analysis and collect primary data. They

were conducted based on a script of questions (appendix 1 and 3) prepared in advance to tackle the main topics related to the field of study.

According to Bernard (1988), in semi-structured interviews, the interviewer develops a list of questions and topics to guide the conversation. It can provide reliable and comparable data, allowing the respondent to express its opinion freely.

In this dissertation, interviews with experts were carried out in order to assess the point of view of Fintech and Banks's representatives by gathering their opinion and perceptions about the present research problem and its propositions. They were reached out by LinkedIn.

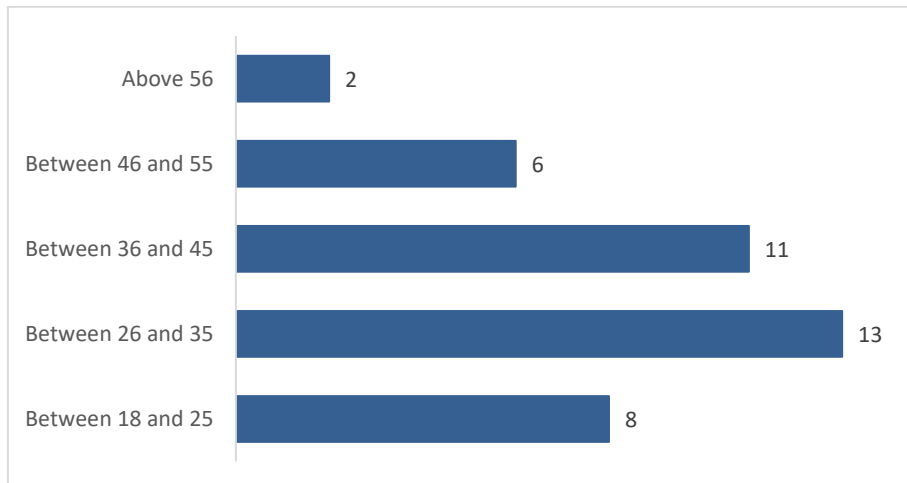
When not possible to conduct a semi-structured interview due to agenda or other inconveniences, an online questionnaire was sent by mail to the participant as a tool to gather and consolidate relevant information. In these cases, other secondary sources were also used to corroborate with the key findings. The table 1 summarizes the main professionals and the research method used.

Professional	Profile	Group	Method	Date
a	Ex-director of technology and innovation of Santander in Spain, more than 30 years of experience in the banking sector	Banking professionals	Semi-structured interview	Feb`2018
b	Spanish bank employee reached out at LinkedIn specific groups and networks	Bank professionals	Online questionnaire	Feb`2018
c	Spanish bank employee reached out at LinkedIn specific groups and networks	Bank professionals	Online questionnaire	Feb`2018
d	Spanish bank employee reached out at LinkedIn specific groups and networks	Bank professionals	Online questionnaire	Feb`2018
e	Spanish bank employee reached out at LinkedIn specific groups and networks	Bank professionals	Online questionnaire	Feb`2018
f	CEO of a fintech specialized in risk and currency management solutions	Fintech professionals	Online questionnaire	Feb`2018
g	CoFounder and Head of Growth of a company that provides a dedicated space for fintech's information	Fintech professionals	Online questionnaire	Feb`2018
h	Business Development Manager of a fintech specialized in personal financing	Fintech professionals	Online questionnaire	Feb`2018

Table 1: Banking and Fintech professionals reached and the correspondent research method.
Source: Elaborated by the author.

Online survey (appendix 5) was also used to gather to assess the opinion of a larger number of Spanish customers and understand their perceptions, opinions and experiences about traditional banks and Fintechs. According to Walliman (2011), a survey is a questionnaire suitable to gather qualitative data. This method was chosen due to its flexible and convenient advantages, allowing to gather information from a wide range of customers.

The survey consisted of open and closed questions. It was set up on Google Form and the link was sent to colleagues (work, university and LinkedIn contacts). In order to fill in the survey, the requirement was that the person lived in Spain and held an account in any Bank constituted in the country. The survey was launched in February 2018, having 40 respondents ranging from 18 to 56 years, as shown in graph 6.



Graph 6: Online survey with customers – respondents' age distribution.
Source: Elaborated by the author.

Finally, personal structured interviews were conducted with customers in order to in-depth assess their perceptions, better understanding the survey results. This kind of method aims at collecting information personally from the concerned source. It involved the usage of pre-determined questions (appendix 7) and answers were noted and registered in the questionnaire for later analysis (Kothari, 2004). The table 2 summarizes the profile of the customer interviewed.

Interview Number	Nacionality	Age	Group	Method	Date
1	Spain	24	Customers		March'18

2	Spain	24	Personal structured interview	
3	Brazil (living permanently in Spain)	27		
4	Colombia (living permanently in Spain)	30		
5	Spain	34		
6	Spain	39		
7	Spain	45		
8	Spain	50		

Table 2: Profile of the customers interviewed.
Source: Elaborated by the author.

For a matter of transparency and organization, the table 3 was formulated to summarize the research methods used to assess each one of the propositions, the theory behind each one of them.

Theory	Proposition	Elements of the Theory	Research Method
Institutional Theory	1 Spanish banks are relatively homogeneous and seek legitimization.	Existence of isomorphism evidences,	Online survey with Spanish bank's customers Personal interviews with customers Online questionnaire with banking professionals
		Seek of legitimization	Online survey with Spanish bank's customers Personal interviews with customers Documentary analysis
Resourced Based View	2 Some Spanish banks have managed to differentiate themselves from the	Internal resources as competitive advantage	Online survey with Spanish bank's customers Personal interviews with customers

	competition, gaining a competitive advantage from a customer point of view.		Online questionnaire with banking professionals
		Companies with abundant resource invest on innovation as a way to differentiate themselves	Online questionnaire with banking professionals Personal interviews with customers Documentary analysis
Institutional Innovation	3 Recently, banks have failed to innovate, not addressing latent social trends and giving room for new competitors.	Isomorphic forces change according to the cultural, economic and environmental shift	Online survey with Spanish Bank customers Personal interviews with customers Online questionnaire with banking professionals Documentary analysis
Disruptive Innovation	4 Fintechs do not fall into the classification of innovative disruption.	Serve overlooked markets (low-entry or up-tap markets), avoiding direct competition	Online survey with Spanish Bank customers Personal interviews with customers Online questionnaire with Fintech professionals Documentary analysis
		Target mainstream customers after quality reach specific standard level	Online survey with Spanish Bank customers Personal interviews with customers Online questionnaire with Fintech professionals

			Online questionnaire with banking professionals Semi-structured interview with banking executive
Industry evolution	5 Fintechs are driving the evolution of the banking industry.	Technology and innovation are driven forces behind fintechs	Online survey with Spanish Bank customers Personal interviews with customers Online questionnaire with Fintech professionals Online questionnaire with banking professionals Documentary analysis
		Evidences of industry lifecycle and regeneration	Documentary analysis

Table 3: Theories, propositions and the correspondent research method.
Source: Elaborated by the author.

5.5 Data analysis

Different from quantitative data, the qualitative data is more difficult to be analyzed given its soft nature, being bound up with human's opinions, attitudes and judgments Walliman (2011). It relies on a linguistics rather than a numerical information, requiring a meaning-based form of data analysis (Elliot & Timulak, 2005). Two main types of data analysis was chosen and they vary according to the type of information gathered.

On one hand, the interpretative analysis was applied to the interviews and overall secondary data. This type of analysis focuses on the response, what can be inferred from it and its overall context and meaning rather than the detailed comments or description of the information

gathered. The data was contextualized, compared and filtered in a way that the relevant insights and findings were described and discussed in this project, according to the interpretation of the author (Walliman, 2011).

On the other hand, structured/formal analysis was chosen to process the data gathered from the online survey due to its relatively quantitative nature. The data was consolidated in a excel spreadsheet which allowed the preparation of graphs and tables that helped the extraction of the main findings highlighted in this dissertation (Walliman, 2011).

6. RESEARCH FINDINGS

The main objective of this master dissertation was to understand the fintechs phenomenon under an academic basis and conclude if they disrupt the banking sector or if they are driving the industry evolution. Five theories were used to help explaining the current scenario of the industry and the rise of the fintechs. Each one of these theories gave a path for the formulation of a proposition. Thus, five propositions were assessed by an exploratory research conducted as described in the Methodology chapter and the main findings were summarized below.

6.1 Proposition 1: Spanish banks are relatively homogeneous and seek legitimization.

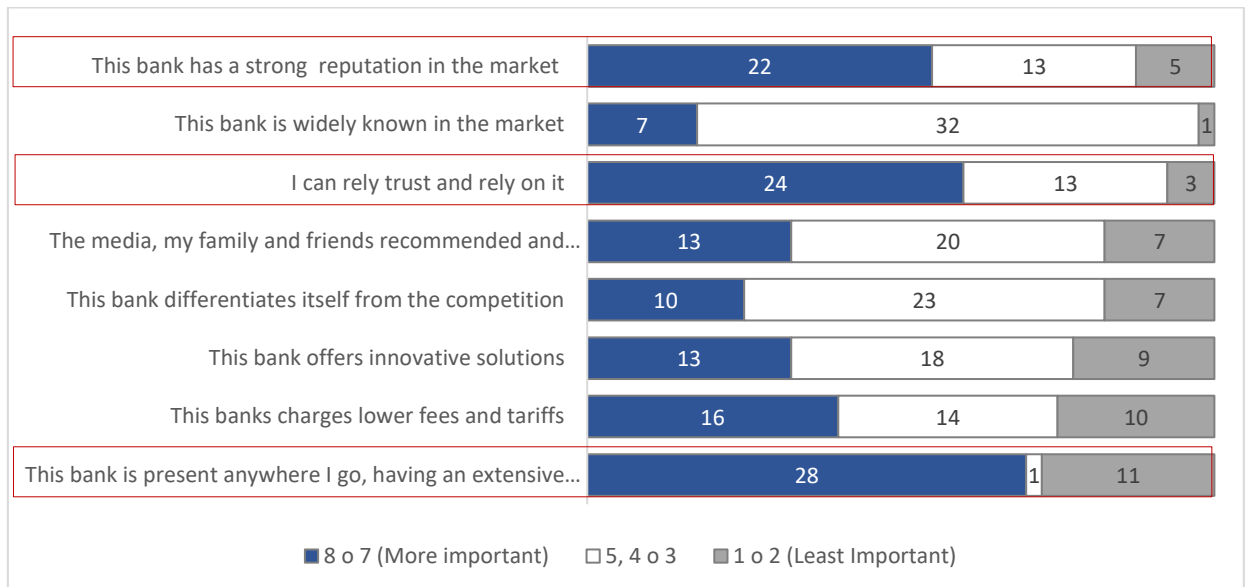
This proposition was formulated based on the **institutional theory**. Two elements of theory were exploratorily assessed in this research: the seek of legitimization and the isomorphism evidences.

- Seek of legitimization:

In the context of the banking sector, the seek of legitimization is expressed by the constant search for reputation. Reputation is crucial for the financial industry, being the main source of legitimacy. It is considered as one of the most important assets of the financial institutions because it grants confidence and reliability over the customers and other actors' perspective (Buckley & Nixon, 2009).

The online survey carried out with customers showed that reputation and confidence seem to play important roles in the decision of becoming a customer and concentrating financial operations on a particular bank. For the question, "Which reasons below would better explain why you are a customer of these banks?", confidence (I trust and rely on it) and reputation are the attributes better evaluated with the majority of people signaling as the most important reason (8 and 7) and fewer people signaling as the least important reason (1 and 2).

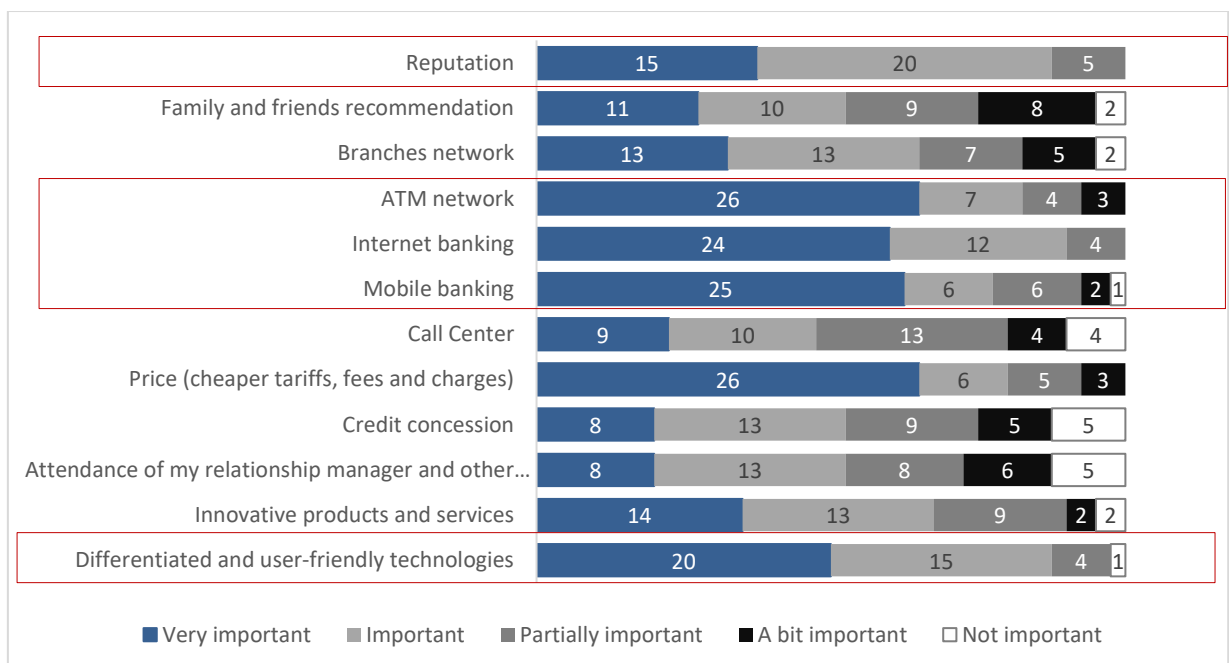
The criteria “being everywhere” (network of branches and ATM) also stood out. 28 people selected as the most important reason to become a client, but it also had the largest number of people that believed that it is the least important factor, as shown in graph 7.



Graph 7: Which reasons below would better explain why you are a customer of these banks?

Source: Online Survey with Spanish customers. Elaborated by the author.

Additionally, 35 out of 40 people answered that reputation is “very important” or “important” in the decision of becoming and remaining a customer of their banks. Other reasons such as ATM network, internet banking and technology also stand out as important reasons and they express the seek for convenience and easiness to use.



Graph 8: How would you evaluate the importance of each one of these elements in your decision of becoming and remaining as customer of these banks?

Source: Online Survey with Spanish customers. Elaborated by the author.

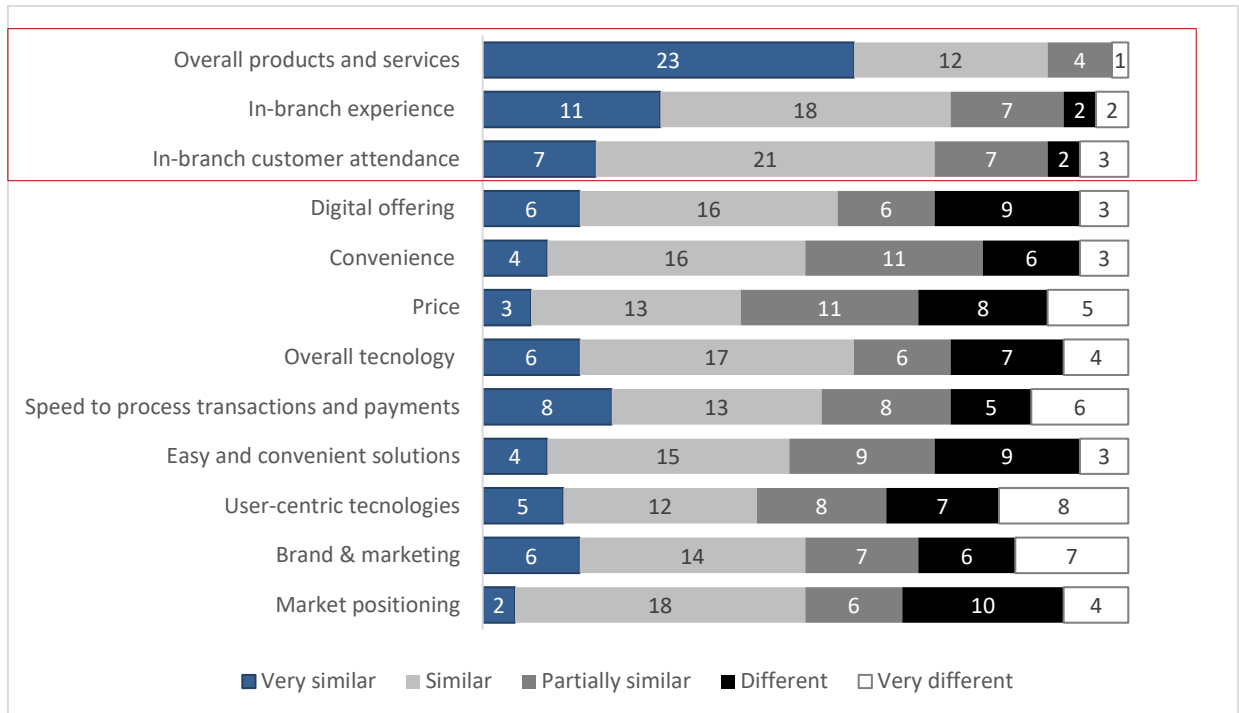
From the interviews carried out with customers, 6 out of 8 believed that reputation is very important. They mentioned that confidence and trust are crucial in their decision of becoming and remaining a client because they need this reassurance over their money. They also said that the reviews and the opinions of the current customers also grant reliability and help to enhance banks reputation.

To corroborate on this point, Brand Finance Spain (2016) issued the ranking of the 100 most valuable Spanish brands of 2016 and 26% of them belong to the banking sector. Actually, Santander holds the 1st position. Another important study in Spain is the ranking of Merco Empresas y Lideres. In 2017, in its XVIII edition, Merco awarded Santander as the 3rd institution with the best reputation in Spain. This information also emphasizes the importance of reputation for the banking sector.

- **Isomorphism evidences:**

The theory states that external forces pressure towards homogenization. For example, regulation, professional associations and the intense movement of talents across the industry lead banks to adopt similar structures, terminologies and structures, shaping their behavior towards similarity (Wagner, 2008).

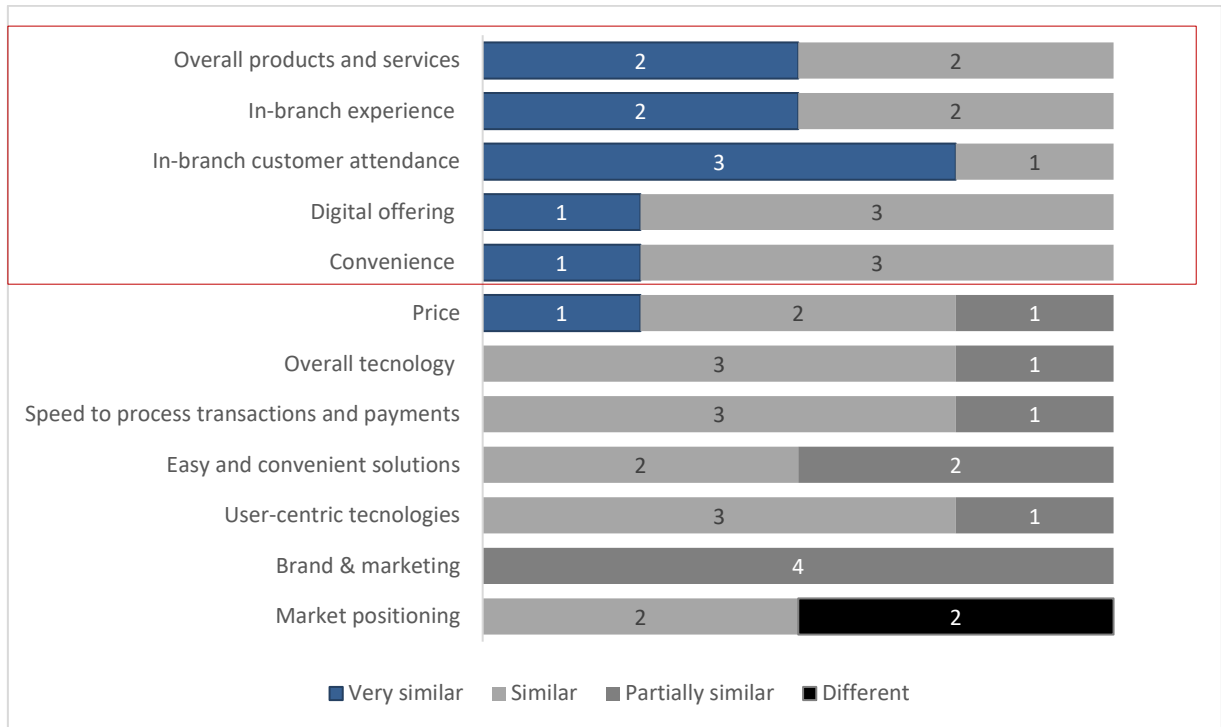
On one hand, the survey carried out with customers showed that they perceive banks very similar among each other. The graph 9 shows that products and services were the element perceived as the most similar among banks: 35 out of 40 people answered that products and services are similar or very similar. In-branch experience and attendance were also evaluated as similar.



Graph 9: How would you evaluate the degree of similarity of each one of these elements among Spanish banks?
Source: Online Survey with Spanish customers. Elaborated by the author.

The interviews also pointed out that, in general, customers perceive a very strong similarity among banks. 7 out of 8 interviewers mentioned that banks are very similar, explaining that the products, services, offers and customer attendance are pretty much the same. The other interviewer said that grasp some differences related to conveniences and online applications.

An even stronger perception of similarity among banks were captured by the online questionnaire conducted with bank professionals, as shown in graph 10. All of them perceive products, services, in-branch experience. Moreover, in-branch attendance, digital offer and convenience were regarded as similar. They explained that banks tend to follow the market leader and, thus, become alike.



Graph 10: How would you evaluate the degree of similarity of each one of these elements among Spanish banks?
Source: Online Survey with Spanish banking professionals. Elaborated by the author

- Analysis:

The exploratory research showed that this proposition seems to make sense. Customers highlighted the importance of reputation and legitimization as reasons to become and remain a customer of a particular bank. It also showed that banks are regarded as similar from both customer and professionals point of view. This finding suggested the existence of isomorphic forces arisen from the external environment.

6.2 Proposition 2: Some Spanish banks have managed to differentiate themselves from the competition, gaining a competitive advantage from a customer point of view.

This proposition was developed around the **Resource Based View Theory**. Two elements of the theory were exploratorily assessed in this research: internal resources as a source of competitive advantage and banks (as companies with abundant resource) investing on innovation as a way to differentiate themselves.

- Internal resources as source of competitive advantage

Even though companies are increasingly alike, some could hold an advantageous position over the competition. The theory defends that capabilities and resources are usually heterogeneously distributed across companies and that differentiation is attained when institutions are able to bundle resources and capabilities that are unique, scarce and valuable (Barney, 1991).

The online survey shows that customers mostly associated differentiation with words such as: customer service, innovation, technology, convenience, easiness of use, personalization and lower commissions. The answers suggest that banks should definitely improve their service towards a digital offer that combine technology, convenience and personalization in order to acquire a competitive advantage.



Figure 10: In your opinion, how could a bank stand out from the others? Which factor would drive their differentiation? (open question)

Source: Online Survey with Spanish customers. Elaborated by the author.

Indeed, banking professionals also provided similar answers to the question: “In your opinion, how could a bank stand out from the others? Which factor would drive their differentiation?”. They also mentioned technology, personalization and innovation.

In the interview carried out with customers, half of them mentioned that there is no bank that stand out, they believed that banks are very similar and none of them have a differentiated positioning or competitive advantage.

The other half mentioned banks such as EvoBank, ING or ImageBank as relatively different from others, but mainly due to their communication. Their communication strategy is mainly based on digital offer, attracting young customers. However, this perception is superficial, because most of them did not become neither is a client of these banks.

Therefore, even though internal resources could generate a competitive advantage, combining abilities related to innovation, technology and customer service, the research suggests that none of the banks managed to develop a sustainable competitive advantage that is recognized by the overall market.

Interestingly enough, the factors mostly mentioned to drive the differentiation of banks are very similar to the competitive advantages customers perceive about the Fintechs. When asked what the main competitive advantages of Fintechs, they mentioned words such as convenience, easiness to use, agile, price, flexibility and technology, as shown in figure 11.

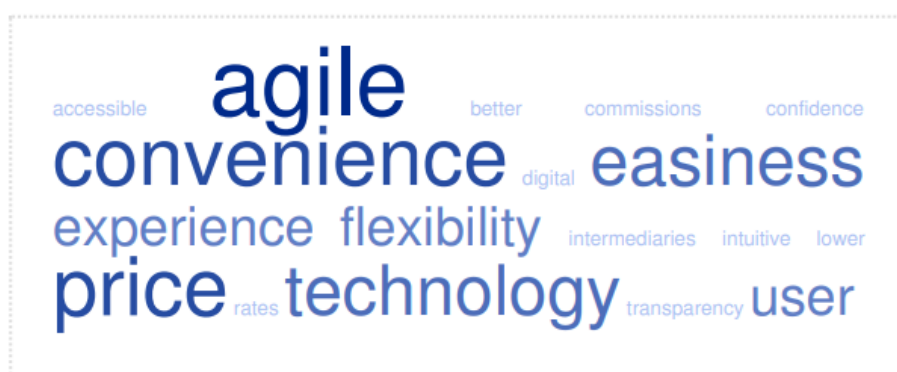


Figure 11: In your opinion, what are the main competitive advantages of Fintechs when compared to banks?
Source: Online Survey with Spanish customers. Elaborated by the author.

- **Companies with abundant resource are more prone to innovate:**

The theory argues that companies with abundant resources are more prepared to deal with external pressures and more prone to innovate due to their availability of resources. In this sense, most of the Spanish banks are big financial institutions and thus have available resources that foster their investment in innovation.

This exploratory research found that banking professionals believed that banks invest just the necessary or should invest more in innovation and technology. Therefore, there is room to increase the level of investment in innovation and technology.

When questioned why banks invest in innovation, they said the main reason is to compete with fintechs and other entrants that are jumping into the banking sector. Other reasons were also mentioned such as to “to acquire a competitive advantage” and “to become more agile and efficient, improving the internal processes”.

The interviews conducted with customers showed that the overall perception is that banks have a very low or medium degree of innovation, not being a reference in terms of innovation. They mentioned that they perceive very simple and incremental innovations. 7 out of 8 also mentioned that banks should invest more or better in innovation. One of the customers mentioned: *“banks are intense in technology, but they are not innovative”*. Another customer mentioned: *“considering the size of banks and their importance for the economy, they should go beyond, invest more and launch trends”*.

A study developed by Accenture Strategy the technology costs of the financial institutions (Accenture Strategy, Estudio de Costes de Tecnologías de la Información en las Entidades Financieras, 2016) revealed that banks invest more in technology but not what they needed to foster their digital transformation. In 2015, around 5% of the Bank’s expenses were dedicated to technological developments but they still lag behind in terms of technology and innovation (Expansión, 2015).

- **Analysis:**

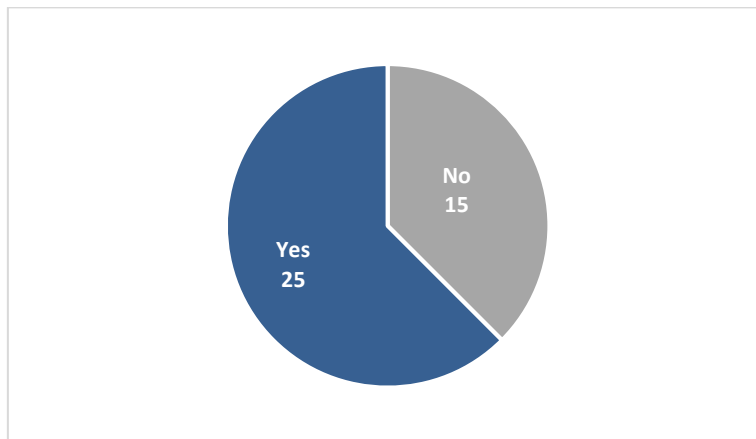
From a customer perspective, it looks like that Spanish banks are very similar and lack differentiation among themselves. Internal resources could be a source of differentiation by the development and acquisition of innovation abilities and technology know how. However, there is a general feeling from both banking professionals and customers that banks could invest more on innovation and technology.

Therefore, this exploratory research showed that this proposition does not make much sense. Even though banks have abundant resources and have been investing in technological developments, it seems that such investment have not produced an innovation neither a differentiation factor. It suggests none of the banks have deployed their internal capabilities in a manner that generated a sustainable competitive advantage.

6.3 Proposition 3: Recently, banks have failed to innovate, not addressing latent social trends and giving room for new competitors.

This proposition is based on the **institutional innovation theory**. The theory states that institutional factors affect company's propensity to innovate, pushing an adaptation accordingly to the circumstances. It explains that firms, over time, innovate in order to meet new social beliefs, cultural nuances or environment changes, ensuring their legitimization and alignment with prevailing norms.

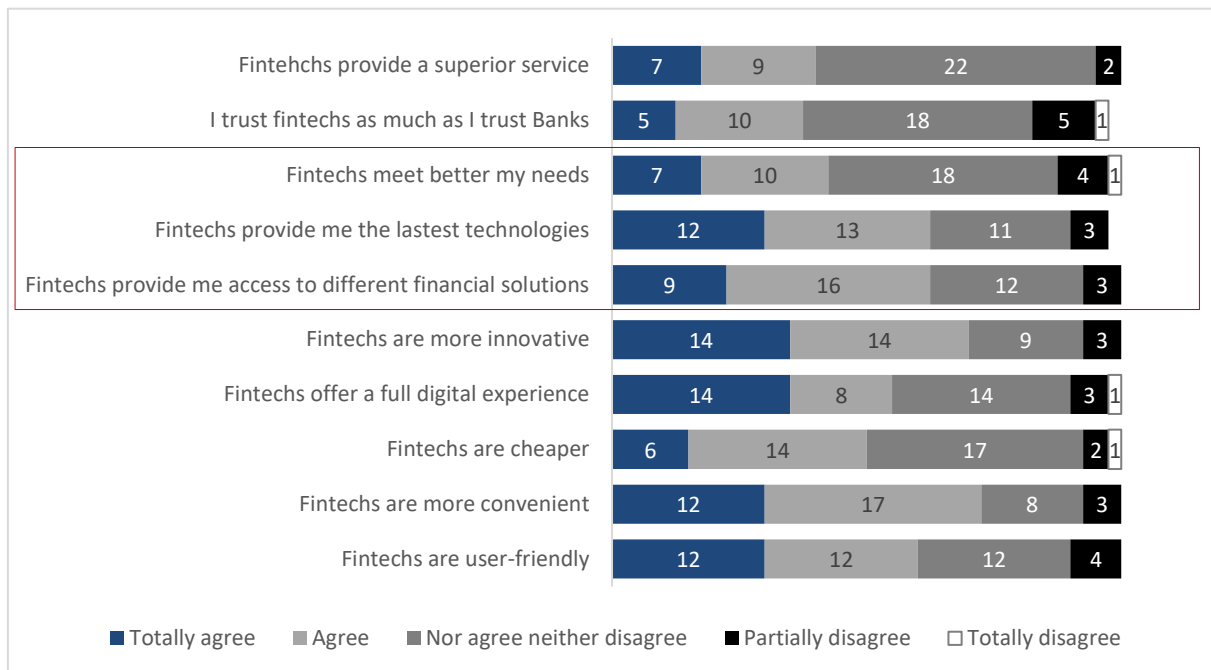
This exploratory research pointed out that fintechs were better able to meet customer's demands in terms of digitalization, convenience and technology. 25 out of 40 of the customers that completed the online survey have already used a Fintech service in the past. Payment and transference were the type of service mostly used, followed by Investments and Account Management.



Graph 11: Considering the definition provided earlier, have you ever used a fintech service?
Source: Online Survey with Spanish customers. Elaborated by the author

From the total public that completed the online survey, the overall perception of fintechs versus banks are:

- Fintechs are more innovative than banks (30 totally agree or agree out of 40)
- Fintechs are more convenient (29 totally agree or agree out of 40)
- Fintechs provide the latest technologies (25 totally agree or agree out of 40)
- Fintechs offer different financial solutions (25 totally agree or agree out of 40)
- Fintechs offer a complete digital experience (22 totally agree or agree out of 40)
- Fintechs are easier to use (24 totally agree or agree out of 40)



Graph 12: According to your experience, how would you evaluate Fintechs against banks in the following attributes?

Source: Online Survey with Spanish customers. Elaborated by the author.

The interview with customers indicated similar findings. Customers mentioned that they feel satisfied or relatively satisfied with their banks. However, all of them also stated that fintechs hold competitive advantages such as convenience, personalization, better user experience, agility, efficiency, providing a superior and more innovative service when compared to banks.

The perspective of banking professionals corroborates with the insights above. Those that have used a Fintech service believed that they provided a superior and easier services compared to banks and that they are more innovative.

Indeed, a recent study from KPMG (Fintech, la innovación a servicio del cliente, 2017) concluded that fintechs have been the main driver of digitalization of traditional banks. They also mention that fintechs have emerged due to their ability to address socio-cultural changes and understand customer's needs, incorporating these insights to develop their business models.

"las entidades bancarias intentan ser innovadoras, pero cuentan con grandes estructuras heredadas que les restan flexibilidad y que dificultan y ralentizan su proceso de transformación digital"

"Banking entities try to be innovative, but they have large inherited structures that reduce their flexibility and slow down their digital transformation process"

- KPMG (Fintech, la innovación a servicio del cliente, 2017).

- **Analysis:**

The exploratory research showed that this proposition seems to make sense. As consequence of the global financial crisis of 2008, banks saw their capacity to innovate and deal with social trends weakened due to their reduced reputation and strong regulatory pressure.

In the past 10 years, customers changed significantly, a new class of digital savvy youngers arose as customers. They searched for convenience, digitalization and technologies that could make their lives easier. The online survey and interviews highlighted the search for innovation, convenience and latest technologies as a source of differentiation.

It seems that banks have failed to anticipate these trends, giving room to fintechs to emerge. They better met customers demands and helped to institutionalize a new manner to make business which became widely accepted and endorsed, leading banks to forge a competition around technology and innovation.

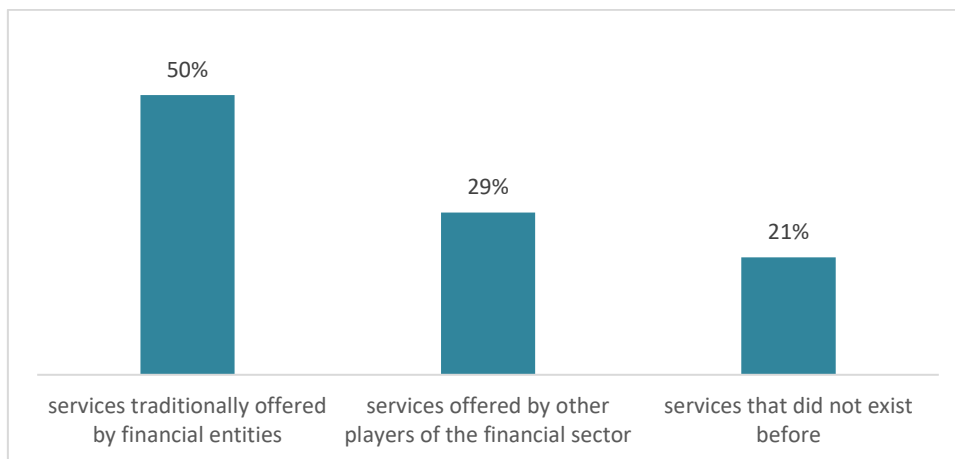
6.4 Proposition 4: Fintechs do not fall into the classification of innovative disruption.

This proposition is grounded on the **innovative disruption theory**. This research assessed two elements of the theory: serve overlooked markets (low-entry or up-tapped markets) and improved their quality over time to target mainstream customers.

- **Serve overlooked markets:**

According to the theory, incumbents are consistently improving their current products and process to keep mainstreams and top customers satisfied. It gives a room to new entrants to serve overlooked segments (low entry or up-tapped), starting a disruption process (Christensen, Raynor and McDonald, 2015).

However, fintech professionals said that their companies target general customers (B2B and B2C) of the med and high end ranges, competing directly with banks. In fact, a recent study from KPMG (Fintech, la innovación a servicio del cliente, 2017) corroborates with these findings. As displayed by the graph 13, the study shows that almost 70% of the Spanish fintechs have services also offered by traditional banks or other financial players.



Graph 13: Field of actuation of the Fintechs

Source: KPMG. Fintech, la innovación a servicio del cliente, 2017. Elaborated by the author.

- **Improved quality over time:**

The theory states that disruptors entry the market with inferior value propositions and, over time, improve the quality of their services to move up. When they reach the mainstream customers, the disruption process is concluded.

As mentioned earlier, the customer general perception of fintechs is that they provide a superior service in terms of technology, personalization, convenience and digitalization. From the fintechs professionals point of view, fintech's main competitive advantage are innovation, digital expertise, technology, agility, user centric approach, convenience and flexibility. The banking professionals mentioned similar attributes such as innovation, technology and price.

The ex-director of technology and innovation of Santander in Spain and more than 30 years of experience in the banking sector interviewed for the purpose of this dissertation also agrees with the rationale. According to him, Fintechs does provide a superior offer. However, they are single-products, being able to meet specific needs. Banks, in contrast, provide a full offer. This way, he believed in the cooperation between fintechs and banks.

- **Analysis:**

This exploratory research showed that fintechs do not fall into the category of disruption. Therefore, this proposition seems to make sense. The results indicated that fintechs target usual bank customers and provide superior services.

6.5 Proposition 5: Fintechs are driving the evolution of the banking industry.

This proposition was grounded on the **industry evolution**. The literature defends that industries follow a lifecycle pattern from birth to decline but that some forces can regenerate the cycle. Two main elements of the theory were exploratorily assessed by this research: technology and innovation as driven forces and evidences of industry lifecycles.

- Technology and innovation as driven forces behind fintechs

According to the literature, technology and innovation have profound effect on industry environments, driving its evolution. They are considered a catalyst for change because they alter the structure and functioning of an industry.

In the context of this master dissertation, fintechs personify the combination of technology and innovation. The crisis created a prosperous environment that allowed fintechs to flourish. Fintechs emerged thanks to technological progress and their innovative ability that were put together to offer convenient, user friendly and digital services to the overall public, competing directly with banks from a product point of view.

Indeed, all parties assessed (customers, banks and fintechs professionals) recognized the innovativeness and technological abilities of fintechs. As mentioned earlier in the chapter 4 (Fintechs), fintech's main characteristics are information-based, digital and financial innovation.

This suggests that fintechs combine two powerful forces capable of reshaping and transforming the industry's dynamics. They created and institutionalized a new manner to make business which became widely accepted and endorsed, evolved the industry and pushed banks to enhance their digital offer, optimize their processes and innovate (either by their own means or by incorporation or partnering with fintechs).

- Evidences of industry lifecycle and regeneration

The literature states that industries evolve from maturity to decline. They emerge with the deployment of an innovation (introduction) which is then imitated by other players (growth). The maturity is reached when the numbers of players reduces due to a “*shake out*” that leads to consolidation and, finally, the decline phase. According to Klepper & Graddy (1990), only the most efficient firms survive in the long run which is why the number of entrants decline and the industry stay in equilibrium.

On one hand, the crisis of 2008 altered the industry’s dynamics, triggering a “*shake out*” and consolidation process through merges and acquisitions. The reduction in the number of players is a typical characteristic of the maturity stage. As we have seen in the chapter 3 (Banking Industry), the number of banks and financial institutions have drastically fallen in Spain since 2007 (Statista, 2016).

“El número de entidades participantes se ha reducido a menos de la mitad desde 2008, representando un similar porcentaje de los activos del sector, más del 85%.”

“The number of participating entities has been reduced to less than half since 2008, representing a similar percentage of the sector's assets, more than 85%.”

- **Accenture Strategy, 2016.**

On the other hand, the crisis stimulated the emergence of fintechs. The number of new companies founded on a yearly basis increased and found a peak between 2012 and 2014. They seemed to have reached a stability, with fewer start-ups being created from 2014 onwards (Deloitte, 2017).

These findings suggest the banking industry was in growth phase before the crisis. The environment was characterized by a large number of players and a very fragmented market. However, the crisis changed this environment, triggering a “*shake out*” which resulted in the consolidation and the drastic reduction in the number of players, a traditional sign of the maturity phase.

Some years later, this scenario was followed by a rise in the number of fintechs. They personified technology and innovation, powerful forces capable of driving change and altering the dynamic of the industry. In this context, fintechs might have provoked a regeneration of the industry lifecycle, returning to the growth phase.

- Analysis

This exploratory research suggests that fintechs have been driving the evolution of the banking industry in the past few years. It seems that they have regenerated the industry lifecycle, returning to the growth phase which experiments an increase in the number of players, more specifically fintechs, that compete directly with traditional banks.

These findings also indicate that fintechs have the power to provoke changes and alter the dynamics of the banking industry due to the combination of two important forces: technology and innovation. Fintechs personify these forces and have been shaping a new stage of the industry evolution, forcing banks to innovate, invest, incorporate or partner with fintechs to remain competitive.

6.6 Conclusion

Taking all into consideration, this exploratory research helps to explain, under an academic basis, the current Spanish banking sector and the rise of fintechs. It found out that four propositions seem to make sense, providing a path for future researches and deeper investigations.

- **Proposition 1:** Spanish banks are relatively homogeneous and seek legitimization.
- **Proposition 3:** Recently, banks have failed to innovate, not addressing latent social trends and giving room for new competitors.
- **Proposition 4:** Fintechs do not fall into the into the classification of innovative disruption.
- **Proposition 5:** Fintechs are driving the evolution of the banking industry.

The results suggest that fintechs are not disruptors, according to the definition of disruptive innovation created by Christensen. Indeed, as mentioned in previous chapters, fintechs have been part of the banking sector history, providing technology and solutions for the financial institutions.

The change took place after the crisis when fintechs saw an opportunity to target the general public and meet their needs in terms of digitalization, convenience and price. At the same time, banks were too busy dealing with the financial crisis, reviewing their internal processes to comply with the new regulatory scenario.

Thus, banks seem to have failed to innovate and address the latest social trends. One evidence is that customers perceived banks as too homogeneous, not being able to recognize banks that hold a competitive advantage. Hence, the general perception is that banks are not innovative and do not invest sufficiently in technology and innovation.

In this context, fintechs emerged, targeting the general public. They started to compete directly with banks, offering superior service. Two important signs that they are not disruptors. In contrast, they have been driving the industry to a new path, institutionalizing a new manner of banking business.

7. CONCLUSION AND RECOMMENDATION

This master dissertation aimed to understand the rise of the fintechs in the banking industry with special focus on the Spanish market under an academic basis. The intention was to discuss if fintechs play a disruptive force or if they are driving the industry evolution.

Generally speaking, digitalization and technology have allowed the development of new business models across industries. New entrants have been challenging incumbents due to their low-cost operations, digital and connected offer that alter the dynamics of an industry, imposing a different way to compete within an existing business (Porter & Heppelman, 2014).

The banking sector has witnessed the emergence of the fintechs since 2008. FinTechs are very diversified in terms of technologies and business models, but they share some characteristics such as technology, innovation, digitalization, customer centricity and their ability to partner with other companies to gain new capabilities. They have been competing directly with banks, proving superior services (Caria, 2017).

However, the marriage of fintechs with the banking industry have a long history, dating back to the 1886 when technology started to be applied to financial services. The literature suggests that fintechs are imbedded in the evolution of banking sector. The historical review of the banking sector corroborates on that point, showing that technology is inherent to its activity and evolution (Arner, Barberis & Buckley, 2015).

In this sense, this master dissertation intended to understand the rise of fintechs based on an academic basis, taking into account reputable theories. Even though theories have limitations and gaps, they provide a logical conceptual framework that had been subject to extensive validation methods such as synthesis, hypothesis and tests among others (Sridhar, 2014).

Therefore, five theories were used in order to capture the current banking scenario, help interpreting actions under a broader context. Each one of these theories generated a proposition formulated to asses fintech *phenomenon* and their impact on the industry and the banks behavior.

Given the nature of the problem, an exploratory qualitative research was chosen. Distinct research methods such as documentary analysis, online survey, online questionnaire, semi and

structured interviews were blended in order to gather a holistic view of the phenomenon from the perspective of the different stakeholders: customers, banking and fintech professionals.

The findings suggest that reputation is crucial for the banking industry, being the main source of legitimacy. It is considered as one of the most important assets of the financial institutions because it grants confidence and reliability over the customers and other actors' perspective. Additionally, it seems that there is a general perception that Spanish banks are very homogeneous, evidencing the existence of isomorphic forces arisen from the external environment.

In this context, even though banks have abundant resources (people, skills, technology, financial means, among others) and have been investing in technological developments, it seems that such investment have not produced an innovation neither a differentiation factor. The research indicates that Spanish banks lack differentiation among themselves, failing to deploy their internal capabilities to generate a sustainable competitive advantage.

One possible explanation is the outcomes triggered by the global financial crisis of 2008, considered a turning point. Being too busy recovering from the crisis and dealing with the strengthen regulation, banks failed to monitor and anticipate emerging social and technological trends, giving room to fintechs to rise.

Hence, the crisis generated a very positive environment that allowed fintechs to flourish: banks' weakened reputation, reduced ability to innovate and invest in technology and availability of talented labor force (dismissed from banks) and a favorable cultural and social scenario (large penetration of smartphones and internet, eager for technology and digitalization).

Therefore, fintechs emerged. Many start-ups were created on a yearly basis, reaching a peak around 2012 and 2014. They better met customers' demands in terms of digitalization, personalization, customer centricity and flexibility, for example.

Nevertheless, this research indicates that fintechs are not disruptors because they target usual bank customers (competing directly with banks) and provide superior services, according to the opinion and perception of the stakeholders interviewed.

In contrast, findings suggest that fintechs have been driving the evolution of the banking industry in the past few years, as of the industry evolution literature. It seems that they have

regenerated the industry lifecycle, returning to the growth phase which experiments an increase in the number of players, more specifically fintechs.

Fintechs have been changing and altering the dynamics of the banking industry due to the combination of two important forces: technology and innovation. They personify these forces and have been shaping a new stage of the industry evolution. They institutionalized a new manner to make business which became widely accepted and endorsed, leading banks to forge a competition around technology and innovation either investing directly, incorporating or partnering with fintechs to remain competitive.

This master dissertation makes important contributions not only for the academy but also for the general management of both financial institutions and fintechs. There are many papers and articles written about fintechs, but very few academic researches and analysis supported by a strong academic basis.

The results collaborate to explain the phenomenon of fintechs in Spain and their impact on the banking industry. However, a deeper exploration of the topic is recommended to test and validate the hypothesis arisen by the conclusions of the project.

Additionally, the findings of this researched received a greater influence on the customer opinion although other stakeholders were also assessed. The same rationale should be applied to fintechs, since the research concentrated on the fintechs that offer services to the overall public, more specifically consumers. Thus, a deeper assessment and more equilibrated research is recommended as well as investigation of the extension of these findings to other type of fintechs, stakeholders and markets.

Lastly, the findings were also grounded on the definitions and concepts provided by the theories studied. For example, disruption followed the definition provided by the Innovation Disruption theory formulated by Christensen while the concept evolution was based on the literature of industry evolution firstly formulated by Klepper. Thus, new researches are suggested considering other theories and frameworks to check the veracity of the findings.

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APPENDIX

Appendix 1: Semi-structured interview or online questionnaire with banking professionals

1. ¿Tu trabajas o trabajaste en algún banco constituido en España?

- Si
- No

2 ¿Cuál banco trabajas o trabajaste? Elija todas las opciones que necesites.

- La Caixa
- Santander
- Sabadell
- BBVA
- Bankia
- BNP Paribas
- Deutsche Bank
- Evo Bank
- ING
- Bilbao Vizcaya
- CitiBank
- Otro

3 ¿En tu opinión, los bancos españoles invierten en tecnología e innovación?

- Invierten demasiado
- Invierten
- Deberían invertir más

4 En tu opinión, ¿por qué los bancos buscan invertir en tecnología e innovación?

- Para lograr una ventaja competitiva en relación a competencia
- Para mantener y fidelizar su base de clientes

- Para atraer nuevos clientes
- Para ser más ágiles y eficientes, mejorando los procesos internos
- Para competir con las Fintechs y otros players que están entrando en el mundo de la banca

5 Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características?

	Muy similar	Similar	Parcialmente similar	Diferente	Muy diferente
Productos y servicios generales					
Experiencia dentro de la sucursal (in branch experience como diseño, etc.)					
Asistencia al cliente en sucursales					
Oferta digital					
Conveniencia					
Precio					
Tecnología general					
Velocidad para procesar transacciones y pagos					

Soluciones fáciles y convenientes					
Tecnologías centradas en el usuario					
Marca y marketing					
Posicionamiento en el mercado					

6 En tu opinión, ¿cuáles razones mejor explican por qué los bancos comparten similitudes? Ordene.

- Los bancos siguen los líderes de mercado, volviéndose similares
- Los clientes buscan consistencia entre los bancos
- Hay un intercambio muy grande de profesionales y empleados entre los bancos, promoviendo practicas comunes
- Hay asociaciones de la banca que promueven *best practices* y establecen políticas similares
- Los órganos reguladores nos imponen manejas semejantes de trabajo
- Otros

7 En su opinión, ¿cómo un banco puede diferenciarse de los demás? ¿Qué factor impulsaría su diferenciación? (pregunta abierta)

8 En tu opinión, ¿un banco que se diferencie demasiado de la competencia...Elija todos los que necesites – cuanto estás de acuerdo con las frases abajo

- No tendría éxito, pues los clientes buscan consistencia
- Sería rechazado por los profesionales
- Sería rechazado por los grupos de la banca
- Sería rechazado por los órganos reguladores

Las siguientes preguntas van a hablar sobre fintechs. Fintech es tecnología aplicada a los servicios financieros. A los fines de esta encuesta, los fintechs son definidos como empresas alternativas a los Bancos que también ofrecen soluciones financieras mediante la tecnología y digitalización. Algunos ejemplos de fintechs son PayPal, TransferWise, por ejemplo.

9 Considerando la definición proporcionada anteriormente, ¿alguna vez ha usado un servicio fintech?

- Si
- No

10 De acuerdo con tu opinión o experiencia, ¿cómo evaluaría los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos?

	5	4	3	2	1
	Totalmente de acuerdo	De acuerdo	Ni acuerdo ni desacuerdo	Parcialmente en desacuerdo	Totalmente en desacuerdo
Fintechs proporciona un servicio superior					
Confío tanto en fintechs como confío en bancos					
Fintechs cumple mejor mis necesidades					
Fintechs me proporciona las últimas tecnologías					
Fintechs me da acceso a diferentes soluciones financieras					
Fintechs son más innovadores					
Fintechs ofrece una experiencia digital completa					
Fintechs son más baratos					
Fintechs son más convenientes					
Fintechs son fáciles de usar					

11 ¿Cómo evaluaría la legitimidad y el conocimiento de fintechs al proporcionar soluciones financieras en comparación con los bancos?

	Superior a los bancos	Similar a los bancos	Inferior a los bancos
Creo que los fintechs tienen conocimiento financiero			
Creo que los fintechs brindan consejos sabios y expertos			
Creo que fintechs proporciona productos y servicios confiables			
Creo que los fintechs están bien regulados			
Creo que los fintechs son actores legítimos en el desarrollo y suministro de soluciones financieras			

12 En su opinión, ¿cuáles son las principales ventajas competitivas de fintechs en comparación con los bancos? (pregunta abierta)

13 Por qué las personas no considerarían usar un servicio de Fintech? Clasifíquelos de 5 a 1, siendo 5 la razón más importante y 1 la razón menos importante.

- Los bancos ya cumplen con las necesidades financieras de las personas
- Las personas no confían en fintechs
- Las personas no creen que fintechs tengan el conocimiento suficiente para ofrecer servicios financieros
- Las personas creen que los Fintechs no son jugadores legítimos para proporcionar servicios financieros
- Las personas prefieren asistencia presencial

Appendix 2: Raw data - online questionnaire with banking professionals

¿Tu trabajas o trabajaste en algún banco constituido en España?	Si	Si	Si	Si
¿Cuál banco trabajas o trabajaste? Elija todas las opciones que necesites.	Santander	Santander	La Caixa	BBVA
¿En tu opinión, cuanto los bancos españoles invierten en tecnología e innovación?	Deberían invertir más	Deberían invertir más	Invierten lo necesario	Invierten lo necesario
En tu opinión, ¿por qué los bancos invierten en tecnología e innovación? Elija todos los que necesite.	Para lograr una ventaja competitiva en relación a competencia, Para atraer nuevos clientes	Para mantener y fidelizar su base de clientes, Deberían invertir más, Para competir con las Fintechs y otros players que están entrando en el mundo de la banca	Para ser más ágiles y eficientes, mejorando los procesos internos, Para competir con las Fintechs y otros players que están entrando en el mundo de la banca	Para lograr una ventaja competitiva en relación a competencia, Para ser más ágiles y eficientes, mejorando los procesos internos, Para competir con las Fintechs y otros players que están entrando en el mundo de la banca
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Productos y servicios generales]	Muy similar	Similar	Muy similar	Similar

Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Experiencia dentro de la sucursal (in branch experience como diseño, etc.)]	Muy similar	Similar	Muy similar	Similar
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Asistencia al cliente en sucursales]	Muy similar	Similar	Muy similar	Muy similar
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Oferta digital]	Similar	Muy similar	Similar	Similar
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Comodidad]	Similar	Similar	Similar	Muy similar
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Precio]	Similar	Muy similar	Muy diferente	Similar
Los bancos comparten características similares entre sí. En términos de	Similar	Similar	Similar	Parcialmente similar

similitud, ¿en qué medida evaluaría las siguientes características? [Tecnología general]				
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Velocidad para procesar transacciones y pagos]	Similar	Similar	Similar	Parcialmente similar
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Soluciones fáciles y convenientes]	Similar	Similar	Parcialmente similar	Parcialmente similar
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Tecnologías centradas en el usuario]	Parcialmente similar	Similar	Similar	Similar
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características? [Marca y marketing]	Parcialmente similar	Parcialmente similar	Parcialmente similar	Parcialmente similar
Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características?	Diferente	Similar	Diferente	Similar

[Posicionamiento en el mercado]				
En tu opinión, ¿cuáles razones mejor explican por qué los bancos comparten similitudes? Elijas todos los que necesites.	Los bancos siguen los líderes de mercado, volviéndose similares, Hay un intercambio muy grande de profesionales y empleados entre los bancos, promoviendo practicas comunes	Los bancos siguen los líderes de mercado, volviéndose similares, Hay asociaciones de la banca que promueven best practices y establecen políticas similares, Los órganos reguladores nos imponen manejos semejantes de trabajo	Los bancos siguen los líderes de mercado, volviéndose similares	Los bancos siguen los líderes de mercado, volviéndose similares
En tu opinión, ¿cómo un banco puede diferenciarse de los demás? ¿Qué factor impulsaría su diferenciación?	Serviços mais personalizados e tecnologia	Innovación	CEO	Inovacion de productos
De acuerdo con tu opinión o experiencia, ¿cómo evaluaría los siguientes frases en cuanto a bancos que se diferencian demasiado de la competencia? [No tienen éxito, pues los clientes buscan consistencia]	Totalmente en desacuerdo	Parcialmente de acuerdo	Totalmente en desacuerdo	Parcialmente en desacuerdo

De acuerdo con tu opinión o experiencia, ¿cómo evaluaría los siguientes frases en cuanto a bancos que se diferencian demasiado de la competencia? [Son rechazados por los profesionales]	Totalmente en desacuerdo	Parcialmente de acuerdo	Totalmente en desacuerdo	Parcialmente de acuerdo
De acuerdo con tu opinión o experiencia, ¿cómo evaluaría los siguientes frases en cuanto a bancos que se diferencian demasiado de la competencia? [Son rechazados por los grupos de la banca]	Totalmente en desacuerdo	Parcialmente de acuerdo	Totalmente de acuerdo	Parcialmente de acuerdo
De acuerdo con tu opinión o experiencia, ¿cómo evaluaría los siguientes frases en cuanto a bancos que se diferencian demasiado de la competencia? [Son rechazado por órganos reguladores]	Totalmente en desacuerdo	Parcialmente de acuerdo	Totalmente en desacuerdo	Ni acuerdo ni desacuerdo
Considerando la definición proporcionada abajo, ¿alguna vez has usado un servicio fintech?	No	Sí	Sí	Sí
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Las Fintehchs proporcionan un servicio superior]	Parcialmente en desacuerdo	De acuerdo	Totalmente de acuerdo	Totalmente de acuerdo

De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Confío tanto en las fintechs como en los bancos]	Parcialmente en desacuerdo	Parcialmente en desacuerdo	De acuerdo	Ni acuerdo ni desacuerdo
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Las Fintechs cumple mejor mis necesidades]	Ni acuerdo ni desacuerdo	Parcialmente en desacuerdo	Totalmente de acuerdo	De acuerdo
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Las Fintechs me proporcionan las últimas tecnologías]	De acuerdo	Parcialmente en desacuerdo	Totalmente de acuerdo	De acuerdo
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Las Fintechs me dan acceso a diferentes soluciones financieras]	De acuerdo	De acuerdo	Totalmente de acuerdo	De acuerdo
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Las Fintechs son más innovadoras]	De acuerdo	Ni acuerdo ni desacuerdo	Totalmente de acuerdo	Totalmente de acuerdo
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes	Parcialmente en desacuerdo	Parcialmente en desacuerdo	De acuerdo	Totalmente de acuerdo

afirmaciones? [Las Fintechs ofrece una experiencia digital completa]				
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Las Fintechs son más baratas]	Ni acuerdo ni desacuerdo	De acuerdo	Totalmente de acuerdo	Ni acuerdo ni desacuerdo
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Las Fintechs son más cómodas]	Ni acuerdo ni desacuerdo	Parcialmente en desacuerdo	Totalmente de acuerdo	De acuerdo
De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones? [Las Fintechs son fáciles de usar]	De acuerdo	Parcialmente en desacuerdo	Totalmente de acuerdo	De acuerdo
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Creo que las fintechs tienen conocimiento financiero]	Inferior a los bancos	Inferior a los bancos	Similar a los bancos	Similar a los bancos
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Las Fintechs me dan acceso a diferentes soluciones financieras]	Inferior a los bancos	Similar a los bancos	Superior a los bancos	Superior a los bancos
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Creo	Similar a los bancos	Inferior a los bancos	Superior a los bancos	Inferior a los bancos

que las fintechs proporcionan productos y servicios confiables]				
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Creo que las fintechs están bien reguladas]	Inferior a los bancos	Inferior a los bancos	Similar a los bancos	Similar a los bancos
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Creo que las fintechs son actores legítimos en el desarrollo y suministro de soluciones financieras]	Similar a los bancos	Inferior a los bancos	Superior a los bancos	Superior a los bancos
En su opinión, ¿cuáles son las principales ventajas competitivas de las fintechs en comparación con los bancos?	Tecnología innovadora e troca de experiências	Precio	CEO	Inovacion
En tu opinión, ¿por qué alguien no consideraría usar un servicio de Fintech? Elija todos los que necesite.	Falta de confianza, los fintechs no son reconocidos por el mercado	Falta de confianza, los fintechs no son reconocidos por el mercado, Los Fintechs no son jugadores legítimos para proporcionar servicios financieros, Las fintechs son digitales y las personas	Falta de confianza, los fintechs no son reconocidos por el mercado	Falta de confianza, los fintechs no son reconocidos por el mercado, Las fintechs son digitales y las personas prefieren asistencia presencial

		prefieren asistencia presencial		
¿Cuál es tu edad?	Entre 36 a 45	Entre 26 a 35	Entre 26 a 35	Entre 18 a 25

Appendix 3 : Online questionnaire with fintech professionals**1 ¿Tu trabajas o eres socio de alguna Fintech constituida en España?**

- Si
- No

2 ¿Cuál es el nombre de la Fintech? (*open question*)**3 ¿Qué tipo de servicio ofrece la fintech que trabajas o eres socio? Elija todos los que necesite.**

- Pagos
- Inversiones
- Financiamiento personal
- Préstamos de crédito
- Crowdfunding
- Seguro
- Gestión de cuentas
- Soluciones para scoring y prevención de fraudes
- Software y tecnologías de gestión financiera
- Otros

4 ¿Cuál es el target de tu Fintech? Elija todos los que necesite.

- Bancos
- Empresas
- Consumidores en general

5 ¿Cuál segmento mejor se encuadra al target de tu Fintech?

- Gama alta
- Gama media
- Gama baja

6 De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos?

	5	4	3	2	1
	Totalmente de acuerdo	De acuerdo	Ni acuerdo ni desacuerdo	Parcialmente en desacuerdo	Totalmente en desacuerdo
Fintechs proporciona un servicio superior / mejor calidad					
Confío tanto en fintechs como confío en bancos					
Fintechs cumple mejor mis necesidades					
Fintechs me proporciona las últimas tecnologías					
Fintechs me da acceso a diferentes soluciones financieras					
Fintechs son más innovadores					
Fintechs ofrece una experiencia digital completa					
Fintechs son más baratos					
Fintechs son más convenientes					
Fintechs son fáciles de usar					

7 ¿Cómo evaluarías la legitimidad y el conocimiento de fintechs al proporcionar soluciones financieras en comparación con los bancos?

	Superior a los bancos	Similar a los bancos	Inferior a los bancos
Creo que los fintechs tienen conocimiento financiero			
Creo que los fintechs brindan consejos sabios y expertos			
Creo que fintechs proporciona productos y servicios confiables			
Creo que los fintechs están bien regulados			

Creo que los fintechs son actores legítimos en el desarrollo y suministro de soluciones financieras			
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8 En tu opinión, ¿cuáles son las principales ventajas competitivas de fintechs en comparación con los bancos? (pregunta abierta)

9 Por qué las personas no considerarían usar un servicio de Fintech? Clasifíquelos de 5 a 1, siendo 5 la razón más importante y 1 la razón menos importante.

- Los bancos ya cumplen con las necesidades financieras de las personas
- Las personas no confían en fintechs
- Las personas no creen que fintechs tengan el conocimiento suficiente para ofrecer servicios financieros
- Las personas creen que los Fintechs no son jugadores legítimos para proporcionar servicios financieros
- Las personas prefieren asistencia presencial

10 ¿En tu opinión, cuales son las principales dificultades de una Fintech? (pregunta abierta)

Appendix 4: Raw Data - Online questionnaire with fintech professionals

¿Tu trabajas o eres socio de alguna Fintech constituida en España?	No	Si	No	Si
¿Cuál es el nombre de la Fintech?	Kantox	Zank	Fintastico	LoanBook
La Fintech fue creada hace ...	5 - 7 años	3 - 5 años	1 - 3 años	3 - 5 años
¿Qué tipo de servicio ofrece la fintech que trabajas o eres socio? Elija todos los que necesite.	Pagos	Inversiones	tripadvisor del fintech	Préstamos de crédito
¿Cuál es el target de tu Fintech? Elija todos los que necesite.	Bancos y instituciones financieras, Empresas (B2B)	Consumidores en general (B2C)	Empresas (B2B), Consumidores en general (B2C)	Empresas (B2B)
¿Cuál segmento mejor se encuadra al target de tu Fintech?	Gama alta, Gama media, Gama baja	Gama media	Gama media	Gama media
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintehchs proporcionan un servicio superior]	Totalmente de acuerdo	Totalmente de acuerdo	De acuerdo	Totalmente de acuerdo
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Confío	Parcialmente en desacuerdo	De acuerdo	Totalmente en desacuerdo	Ni acordio ni desacuerdo

tanto en las fintechs como en los bancos]				
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintechs cumple mejor mis necesidades]	Totalmente de acuerdo	Totalmente de acuerdo	De acuerdo	Totalmente de acuerdo
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintechs me proporcionan las últimas tecnologías]	Totalmente de acuerdo	Totalmente de acuerdo	De acuerdo	Totalmente de acuerdo
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintechs me dan acceso a diferentes soluciones financieras]	Totalmente de acuerdo	Totalmente de acuerdo	De acuerdo	Totalmente de acuerdo
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintechs son más innovadoras]	Totalmente de acuerdo	Totalmente de acuerdo	Totalmente de acuerdo	Totalmente de acuerdo

De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintechs ofrece una experiencia digital completa]	Totalmente de acuerdo	Totalmente de acuerdo	De acuerdo	Totalmente de acuerdo
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintechs son más baratas]	De acuerdo	De acuerdo	De acuerdo	Totalmente de acuerdo
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintechs son más cómodas]	Totalmente de acuerdo	Totalmente de acuerdo	De acuerdo	Totalmente de acuerdo
De acuerdo con tu opinión, ¿cómo evaluarías los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos? [Las Fintechs son fáciles de usar]	Totalmente de acuerdo	Totalmente de acuerdo	De acuerdo	Totalmente de acuerdo
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes	Inferir a los bancos	Superior a los bancos	Similar a los bancos	Similar a los bancos

aspectos [Creo que las fintechs tienen conocimiento financiero]				
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Las Fintechs me dan acceso a diferentes soluciones financieras]	Superior a los bancos	Superior a los bancos	Superior a los bancos	Superior a los bancos
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Creo que las fintechs proporcionan productos y servicios confiables]	Superior a los bancos	Inferir a los bancos	Superior a los bancos	Superior a los bancos
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Creo que las fintechs están bien reguladas]	Similar a los bancos	Inferir a los bancos	Superior a los bancos	Similar a los bancos
Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos [Creo que las fintechs son actores legítimos en el desarrollo y suministro de soluciones financieras]	Similar a los bancos	Superior a los bancos	Superior a los bancos	Superior a los bancos

En su opinión, ¿cuáles son las principales ventajas competitivas de las fintechs en comparación con los bancos?	experiencia digital, precios, transparencia	Rapidez	transparencia, uso de las tecnologías mas recientes, mejor ux y atencion al cliente	Rapidez, transparencia, innovación, orientadas al cliente, precio.
En tu opinión, ¿por qué alguien no consideraría usar un servicio de Fintech? Elija todos los que necesite.	Falta de confianza, los fintechs no son reconocidos por el mercado	Falta de confianza, los fintechs no son reconocidos por el mercado	Falta de confianza, los fintechs no son reconocidos por el mercado, Las fintechs son digitales y las personas prefieren asistencia presencial	No hay necesidad, los banco cumplen con la función financieras, Falta de confianza, los fintechs no son reconocidos por el mercado, Las fintechs son digitales y las personas prefieren asistencia presencial
En tu opinión, ¿cuales son las principales dificultades de una Fintech?	Marca / confianza, red de distribucion	Confianza	confianza y gastos en marketing	La cultura financiera en España es deficiente y los bancos las ningunean.
¿Cuál es tu edad?	Entre 36 a 45	Entre 36 a 45	Entre 26 a 35	Entre 46 a 55

Appendix 5: Online survey with customers

1. ¿Eres cliente de algún banco constituido en España? Por cliente, entienda tener una cuenta o cualquier otro tipo de producto, servicio o relacionamiento.

- Si
- No

2 ¿Qué banco eres cliente? Elija todas as opciones.

- La Caixa
- Santander
- Sabadell
- BBVA
- Bankia
- BNP Paribas
- Deutsche Bank
- Evo Bank
- ING
- Bilbao Vizcaya
- CitiBank
- Otro

3 ¿Cuál es tu banco principal? Por banco principal, entienda como el banco en el que concentra la mayoría de tus servicios, saldo y operaciones.

- La Caixa
- Santander
- Sabadell
- BBVA
- Bankia
- BNP Paribas
- Deutsche Bank
- Evo Bank

- ING
- Bilbao Vizcaya
- CitiBank
- Otro

4 ¿Qué razones explicarían mejor por qué tu eres cliente de ese banco y concentra tus operaciones? Elige las razones más importantes y clasifícalas del 1 al 8, siendo 8 la más importante y 1 la menos importante..

- El banco tiene una sólida reputación en el mercado
- El banco es ampliamente conocido en el mercado
- Puedo confiar y confiar en ello
- Los medios, mi familia y mis amigos recomendaron y avaluaron bien banco
- El banco se diferencia de la competencia
- El banco ofrece soluciones innovadoras
- El banco cobra tarifas y tarifas más bajas
- El banco está presente donde quiera que vaya, con una amplia red de sucursales y cajeros automáticos

5 ¿Cómo evaluaría la importancia de cada uno de estos elementos en su decisión de convertirse y permanecer como cliente de estos bancos?

	5	4	3	2	1
	Muy importa nte	Importa nte	Parcialme nte important e	Un poco importa nte	Nada importa nte
Reputación					
Familia y evaluación de amigos					
Rede de oficinas y sucursales					

Red de cajeros automáticos					
Internet banking					
Mobile banking					
Call Center					
Precios (tarifas y comisiones más baratas)					
Concesión de crédito					
Asistencia de mi gerente de relaciones y el personal de otras sucursales					
Productos y servicios innovadores					
Tecnologías diferenciadas y fáciles de usar					

6 Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características?

	Muy similar	Similar	Parcialmente similar	Diferente	Muy diferente
Productos y servicios generales					
Experiencia dentro de la sucursal (in branch experience como diseño, etc.)					

Asistencia al cliente en sucursales					
Oferta digital					
Conveniencia					
Precio					
Tecnología general					
Velocidad para procesar transacciones y pagos					
Soluciones fáciles y convenientes					
Tecnologías centradas en el usuario					
Marca y marketing					
Posicionamiento en el mercado					

7 En su opinión, ¿cómo un banco puede diferenciarse de los demás? ¿Qué factor impulsaría su diferenciación? (pregunta abierta)

8 ¿Alguna vez has escuchado el término "fintech"?

- Si
- No

Las siguientes preguntas van a hablar sobre fintechs. Fintech es tecnología aplicada a los servicios financieros. A los fines de esta encuesta, los fintechs son definidos como empresas alternativas a los Bancos que también ofrecen soluciones financieras mediante la tecnología y digitalización. Algunos ejemplos de fintechs son PayPal, TransferWise, por ejemplo.

9 Considerando la definición proporcionada anteriormente, ¿alguna vez ha usado un servicio fintech?

- Yes
- No

10 ¿Con qué frecuencia usas o usarías un servicio fintech? Elija la alternativa que más describe sus hábitos

- Casi nunca. Utilicé solo una o varias veces
- Algo frecuente. Usé un par de veces
- Frecuente. Fintechs han sido parte de mi rutina financiera.

11 ¿Consideraría usar un servicio fintech en los próximos 12 meses?

- Si
- No

- Este fintech me ofrece una experiencia digital completa

12 ¿Qué tipo de servicio usó o consideraría usar en el futuro? Elija todos los que necesite.

- Pagos
- Inversiones
- Financiamiento personal
- Préstamos de crédito
- Crowdfunding
- Seguro

13 De acuerdo con su experiencia, ¿cómo evaluaría los siguientes atributos de fintechs en comparación con el servicio brindado por los bancos?

	5	4	3	2	1
	Totalmente de acuerdo	De acuerdo	Ni acuerdo ni desacuerdo	Parcialmente en desacuerdo	Totalmente en desacuerdo
Fintechs proporciona un servicio superior					
Confío tanto en fintechs como confío en bancos					
Fintechs cumple mejor mis necesidades					
Fintechs me proporciona las últimas tecnologías					
Fintechs me da acceso a diferentes soluciones financieras					
Fintechs son más innovadores					
Fintechs ofrece una experiencia digital completa					
Fintechs son más baratos					
Fintechs son más convenientes					
Fintechs son fáciles de usar					

14 Comparado con los bancos, ¿qué tan superior considera a las fintechs en los siguientes aspectos?

	Superior a los bancos	Similar a los bancos	Inferior a los bancos
Creo que los fintechs tienen conocimiento financiero			
Creo que los fintechs brindan consejos sabios y expertos			
Creo que fintechs proporciona productos y servicios confiables			
Creo que los fintechs están bien regulados			
Creo que los fintechs son actores legítimos en el desarrollo y suministro de soluciones financieras			

15 En su opinión, ¿cuáles son las principales ventajas competitivas de fintechs en comparación con los bancos? (pregunta abierta)

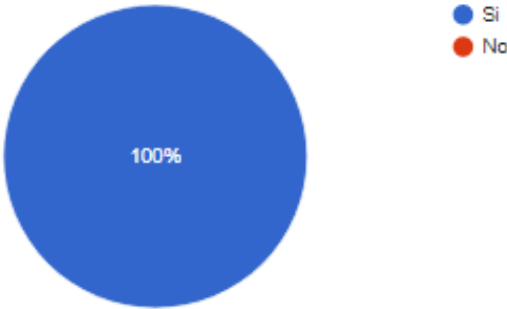
16 En tu opinión, ¿por qué alguien no consideraría usar un servicio de Fintech? Elija todos los que necesite.

- Mi banco ya cumple con mis necesidades financieras
- No confío en fintechs
- No creo que fintechs tenga el conocimiento suficiente para entrar en mi vida financiera
- Los Fintechs no son jugadores legítimos para proporcionar servicios financieros
- No soy un usuario digital, prefiero asistencia presencial

Appendix 6: Raw Data - Online survey with customers

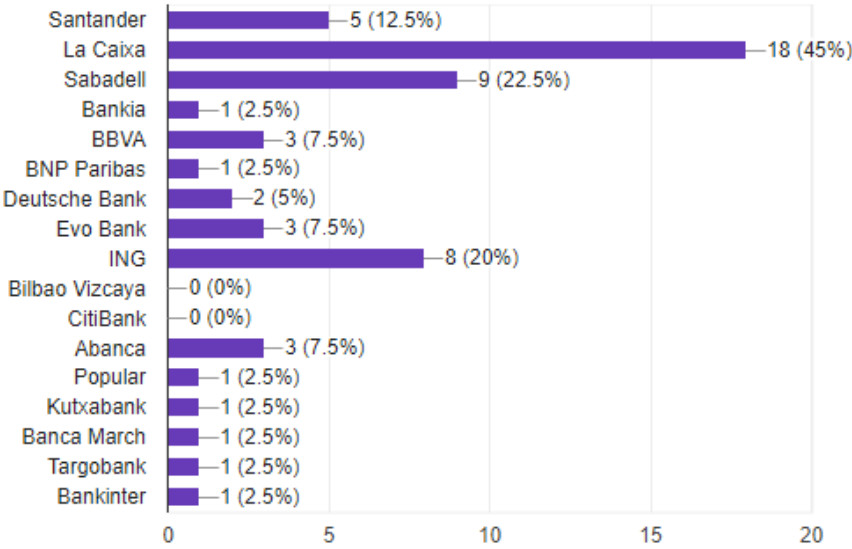
¿Eres cliente de algún banco constituido en España? Por cliente, entiéndase tener una cuenta o cualquier otro tipo de servicio financiero activo.

40 responses



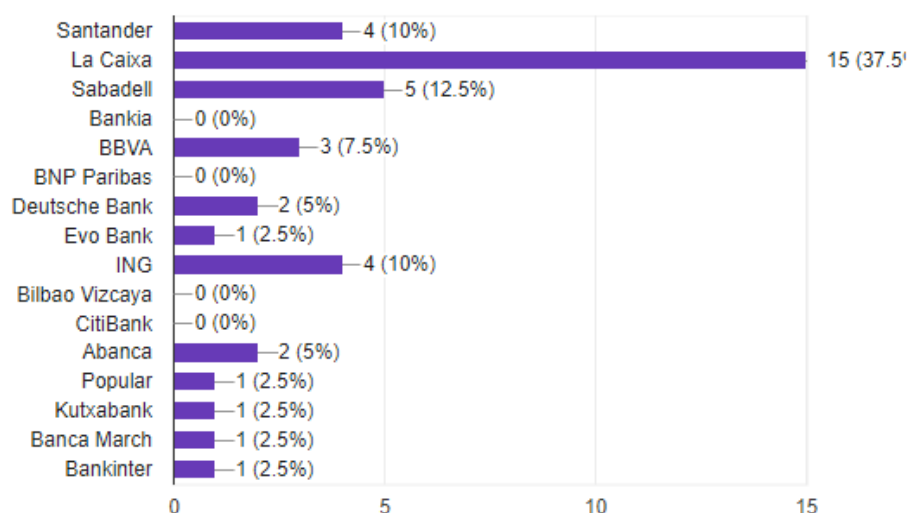
¿De qué banco eres cliente? Elige todas las opciones.

40 responses

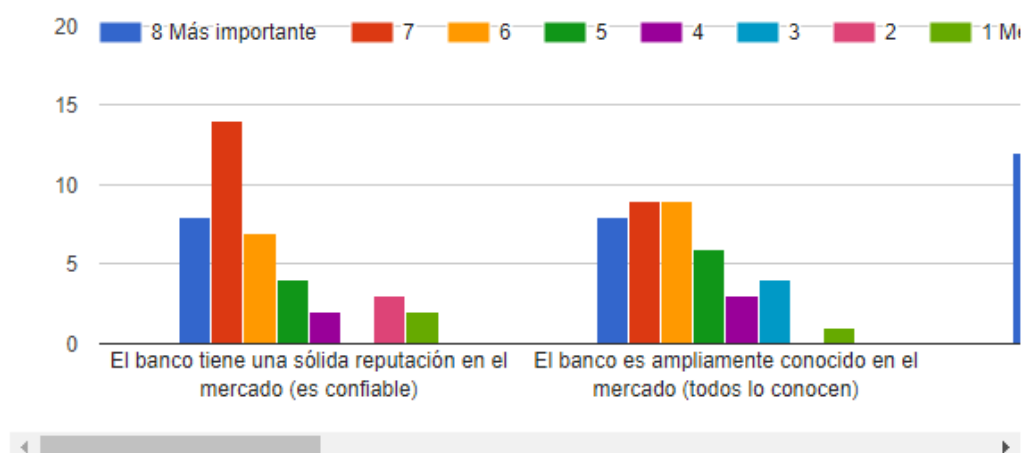


¿Cuál es tu banco principal? Por banco principal, entiéndase como el banco en el que concentras la mayoría de tus servicios, saldos y operaciones.

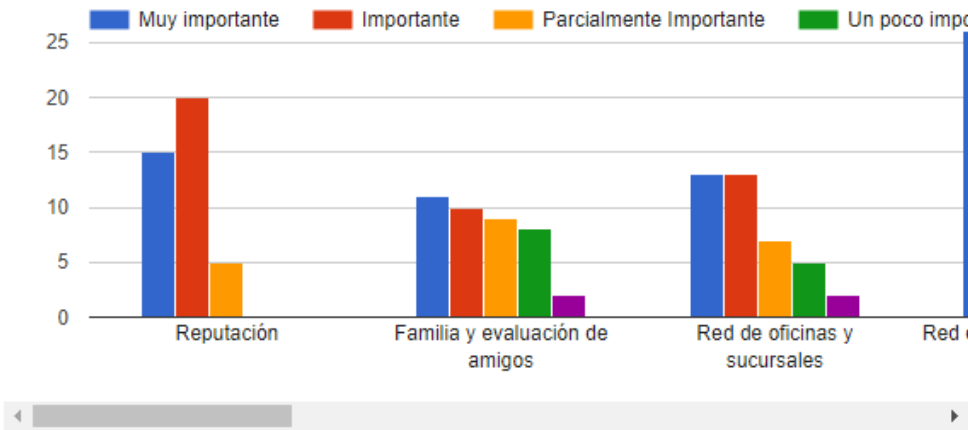
40 responses



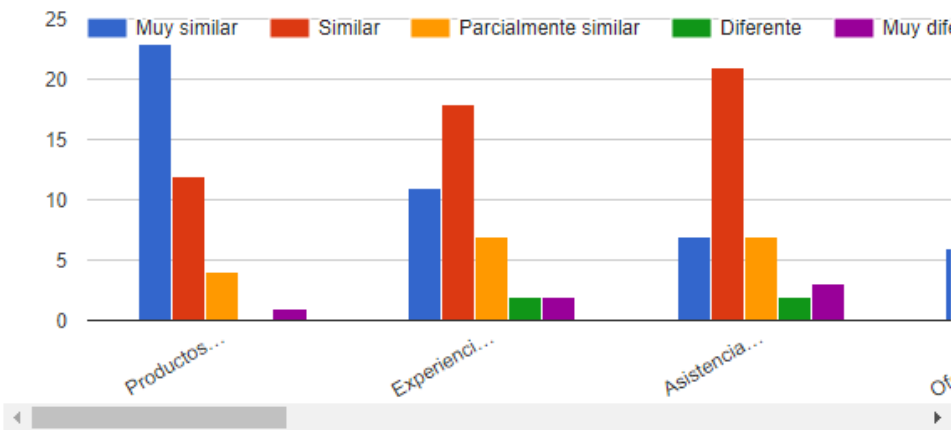
¿Qué razones explicarían mejor por qué eres cliente de ese banco en el que concentras tus operaciones? Elige las razones más importantes y clasifícalas del 1 al 8, siendo 8 la más importante y 1 la menos importante.



¿Cómo evaluaría la importancia de cada uno de estos elementos en su decisión de convertirse y permanecer como cliente de un banco?



Los bancos comparten características similares entre sí. En términos de similitud, ¿en qué medida evaluaría las siguientes características?



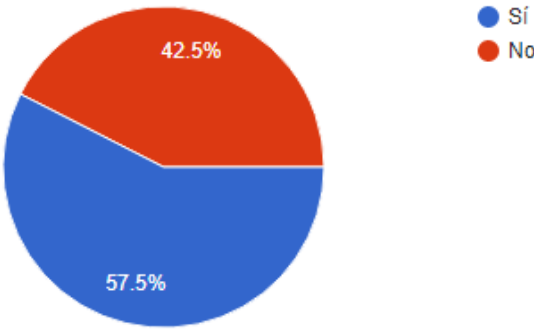
En tu opinión, ¿cómo un banco puede diferenciarse de los demás? ¿Qué factor impulsaría su diferenciación?

40 responses

Innovación
Uno que disponga de una banca electrónica desde donde se pueda hacer cualquier tipo operación con cualquiera de tus cuentas o depósitos, y que no sirva solo para contratar productos, ver las comunicaciones, transferencias o traspaso y no entre todas tus cuentas.
Pensar no cliente satisfeito e não no faturamento.
La simplicidad
Siendo una teleco
La relación con el cliente y servicios más personalizados para buscar beneficios claros
Tecnología y mejores tarifas
Eliminando comisiones o analizando y escuchando a los usuarios
Que me de la sensación de que no se aprovecha de la gente. Lo impulsaría al generar confianza y transparencia a través de la marca y de las sucursales.
Tecnología sencilla y accesible

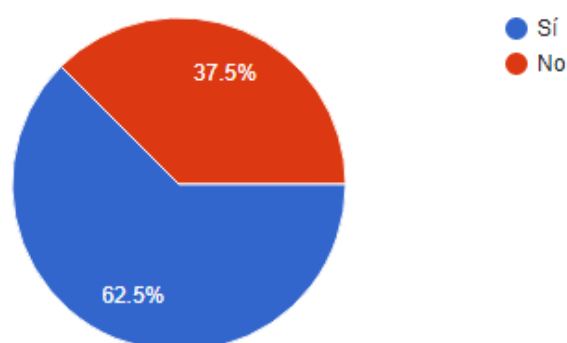
¿Alguna vez has escuchado el término "fintech"?

40 responses



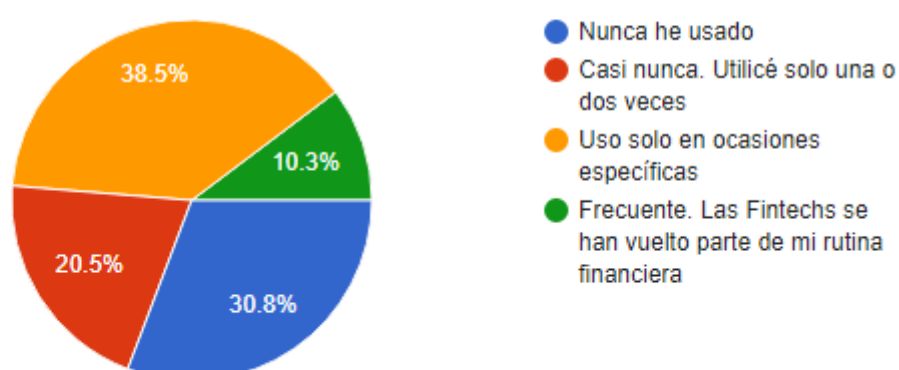
Considerando la definición proporcionada abajo, ¿alguna vez has usado un servicio fintech?

40 responses

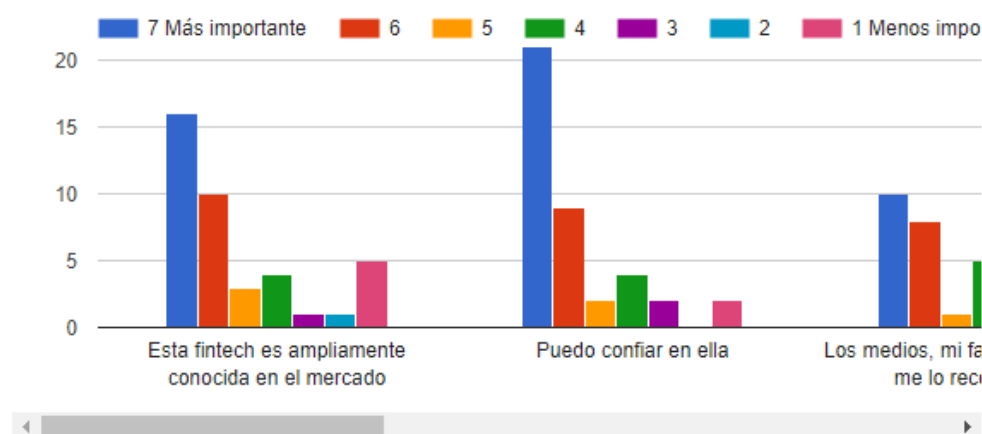


¿Con qué frecuencia usas o usarías un servicio fintech? Elige la alternativa que más describa sus hábitos

39 responses

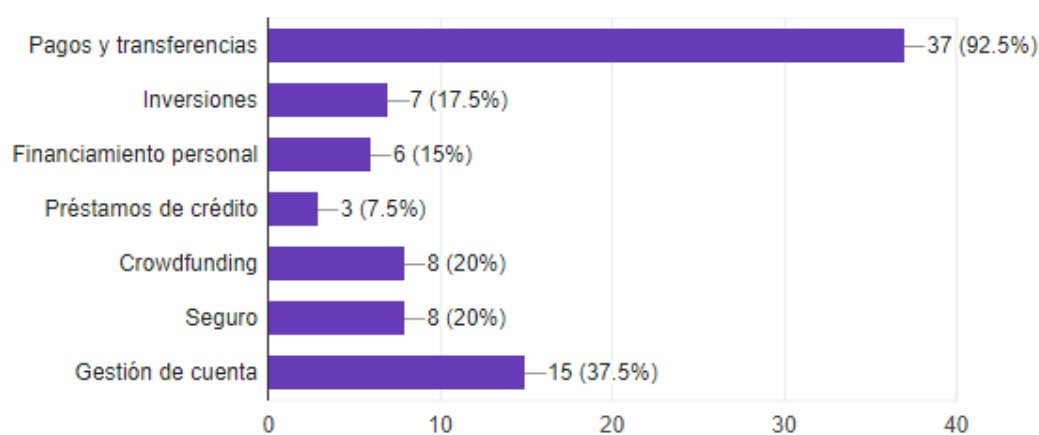


¿Por qué elegiste o elegirías un servicio de Fintech en el futuro? Elija las razones más importantes que lo impulsan a contratar un servicio fintech y clasificarlos del 1 al 7, siendo 7 el más importante y 1 el menos importante.

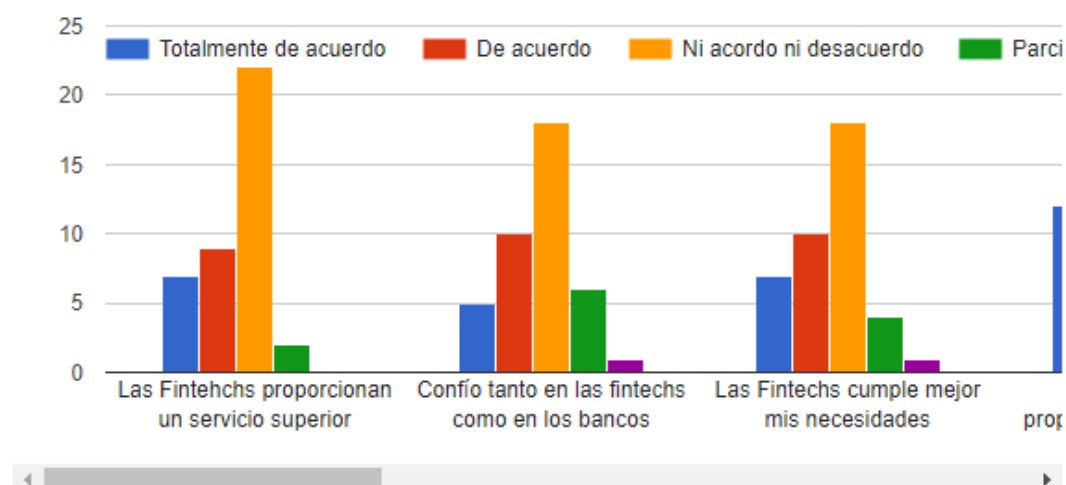


¿Qué tipo de servicio has utilizado y/o consideraría usar en el futuro con una Fintech? Elija todos los que necesite.

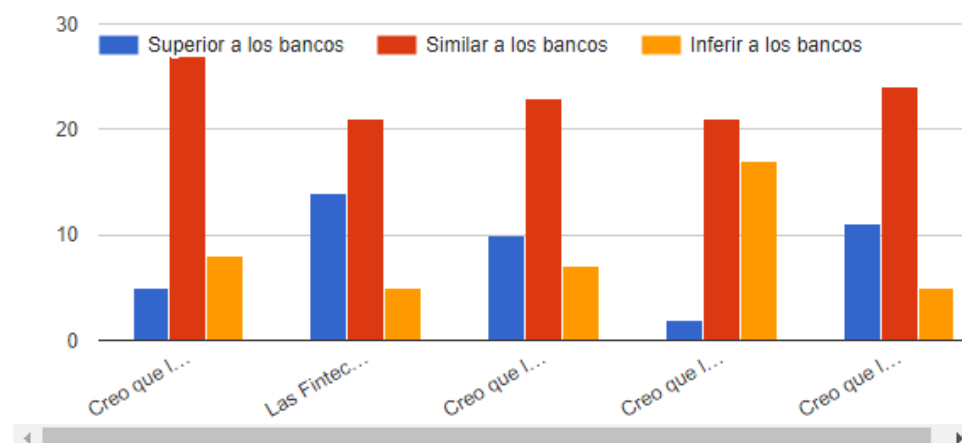
40 responses



De acuerdo con su experiencia, ¿qué tan de acuerdo se encuentra con las siguientes afirmaciones?



Comparado con los bancos, qué tan superior considera a las fintechs en los siguientes aspectos



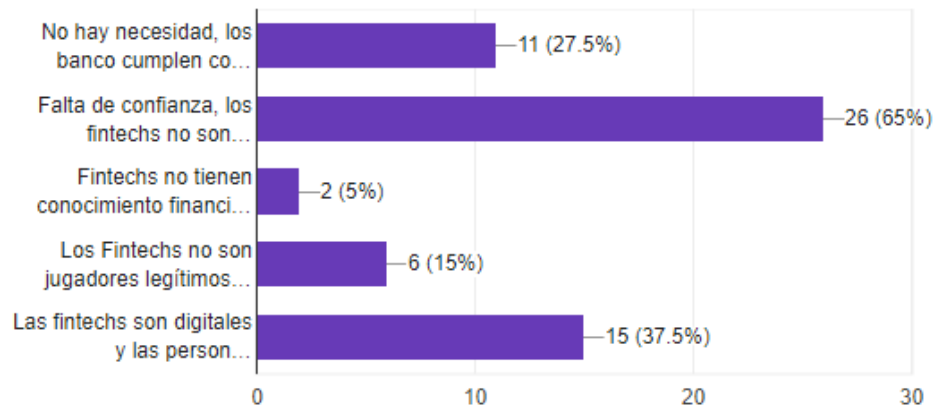
En su opinión, ¿cuáles son las principales ventajas competitivas de las fintechs en comparación con los bancos?

40 responses



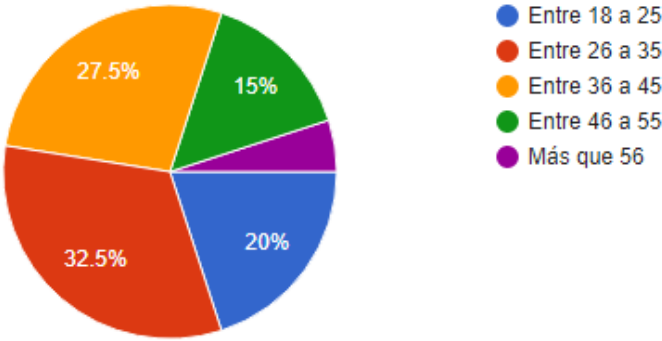
En tu opinión, ¿por qué alguien no consideraría usar un servicio de Fintech? Elija todos los que necesite.

40 responses



¿Cuál es tu edad?

40 responses



Appendix 7: Structured personal interview with customers

1. Perfil

Nombre:

Nacionalidad:

Tiempo que vive en España:

Edad:

2. Bancos

¿Qué banco eres clientes?

¿Cuál es tu banco principal?

¿Por qué razones concentras tus operaciones en ese banco?

¿Qué asociaciones te vienen a la mente cuando piensas en la palabra banco?

3. Proposition 1

En tu opinión, ¿cuál es el grado de importancia de la reputación de un banco en tu decisión de volverse y permanecerse como cliente?

¿Como tú percibes los bancos en términos de similitud? ¿Muy similares o pocos y en qué aspectos?

4. Proposition 2

En tu opinión, ¿hay algún banco que se diferencia (ventaja competitiva) de los demás?

¿Cuáles factores podrían emulsionar la diferenciación de un banco?

¿Como tú percibes el grado de innovación de los bancos?

¿Tú crees que son innovadores?

¿Tú crees que ellos invierten suficientemente en innovación?

5. Proposition 3

¿En tu opinión, los bancos responden a tus necesidades en términos de digitalización, personalización, agilidad y servicio al cliente?

¿Ya has usado un servicio de fintech? ¿en tu opinión, cuáles son las ventajas competitivas de fintechs?

6. Proposition 4

¿Cómo evaluarías la calidad de los servicios ofrecidos por fintech en comparación a los bancos?

¿Los considerarías superior y por qué?

¿Cómo evaluarías el grado de innovación de las finechs en comparación a los bancos?