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INNOVATION IN THE BANKING INDUSTRY

HOW CAN BANK X THRIVE IN A DIGITAL WORLD?

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Abstract

Digital Revolution has been fostering innovation in the banking industry. The rise of FinTechs has broaden the range of options regarding financial services, increasing the expectations of customers who have become more demanding. This thesis shows the application of entrepreneurial methodologies with high customer involvement, in order to provide a concept to a major bank in the Portuguese market, that creates a new revenue stream without reducing its customer base.

Keywords: Innovation, Customer, Banking, Digital

The Innovation & Entrepreneurship Field Lab

The present thesis characterizes itself as the product of an intense work project embraced during the Fall semester of 2017/18, at the Innovation & Entrepreneurship Field Lab.

This Research Living Lab stands as the hub of innovation and entrepreneurship of Nova SBE and aims to apply entrepreneurial methodologies through innovation processes to solve real life problems proposed by some of the largest Portuguese enterprises. The challenge this thesis tackles was set by one of the major players operating in the Portuguese banking industry. Due to reasons of confidentiality, the Bank will be referred as Bank X.

In order to provide an insight regarding the bank, the industry and the surrounding environment, the innovation team of Bank X has been working alongside with Nova SBE Master students. For this semester, the proposed challenge was to enable banking fee reductions through a model that would not reduce Bank X's profit margin. In accordance with that matter, three specific challenges derived from the main one, including the one tackled in this thesis. From September 2017 to December 2017, two members of Bank X innovation team and the two students writing the document jointly developed this project, nonetheless, only the students were responsible for developing this thesis.

For the first part of the Analysis - "From a concept to a prototype" - Paulo Portelada has been previously designated as the specialist, responsible to gather the theoretical knowledge regarding that part, while Francisco Stock Serrão had the same role for the second part - "From a prototype to a business model". Nonetheless, both members have developed jointly every phase of this thesis and had a supportive role in the stages they had not been designated as specialists.

At the 20th of December of 2017, the results of this project have been presented to three members of Bank X's Board of Directors, and as well been approved by the majority of them.

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1 Introduction & Challenge

Economy and Society are changing. Both have taken the digital path and future prosperity will rely on those who move along this path. The *how* and *when* banks will perform this transition, will promptly dictate the way they will position themselves in the near future.

The new banking scenario will be characterized by a digital world, where technology stands as the paramount mean to satisfy customer needs, where the massive rise of Fintechs – financial technology companies - will either stand as an opportunity or as a tremendous threat for banks and where changes in customer expectations and behaviour are increasingly evolving. To succeed in future changing environments, Bank X needs to be able to predict and set the future customer behaviour and preferences, meanwhile being able to apply disruptive technology. Without innovative strategies, banks will lose their competitive advantage in an increasingly commoditized world.

Several changes are already in progress. Since 2011, as part of the policies undertaken from the European Central Bank (ECB) to stimulate European economic growth, consumption has been fostered over savings. One decision was to decrease the deposit facility rate which led to a reduction of interest received by banks from the ECB for overnight deposits. Such rate has reached negative values in 2014 and it is currently in an all-time low value (European Central Bank, 2016). So far, banks' strategy was to encourage their clients to deposit their money, through high deposit rates and not charging fees to bank accounts with an associated wage deposited monthly. Back then, by offering their clients a deposit rate lower than the one ECB was presenting, banks profited from a risk-free revenue stream - the net interest rate differential. However, that is not possible anymore since ECB's deposit rates have reached negative values. Nowadays, banks not only have to pay their clients' deposit rate but also the stipulated negative deposit facility rate to ECB.

To overcome the negative rates, banks lend the money they hold instead of depositing it into ECB. Nonetheless, it is not risk-free as there is a probability of the borrower not being able to fulfil the settled instalments, which is acknowledge as default risk. Additionally, lending all the money that was previously deposited in ECB may not be possible. The demand for loans may not be enough for it, due to the customer behaviour which is usually more cautious in post-crisis contexts (Valaskova and Kliestik, 2015), and the rise of new lending sources such as online marketplace, which is expected to provide one trillion dollars in loans by 2025 (Moldow, 2014).

Banks need to adapt their business model to overcome this situation. The automatic effect is the reduction in both credit and deposit rates offered to the clients but that is not enough. The risk-free revenue stream has vanished and it is vital for the bank to find a new one, in order to cover all costs incurred to deliver the service to the customer. The strategy Portuguese retail banks embraced, in order to react to these harmful changes, consists on charging their customers directly. Thereby, banks decided to increase fees and apply stricter requirements for the customer to have access to fees exemption, resulting in a general common dissatisfaction among customers. Such discontent, aligned with the rise of digital banks that do not charge fees, may lead to an increase in the customer churn rate of retail banks, as there is an existent trend towards customers switching banks due to good competitive pricing (Accenture, 2015). Therefore, Bank X proposed the following challenge:

How can Bank X create a low risk revenue stream that does not reduce its customer base?

The aim of this thesis is to develop a new concept that generates a low-risk revenue stream for Bank X and validate it among clients to ensure it does not reduce the bank's customer base. In order to answer the challenge, a situation analysis will be conducted to detect an opportunity and exploit it through the design of a prototype and the conception of a working business model for Bank X to implement.

2 Work Methodology

To achieve the proposed aim, the first step consists in conducting a thorough diagnosis regarding the bank and the market, in order to detect a possible opportunity and evaluate its potential. After identifying an opportunity, an analysis shall be conducted, to comprehend how it can be exploited, through the development of a prototype and a corresponding business model, with a customer oriented mindset. Finally, recommendations are provided through an action plan to implement the solution developed, and the potential impact it is expected to generate. All the stages, its objectives, methods applied, and activities performed, are summarized in the following *Table 1*.

Stages	Objectives	Method / Tools	Main Activities
Diagnosis			
Situation	Analyze current situation of Bank X	Desk Research	• External Analysis • Internal Analysis
Opportunity	Detect an opportunity to exploit	• Desk Research • Exploratory Research	• Focus Groups • One-to-one interviews
Analysis			
Prototyping	Create a validated prototype	Design Sprint Methodology	• *Day 1 - 3:* Prototype formulation • *Day 4:* Prototype development • *Day 5:* Prototype testing • Incorporating feedback
Search for a Business Model	Turn the new concept into a valid business opportunity	• Customer Development Process • Business Model Canvas • Validation Board	• Business Model Canvas design • Hypotheses statement • Hypotheses testing • Incorporating feedback
Recommendations			
Action Plan	Create a roadmap for Bank X to implement the recommended solution	3 Ms: • Money • Minutes • Men	• Roadmap design ○ Key Activities ○ Key Resources ○ Cost Drivers • KSF
Impact	Measure the potential impact for Bank X and its users by implementing the recommended solution	• NPV analysis • Payback analysis • IRR analysis	• P&L • KPIs

Table 1: Summary of the objectives, methods and activities applied throughout the thesis
Source: Team Analysis

3 Diagnosis

In the former decade, the Portuguese Banking industry has witnessed a profound period of change in its structural foundation blocks. An economic recession has shaped the Portuguese economy and the digital revolution has dived deeply into the routines of the population, originating new needs as well as new habits among customers. In order to correctly perceive the causes of this change and the way Bank X has been affected, one shall carefully analyse the external factors that have been shaping this industry, and conduct an internal analysis that also underlines that Bank X has the necessary resources and capabilities to thrive in this competitive and demanding environment.

3.1 External Analysis

3.1.1 Context

Portuguese banking regulation policies are aligned with the EU legislative practices and government intervention is punctual and focused on the stability of this sector. As an effect of the latest global financial crisis (2007-2009), ECB's monetary policy decisions relied on the decrease of both deposit facility rate, which represent the interest received by banks that make overnight deposits in ECB, and the marginal lending facility rate, for overnight credits. Since 2009, deposit rates have been below 1%, reaching negative values from 2014 onwards and damaging the major source of revenue of Bank X: net interest income (Bank X Annual Report, 2016), that results from the difference between the received interests and the paid ones.

To overcome this situation, Portuguese banks have been focusing on a different revenue stream: fees. In the last six years, the average maintenance fee increased by 37% (Godinho, 2017), the average debit card annual fee increased by 28% from 2015 to 2016 (Marcela, 2016) and several other fees had a homologous behaviour. At the same time, stricter requirements have been imposed to customers in order for them not to pay the maintenance fee (Abreu, 2017). These

circumstances generated dissatisfaction among customers, leading *DECO PROTESTE,* the Portuguese association that defends consumer's rights, to start a petition to prohibit banks from charging fees regarding maintenance and loans.

Regarding regulation, the Second Payments Service Directive (PSD2) that will be implemented in January 2018, among European Union countries, will as well change the banking industry. With the aim of propelling transparency to bank customers and competition among incumbents, this directive will force banks to provide to third-parties access to the account information of banks' customers, under their authorization - open application programming interface (API) – as well as to enable third-party enterprises to become Payment Initiation Service Providers (PISP), giving clients the opportunity to perform payments through other platforms, rather than the bank's one. According with PSD2 regulation, bank customers will no longer be dependent on banks to perform transfers nor payments and banks will no longer compete with banks solely, but with any financial service provider.

3.1.1 Trends & Industry players

Alongside these changes in the banking industry, soars the digital revolution. Customers are moving online, services are shifting to digital and apps and websites are becoming the bridge that connect enterprises to clients. By 2020, it is expected that social media will become the paramount medium to engage, inform, connect and understand customers, as well as the platform they will trust to elaborate researches and compare banks' offerings (PwC, 2014).

Despite accelerating the process of transformative digitalization of platforms and increasing convenience, the digital revolution led to the rise of the FinTechs that provide financial services and that are starting to threaten traditional banking business models, whether in money payments, money transfers, loans, fundraising, or asset management. FinTechs have positioned as direct competitors to banks, once customers perceive them as an alternative method to use

financial services. Digital innovation stands, this way, as the gate to the future. Whoever does not embrace it, remains in the present - the future past.

Furthermore, those new entrants have been already penetrating the Portuguese market. Research conducted by Basef Banca highlights that the number of internet banking users have been constantly growing in the last years, and that approximately 65% of the Portuguese population is aware of Banco CTT, a digital bank that charges no maintenance fees, created in the end of 2015 with approximately two thousand clients (CTT Annual Report, 1st Semester 2017). Digital innovation is not restricted to new entrants. For instance, Novo Banco is a major traditional player in the Portuguese market that included into its services an App that allows its users to transfer money through chat Apps (e.g. WhatsApp).

All these changes affected the customer behaviour as well as their expectations towards banks, which have profoundly increased. Nowadays, clients have a preference for banks that listen and understand them, apart from the ones that merely deliver their value proposition. Customers have a clear preference to customized services and convenience (CGI, 2015). Moreover, small and medium-size enterprise customers are 4.5 times more likely to choose a bank with a good digital platform than one with branches nearby (McKinsey, 2015). Due to disruptions in customer behaviour and expectations, the purpose and role of Banks are being challenged.

3.2 Internal Analysis

3.2.1 Organization

Bank X positions itself as a retail bank that aims to help people and businesses to prosper, through accurate financial asset management and credit provision. Bank X stands as an enormous organization that employs more than six thousand individuals, spread over six hundred branches in the Portuguese geography and serves around four million clients. Its main revenue streams derive from net interest income (58%), fees (30%) and the trade of financial instruments (11,5%) (Bank X Annual Report, 2016). According to sources undisclosed due to

confidentiality, Bank X's strategy regarding digital revolution relies on investing in the improvement of the digital service. The goal is to increase the number of active digital users, i.e. clients who visit Bank X digital platforms frequently and perform their banking activities through those platforms, in order to reduce the number of branches.

3.2.2 Strengths

The first strength of Bank X characterizes by the fact that it holds already a consistent customer base and therefore can focus on customer retention, rather than on customer acquisition, since the latter is more expensive than the former (Kingwill, 2015). Another strength, is the fact that Bank X's customers have to deal with switching costs in order to exchange Bank X's services for another party services, say a FinTech. Linked with that, arises the third strength. Since Bank X holds a competitive advantage regarding FinTechs, in what customer base may concern, such factor may lead to a coopetition between FinTechs and Bank X, in the providence of better financial services, rather than to a competition. Depending on the strategy Bank X undertakes, FinTechs may stand as a threat or as an opportunity.

3.2.3 Weaknesses

Due to the decreasing customer engagement with banks (EY, 2016), Bank X may not even be aware of its clients' concerns or only realizes it, when those needs are already addressed by the new competitors, which are more agile (Accenture, 2014). Additionally, FinTechs Startups and high-tech companies such as Apple and Google, pursue to disrupt the banking industry through providing value propositions with a more attractive technology than the one offered by retail banks, such as Bank X. Such technological development also allows FinTechs to incur in lower operating costs than Bank X, since it owns hundreds of branches. A research conducted by McKinsey and Librium outlined that Lending Club, a Peer to Peer lending platform, had

operating costs of 2.70% of their outstanding loan volume while the retail banks' average costs were 6.95%, with the costs of the branch network making up over 2%.

3.3 Opportunity Analysis

3.3.1 Desk Results

Alongside with the digital revolution, customer friendly new business models have emerged. Facebook, for instance, was able to develop a profitable business model with billions of users by not charging any of them, but a third party instead. Users are not charged since their usage of the Facebook platform provides revenue itself, as it generates valuable data that is monetized through advertisements (Reuters, 2017). A similar one is the Spotify freemium business model, that provides free usage of its service while generates revenue from the commercials displayed to non-premium users and from its premium users – the ones who pay for not having advertisements on their accounts (Wagner, Benlian and Hess, 2013).

These business models represent an opportunity to Bank X to satisfy its customers, which are highly dissatisfied with the increasing fees, through monetizing its data. The bank does not only own valuable data about customers' income and transactions, but also the trust of its clients to keep their money safe (EY, 2016), therefore, being perceived as a credible institution to keep their data safe. Data privacy has been a trending topic ever since Edward Snowden disclosed, in 2013, classified documents revealing numerous surveillance programs, which affected users' trust levels towards giant data aggregators, such as Facebook and Google, that have been dealing with criticism over data privacy since then.

Based on the key success factors of these user-friendly pricing systems and customers' trust towards their banks, the answer to Bank X challenge is expected to rely on creating a business model that enables users to have access to fee reductions which are supported by revenues coming from a third party, that value Bank X's customers data base.

3.3.2 Exploratory Results

In order to evaluate the feasibility of Bank X's data monetization, through a business model based on advertisements, insights from both sides, clients and advertisers were required. Thus, three focus group, with seven participants each, were conducted to understand the users' relationship with their bank and their receptiveness towards advertisements, as well as two one-to-one interviews to understand the rationale behind the process of online advertising and what are advertisers looking for when choosing a platform. The first interview was with Danone's digital marketing department, a potential advertiser, and the other interview was with a media agency - a company that advises enterprises from nearly all sectors and industries on *where* and *how* to advertise.

The focus groups were assembled by age - One with participants from eighteen to twenty-five years old, a second one with users above twenty-five years old and a third one with no age restrains - to test if age was a differentiator factor. Regarding the user-bank relationship, while *paying commissions* has been considered by the older group as a pain creator within their banks, the members within the younger group did not share the same opinion, since all the seven young participants involved did not pay banking fees. Nevertheless, there was a common factor across all ages: digital channels are the main point of contact between the clients and the bank.

Regarding users-advertisements relationship, all groups demonstrated a higher interest in contextual advertisements, which are advertisements displayed based on user's data, and were willing to accept the display of advertisements within their banks' digital platforms, if they benefited from it and their personal data security was guaranteed. However, while the older participants valued a fee reduction, the members from the younger group requested discounts in the products and services advertised.

From the advertiser's side, it has been recognized that there are four paramount concerns when choosing an advertising platform: 1. the number of different users it reaches; 2. how frequently does each user usually visits the platform (logins per user and average time per login); 3. the capacity of the platform to raise brand awareness; and 4. the conversion rate the platform provides (the number of desired actions, usually sales, divided by the number of visitors).

Another result to take into consideration is that different companies have different concerns. While Danone focus its advertising campaigns in raising brand/product awareness, that is, reaching the highest possible number of users, other companies seek for highly segmented advertising campaigns that provide them higher conversion rates. For those latter situations, both media agencies and Danone mentioned that Bank X's platform is potentially interesting, as it is capable of segmenting customers based on their income and past transactions. Furthermore, it was also noted that the credibility of Bank X is perceived as a strength of its platforms.

Regarding the process that links advertisers and advertising platforms, the contact between both parts of the process can be done directly or through intermediaries, such as media agencies and advertising networks, being the latter the most common choice elected by companies that pursue to advertise.

4 Analysis

To reach the aim of this thesis, just adding a new revenue stream to the current business model of a retail bank is not enough. It is necessary to reshape the business model itself according to the changes the industry banking is currently facing. Once the proposed challenge is directly linked with customer satisfaction, for this analysis it was applied a customer oriented approach by using the following methodologies: *The Lean Startup Methodology*, *Design Spring Methodology* and *Customer Development Process*. With the *Lean Startup Methodology* and

Design Sprint Methodology being discussed in the first part of the analysis and *Customer Development Process* in the second part.

4.1 From a concept to a prototype

4.1.1 Theoretical Background

Ries (2011) developed *The Lean Startup Methodology* to apply lean thinking into innovation processes, supporting such approach on five key principles:

Entrepreneurs are everywhere – This principle extends the concept of entrepreneurship to every institution that creates new products and services under conditions of extreme uncertainty, such as Bank X that looks to thrive under the current digital revolution.

Entrepreneurship is management – This principle highlights the importance of having a type of management different from the one conducting standard processes, in uncertain contexts.

Validated learning – The third principle underlines the importance of testing every assumption behind the entrepreneur's vision in order to learn how to build a sustainable business.

Build-Measure-Learn – The principle that is identified as a key success factor for a Startup, since the whole process of building products out of ideas, measuring customers responsiveness to the developed product and learn from their feedback must be executed quickly.

Innovation Accounting – The last principle recognizes the requirement of measuring the progress achieved throughout the innovation process.

In line with those five principles, it is the *Design Sprint Methodology*. Knapp, Zeratsky and Kowitz (2016), from Google Ventures, developed a unique rapid and intense process built upon the paramount goal of enabling any company to find out if it is on the right track before committing to the launch of a new product, a new service or even a new enterprise. The *Sprint* runs on five consecutive dynamic days, where each one has a single purpose. Through this five-day process, incumbents will have the opportunity to answer crucial questions through

prototyping and testing ideas with customers. It is a process that brings teams together, brings ideas to life and delivers the best results in minimum time frame.

This process begins on Monday – the mapping day - where the team sets the main goal for the *Sprint* week, maps the challenge and identifies the steps required to take to achieve the proposed goal. Tuesday, is the solutions day. After gathering all the information collected on Monday, the team will collect the ideas that can be used to form a possible solution. Those ideas shall then be converted into concepts that can possible solve the challenge. On the third day of the week, those concepts will be presented and constructively criticized by team members before going into a voting system to decide on which concept will the team focus for the rest of the week. Thursday is then dedicated to prototyping the chosen concept. The day is about establishing the features that will represent the prototype of the product or service that is being developed. On Friday, the team will test the prototype, through interviewing potential customers and learning from their responsiveness to it. These tests will enable to predict human behaviour and to know what is necessary to add, what must be removed and which features fulfil the customer needs.

4.1.2 Designing a Prototype

Monday

The first day of the *Sprint* week started with gathering information from experts in the banking industry. Mixing that flow of information with the one collected during the diagnosis, the goal intended to achieve in the last day of the week was set: create a business model for Bank X with advertisement based revenues that adds value to both the customers (advertisers) and the users (bank clients). Afterwards, a map of the challenge was drawn, where it was possible to identify the players and the obstacles yet to overcome.

In the map it were acknowledged the benefits for each party of a potential multi-sided platform. Advertisers (customers), could benefit from a valuable data segmentation, since Bank X holds information regarding users' income, transactions history, or monthly savings. Moreover, advertisers could benefit from the credibility of Bank X's platforms and the opportunity to display advertisements in premium placements due to its unique timing, e.g. when a mortgage application is being conducted, advertisements regarding furniture could be displayed.

Users would benefit from a bank account with no fees, since revenues generated with the advertisements, allied with a low-cost structure inherent to a focus on digital channels, would enable Bank X to provide a no-cost service. Furthermore, Bank X would provide advertisements with added value to the user, since it would be based on previous transactions.

Tuesday

The second day of the *Sprint* week was characterized by the day of solutions. The first step to take consisted on sketching the group of solutions set the day before and turn those ideas into concepts and collectively elect the three best ones. After a brainstorming process, three concepts have been elected:

Inside Bank X Concept – an opt-in program, inside the Bank, where every customer interested in reducing fees (*commission haters*) or seeking for promotions and discounts (*value seekers*) would apply. Advertisements would be displayed in Bank X digital platforms and through a points system, users would get benefits considering their digital activity. This way, Bank X clients that are commission haters or value seekers would be given an alternative to either relieve their pain or create a gain.

New Banking Concept – the idea was to create a whole new bank providing all financial services but instead of charging fees, services such as transfers, credit application or service

payments, would be sponsored by other companies. Additionally, there would be also some contextual advertisements based on the customer spending history and financial activity.

The Aggregator Concept – a no-cost bank account that also aggregates all users' bank accounts, enabling them to perform all banking transactions from every bank account through the same platform. This account would redirect users to Bank X offers when they pursued additional financial services, such as loans, insurances or saving plans. In this concept, advertisements would be included in a specific tab regarding promotions and while the user is browsing.

Wednesday

On the third day of the *Sprint* Week it was decided which concept had the best chance of achieving the initial goal established and through a voting system, the Aggregator Concept stood as the elected one. *Z Card* was the name elected for the chosen idea. All the features to be included in this product were discussed as well, such as a *review system* towards promotions and *deals nearby*, displaying promotions in a close area.

Thursday

The fourth day of the week was dedicated to prototyping. *Z Card*'s platform was decided to be an App, thus, its landing pages were created in order to demonstrate to the user its functionalities. Regarding the deals, users would only access them out of their own free will and could also access to the deals nearby if the App was allowed to have access to their location. Some deals' recommendations would also show up when paying services, making transfers or checking past transactions.

4.1.3 Validating the Prototype

Friday

The product was tested with 8 potential users of the App and 4 digital advertising experts – 2 media agencies and 2 technological experts.

Key takeaways from digital advertising experts:

First of all, the advertisement based revenue model is not really successful in Portugal, due to its small-sized market, leading to average prices of 0,01€ per impression, i.e. every advertisement viewed by the user, and 0,50€ per user click. Adding to that, since the Aggregator concept would have to build its own customer base from scratch, *Z Card's* platform was perceived as unattractive for advertisers, due to its low traffic platform.

On the other hand, while current platforms provided by Google Ads Network, for instance, work through an algorithm based on what the user did, *Z Card* may be able to develop some predictive analytics based on current actions taken by the user. While the user is merely telling Google what he intends to do, *Z Card* has the capability of knowing what the user really does. Furthermore, the possibility for advertisers to display advertisements while the users are paying to its competitors was perceived as an interesting feature.

Key takeaways from users below 25 years old:

The majority of the interviewed potential users valued the *no fee account* characteristic associated to *Z Card* and showed no major concerns regarding the safety of their personal data in an advertised home banking platform. Nevertheless, this group age sees no value added in having an app that recommends the best discounts for each single user, since the majority does not search for discounts or promotions. Regarding *the accounts aggregator* feature, young users did not perceive it as a useful tool as well, since most of them has only one bank account. Thus, their motivation to subscribe to *Z Card* would be low.

Key takeaways from users above 25 years old:

Users from this age group revealed to be much more interested in having tailored discounts than the former group. This may be justified by the fact that the individuals from this range have much more financial concerns and responsibilities when compared to the younger group. In line

with that, the feature they preferred the most was the *account aggregator*, due to the fact that they had more than one bank account and this feature would simplify the management of their banking accounts.

Overall key takeaways:

Users from both groups revealed to be unwilling to switch banks, unless they had a tremendous motivation leveraging it, and *Z Card*'s value proposition did not stand as a motivation that would stimulate them to switch to a *Z account*. Without users, *Z Card* stands as an unsustainable model, that cannot provide a no-cost service to its users. Not only would the platform have a low number of users, but they would also have low incentives to visit the app frequently. Therefore, the expected revenues from advertisers, would not overcome the costs associated with not charging fees. Even though the business model was not considered to be profitable, media agencies perceived this type of segmentation as a valuable one, due to its uniqueness.

4.1.4 Intermediary Conclusion

Due to the feedback received, and with the aim of creating a successful product perceived by users and customers as a service that satisfies their needs and by Bank X as a valid gain creator to its business model, a pivot (a significant change in the business model) was necessary. Thus, five core changes have been incorporated.

The first change implemented was to build a concept that could be incorporated in the current Bank X business model, instead of creating a whole new one. Thereby, the concept would focus on Bank X customer base and the process of customer acquisition would be avoided, which is tremendously challenging in the banking industry due to the associated switching costs.

The second change regards the implicit revenue model, since it would not be sufficient to overcome the losses of the cut in commissions. Instead of providing a no-commission account, the new concept would offer a reduction on customer fees, based on their activity in the banking

online platforms. As the number of advertisements seen by a customer increases, so does the revenue derived from it. Thus, the user is rewarded in accordance with the revenue he/she originates.

The third change consists in the design of a point system. User's online activity will be rewarded through the attribution of points which can be exchanged for prizes presented in the "Reward Catalogue". The range of rewards will go from financial to non-financial ones and each reward will have attributed the number of points it is worth. Non-financial rewards may be characterized by discounts in the price of products supplied by Bank X partners, such as a music festival ticket discount.

The fourth change regards the name of the product. *Bank X Escape* has been chosen as the most suitable name for the new concept. It is appealing for the customer and leads him/her to unconsciously associate the service name – *Escape* – with an opportunity to escape from all the adverse aspects bank customers are charged with, namely the banking fees.

Consequently, some features were considered not to be adequate to implement inside Bank X system such as a separate section for discounts and the aggregator feature, due to the fact that the majority of users interviewed did not value those features

4.2 From a prototype to a business model

4.2.1 Theoretical Background

In spite of having developed a prototype through the *Design Sprint Methodology*, in order for the product to be successful it is crucial that it is perceived by users as a necessary service that satisfies their needs, and by customers as a valuable platform for them to display their advertisements. Whilst that perception is not identified, the business model remains as a set of untested hypotheses, thus, a search for a repeatable and scalable business model was required.

Blank and Dorf (2012) developed the *Customer Development Process*, a methodology that helps to determine the exact perception both the user and customer have towards an established concept and aims to reach a desired business model through customer inputs. The approach consists in two separate phases: search and execution. Since the proposed aim was to explore a concept for Bank X to implement, only the first phase has been taken into consideration. However, the latter phase should be applied by Bank X while executing the proposed concept.

There are two steps in the first phase: *Customer Discovery* and *Customer Validation*. The first step, as the name evidences, aims to understand entirely the customers: their problems, their needs and how to solve and fulfil them. In accordance with that aim, the business model associated with the prototype previously created must be tested. The inherent building blocks are nothing more than just guesses, so it is mandatory to build hypothesis based on those guesses, in order to test customer reaction. In the initial part of the process, the goal is to understand if the solution associated with the prototype fits the target customers' problems. To identify if there is a problem/solution fit, there are 4 steps within the Customer Discovery.

The first step is to clearly establish the set of hypotheses regarding the problem proposed to solve. In the second step, experiments should be conducted to test the previously identified hypotheses in order to turn them into facts or discard them. The third step is to find and test the solution by presenting the corresponding minimum viable product (MVP) – a product with enough features to assess the performance of the final product – to the customer. The final step is to analyse the results of the experiments, realize if there is a full understanding of the customers' problem and if there is a problem/solution fit. If there is no fit to move to the next step. Otherwise, a pivot is necessary, until a problem/solution fit is reached.

The last step within the search phase is the *Customer Validation.* After reaching a problem/solution fit, it is necessary to discover if there is a product/market fit, i.e. if customers will choose the product as the solution for their problem. The goal is to reach one of two possible

outcomes: a validated business model or pivots to improve the tested business model. To do so, it is necessary to try to sell the product which is the whole idea behind *Customer Validation*. There are four steps associated with it: Preparing the sale, selling, gathering feedback from the sales and do a pivot-or-proceed analysis.

The first step is about positioning the product: define who are the targets, have a MVP to clearly identify what is for sale and define beforehand the metrics and the minimum validation criterion. Afterwards, the actual test must be conducted by going out and trying to sell the product. In the case of multi-sided markets, it is necessary to test each side. The third step is to gather the feedback from the sales test and analyse the customer behaviour to refine the product accordingly. Finally, an overall analysis is necessary to evaluate if there is a business opportunity worth to invest or if a pivot is required and some further validation is needed.

Throughout this process, some tools were considered necessary to support it such as the Business Model Canvas, to sketch the business model inherent to the prototype created, and the Validation Board to guide the team through the whole validation process.

Business Model Canvas

Having a concept and a prototype, the next step to take is to start the *Customer Development Process* through the design of the corresponding business model. Oesterwalder and Pigneur (2010) developed a framework that divides a business concept into nine core building blocks and perceives deeply how it pretends to create, deliver and capture value - the Business Model Canvas. Its building blocks are allocated in two parts: the front office, constituted by the Customer Segments, the Value Proposition, the Customer Relationships, the Distribution Channels and the Revenue Streams; and the back office, composed by the Key Activities, the Key Resources, the Key Partners and the Cost Structure. Each block represents an assumption,

thus, the order the blocks are built, depends on the risk of each assumption. Since the riskiest ones must be the first ones to test, those are also the first blocks to build.

One of the most important blocks is the Customer Segment, the one that evidences the different customer groups the business concept serves. The customers whose needs will be fulfilled with the product or service. Whether a mass market, a niche market, a segmented market, or a multi-sided platform market. For the latter, it is required to build a Business Model Canvas to the users, who will use the product/service, and one for the customers, who will pay for it.

The Value Proposition block, describes the bundle of products and services that create value for a specific Customer Segment, as well as the customer needs the concept satisfies. This, stands as the reason why customers turn to one company over another. Distribution Channels, on the other hand, describe how a company delivers its Value Proposition. The panoply of Channels and the way they operate, also contribute to help Customers to be aware of the company's products and services, to evaluate better the company's Value Proposition, to allow customers to purchase products and services and to be provided with post-purchase support. Regardless of the method a company uses to deliver value, a company also focuses on the Customer Relationships, the block that describes how a company gets (customer acquisition), keeps (customer retention) and grows (boosting sales) its customer base. Revenue Streams represent the way and amount of cash a company collects from each Customer Segment.

Regarding the back office, defining the Key Resources of a Business Model is highlighting the key assets needed to deliver, create and capture the business value proposition. Whether physical, human, financial or even intellectual resources, say patents or customer databases. Key activities, though, represent the most important actions a company must perform in order to make its business model work. In the meantime, Key Partners embodies the network of suppliers and partners that contribute to the delivery of the business model. Finally, the Cost Structure evidences the most important costs incurred to operate the model.

Validation Board

After the Business model is settled, it is important to test it. To track the progress, it was used the Validation board. This framework was developed by the Lean Startup Machine to organize the entire process in order to make it faster and its developments traceable. For that matter, the validation board includes four important tasks: state the hypotheses, the experiments, the minimum success criterion and the final validation result.

The first step is to state the hypotheses intended to test, they must be assumptions core to the business and specific to the customer. The hypotheses must be stated explicitly, in the same way the customer himself would describe it, and the riskiest ones should be tested first because it takes just one invalidated core assumption for a pivot to be required.

The desired feedback is the one that is credible and gathered among the target customer segment, so it is extremely important which experiments are used and to whom are they addressed. The credibility is highly connected with the pain the customer takes when endorsing the product. While praising the product during an interview is "cheap" to do, submitting an e-mail to subscribe to a newsletter creates more pain to the customer, therefore, the endorsement through the latter is more significant. Finally, it is important to establish what makes a hypothesis valid or not by outlining the minimum success criterion, which must be adapted to the method used in each experiment and the sample size.

4.2.2 Designing a Business Model

After adapting to the *Sprint* conclusions and incorporating the six changes required, a new prototype has been created. Bank X *Escape* may be characterized as the service Bank X can provide in order to give current and potential users the opportunity to be rewarded by their digital banking activity. Through a Point System, where more points mean more rewards, every customer will be rewarded according to their online Banking usage – Bank X's website and

app. Each digital banking operation, say a transfer, a service payment or merely checking one's balance, will represent a certain number of points. Associated with the Point System, it has been created a "Reward Catalogue", where each reward is set a certain number of points that stand as the criterion that enables a customer to benefit from.

Another fact to take into consideration is the advertisement display within the digital platforms. In order to ensure the sustainability of Bank X *Escape* concept and potentiate its profitability, advertisers will have the opportunity to advertise in the bank's digital platforms. Revenues will come from Advertisers and will derive from the number of advertisements' impressions and clicks from the users. Furthermore, advertisers will benefit from a unique type of segmentation, based on the users' income and their recent card transactions. The amount of points a customer accumulates is based on the amount of revenue it has generated to the bank, through the visualization or clicks on advertisements.

Due to the fact that Bank X *Escape* service creates value for two independent group of customers while enabling interactions among them, its business model stands as a multi-sided platform, since it will connect two sides – the ones who use the service (Bank clients) and the ones who pay to be in the service (the advertisers). The creation of the Business Model Canvas assumes itself as the first step in the Customer Discovery phase. Through this framework, one will be able to accurately perceive how Bank X *Escape* intends to create, deliver and capture value for both sides, as it is represented in *Table 2*.

	Users	Customers
Customer Segment	• **Commissions Haters but Switching Reluctant** Clients that are not satisfied with the commissions charged but are not willing to switch to a low-cost bank • **Digital Users** Users who are currently not rewarded by their banking digital activity • **Value seekers** Users that seek the best deals in the market	**Performance advertisers** Advertisers that value thorough segmentation to reach higher conversion ratios
Value Proposition	A convenient opportunity to reduce one's banking fees and get access to tailored advertisements	A unique way to reach customers, during their banking activities, through a credible platform while benefiting from a unique segmentation
Distribution Channels	• Bank X Website • Bank X App	
Customer Relationships	**How to get Users?** • **Owned Media** Bank X website, App, newsletter, bank account managers and branches' employees • **Paid Media** Advertising in Social media to reach digital users E.g. Facebook, Instagram Advertising in traditional media to reach commission haters and value seekers who are not digital users. E.g. TV, radio, out-of-home media • **Earned Media** Word-of-mouth marketing, online reviews and social sharing of *Escape* service	**How to get Customers?** • **Media Agencies** One-to-one interviews, due to the fact that these kinds of companies already hold portfolios that aggregate an extensive number of advertisers from an extensive number of different sectors and different industries. • **One-to-one presentations to advertisers** For any company that pursues to be part of *Escape* advertising network but it is not associated with any media agency
	How to keep and grow Users? • **Point System** Attribution of points for each banking activity (e.g. Transfers, service payments) performed in any digital platform • **Daily Reward** Attribution of points for the first login of the day in each of the bank digital platforms • **Points Campaign** Create seasonal campaigns rewarding points, in order to generate traffic in the digital platforms	**How to keep and grow Customers?** • **Digital Marketing Metrics** Establish KPIs (e.g. click through rate, conversion rate) to support the quality of Bank X website and APP as advertising platforms
Revenue Streams	• Euros per impression • Euros per click	
Cost Structure	• Paid media • Points attribution • Algorithm development • Platform restructure • Human Resources	
Key Activities	Point System	Digital Marketing
Key Resources	Advertising Network Digital Platforms (App and website)	Machine learning and predictive analytics algorithm Digital Platforms (App and website)
Key Partners	-	Media Agencies

Table 2: Business Model Canvas
Source: Team analysis

4.2.3 Validating the Business Model

The above business model is just a group of assumptions requiring testing and validation. To do so, the primordial and paramount step to take was the design of the Validation Board, which includes two separate cycles. The first cycle objective relied on understanding entirely both the users and the customers and to reach a problem/solution fit – Customer Discovery stage. The second validation cycle objective was to understand if both users and customers would choose *Escape* service as the solution for their problem and to reach a product/market fit – Customer Validation. For the development of this thesis, the customer segment, value proposition and revenue streams were prioritized, due to the degree of uncertainty they entail. Hence, only the hypotheses regarding those building blocks were tested. For each validation cycle it has been set a range of hypotheses to be tested and the minimum success criterion to validate each hypothesis. The results have also been incorporated into the validation board.

1st Validation Cycle - Users

There are two main concerns towards the *Escape* concept regarding the user side: what are the users willing to do for a fee reduction and how much traffic will they generate in Bank X digital platforms. Additionally, to optimize the cost structure of the business model, it is also important to understand which rewards are truly valuable. Taking this into consideration, four hypotheses have been designed as it is evidenced in *Table 3*.

	Hypothesis	Focus	Goal
H1	Users are willing to subscribe to *Escape* for a possible reduction in fees	Customer Segment	Comprehend if there is a significant market size
H2	Users are not willing to join a low-cost bank to reduce their fees		
H3	Users will increase their digital activity to get points	Value Proposition	Identify if *Escape*'s rewards will generate traffic
H4	Users are interested in receiving, from the bank, rewards unrelated to financial services		Measure importance of having non-financial rewards

Table 3: Set of hypotheses tested for the user side
Source: Team analysis

In order to correctly perform the first validation cycle regarding the user side, a survey has been elected as the experiment to test these four hypotheses, since it can reach a considerable number of people and provides quantitative results. A question regarding "Age" was included in the survey, to perceive whether there are discrepancies regarding the problem/solution fit in different intervals of age. The survey conducted was distributed through social media channels and several companies' internal networks, reaching to 249 users from eighteen to fifty-five years old, with only 10% below twenty-five years old.

Minimum Success Criterion

The established criterion to validate each hypothesis is summarized in *Table 4* alongside with the questions core for the validation process and the consequent survey results.

Question Type	Question	Core options for validation purposes	Hypothesis Tested	Minimum Success Criterion	Survey Results
Multiple Choice	Would you increase your digital activity to get points that could convert into fee reduction?	a) Yes b) No	H3	> **50%**	**89%**
	Would you increase your digital activity to get points that could convert into discounts in third parties' products?	a) Yes b) No	H3 &H 4	> **50%**	**84%**
	Would you allow ads in your home banking if you would get points in return?	a) Yes b) No	H1	> **50%**	**60%**
	In which of these banks do you have an account?	Several low-cost banks	H2	From the total of users that value low fees **"> 3"**, **more than 60%** does not have an account in a low-cost bank.	**87%**
Rating Questions	How would you rate, from 1 (not important) to 5 (super important), the following bank's attributes?	Low Fees	H1	Average > **3**	**4.5**
	How would you rate, from 1 (not important) to 5 (super important), the following benefits?	a) Fees Reduction	H1	Average > **3**	**4.5**
		b) Discounts in third parties' products	H4		**3.9**

Table 4: Survey questions, Minimum Success Criterion and results
Source: Team analysis

Results

The survey results **validated all the hypotheses** and highlighted even further the potential of *Escape*. The market size exceeded by 27% what was expected (minimum success criterion) and the willingness of users to increase digital activity in return of fee reduction (89%) also

overcame team's expectations. Such results also demonstrate the potential *Escape* may have in incorporating Bank X's strategy, to increase the number of digital active clients.

1st Validation Cycle – Customers

Regarding the customer side, the methodology approach was slightly different than the one conducted on the user side. Due to the nature of the relationship between advertisement platforms and advertisers, usually established by a third party, it was not possible to conduct a direct and quantitative analysis. Therefore, the following hypotheses (*Table 5*) were tested with the media agencies rather than the advertisers itself, through a qualitative approach.

	Hypothesis	Focus
H1	Advertisers consider Bank X's digital platform as an interesting platform to advertise on.	Value Proposition
H2	Advertisers value segmentation based on the user's income and card transactions.	
H3	Advertisers value advertising in the moment users are performing online payments	
H4	Advertisers approve the Point System	Revenue Stream
H5	Advertisers will pay more per impressions than the market average of 0,01€	

Table 5: Set of hypotheses tested for the customer side
Source: Team Analysis

The experiment elected was one-to-one interviews with two different media agencies. Thereby, the minimum success criterion set is characterized by qualitative variables, rather than quantitative ones. Which means that the validation of the hypotheses stated above will be dependent on the feedback attained from those media agencies.

Results

H1 was validated since advertisers perceive that being part of Bank X's advertising network guarantees them a credible and safe platform to advertise on. Current advertisement networks have no control on the content of the platforms that display the advertisements, while Bank X is responsible for both the platforms and advertisement network. **Both H2 and H5 were also validated in this experiment**. The reach provided by Bank X is considered to be more qualitative rather than quantitative, due to the data it holds (users' income and card transactions), therefore more valuable and unique to advertisers. In accordance with its

uniqueness, media agencies evidenced their willingness to pay a higher price per impression than the market average, once the segmentation provided by *Escape* stands as more valuable than the competitors. Moreover, displaying advertisements while users are performing online payments provides an even greater segmentation. For instance, when a user is paying its electricity bill through the bank's digital platforms, electricity companies will be able to advertise on that exact moment, which is considered by advertisers as a premium placement. **Thus, H3 was likewise validated**. Furthermore, media agencies did not consider the point system to be a feature that would push advertisers away, hence, **H4 was also validated.**

2st Validation Cycle - Users

On the user side, the objective inherent with this validation is to perceive if users would choose *Escape* service as their first choice to relieve their pain, instead of other alternatives. In order to test this hypothesis, one-to-one interviews have been conducted, with random people, from eighteen years-old onwards. Each interview was divided in two parts. The first part, was related to profiling interviewees and exploring their pain. If the interviewee was identified as a potential target, that is, part of *Escape* customer segment – a "commission hater but switching reluctant", a "bank digital user" or a "value seeker" - the interview would move on to the second part – the options test. In this second part, the goal was to perceive if the interviewee elected *Escape* as the solution to his/her problem, when confronted with three options. These three options were 1) a low-cost bank that charges no commissions; 2) a digital banking alternative that consists in a pre-paid debit card where it is charged no commissions; and 3) the *Escape* model, as a service that would be incorporated within the interviewee's bank.

After rating each one of the options, from one to ten, interviewees were asked to state which one would they recommend to a friend with a similar pain. Through that recommendation, the interviewee is unconsciously stating which option would choose to relieve his/her current pain. As the sample size was expected to be 70 people, 42% was settled as the minimum success

criterion to validate the underlying hypothesis corresponding to 30 individuals recommending *Escape* to a friend.

Results

First of all, low-cost banks were not perceived by the majority of the interviewees as a reliable solution to relieve their pain. There was a common opinion among interviewees highlighting that "there are no free lunches" and expressing doubt and skepticism regarding low-cost banks no-fee value proposition. For the majority, such value propositions lack credibility and, therefore, they are not willing to switch to that kind of banks. This evidence, once again, that there is indeed a customer segment that is characterized by the ones who want to reduce their banking fees but do not abdicate from the credibility and safety of their own bank.

Second of all, the majority of the commission haters interviewed – the ones who expressed paying commissions as pain creator - have expressed interest in *Escape* as a valid way do relieve their pain, due to the fact they do not have to switch banks. Adding to that arises the fact that interviewees totally comprehend the rationale behind having advertisements within the *Escape* service and accept it, as long as users' personal data security is guaranteed. Trust issues have been perceived by the majority of interviewees as overcome, since it is a service provided by their own bank. That is, the bank elected by each interviewee as the most trustworthy to deposit their personal savings.

In total, 70 persons have been approached but 32 interviewees have been conducted. Out of 32 people, 21 would recommend *Escape* to a friend, **validating the initial hypothesis**, once the minimum success criterion of 40% has been overcome.

2st Validation Cycle - Customers

While on the user side, the goal was to understand if *Escape* represented a pain reliever for *Escape* customer segment, on the customer side, the goal stood as perceiving if *Escape*

represented a gain creator for media agencies and consequently to advertisers. Therefore, the paramount hypothesis is: media agencies will recommend *Escape* service to advertisers as an additional mean to perform their digital marketing.

In order to test such hypothesis and perform the most accurate validation possible, selling the prototype to two media agencies was elected as the best experiment to be conducted. To perform this experiment, it was prepared a formal presentation and a pitch to sell *Escape* concept to media agencies. It was settle as well, that the minimum success criterion was having one media agency recommending *Escape* to a company as a valid alternative to do digital marketing.

Results

The first result obtained with this experiment was the approval of both media agencies regarding *Escape* concept. Both evidenced surprise, concerning the innovative way *Escape* enables them to segment and advertise, as well as enthusiasm, regarding the benefits inherent to it. Media agencies highlighted that advertisers will value *Escape* type of segmentation, as well as the possibility to display advertisements at the moment a user is performing online payments and recognized that advertising in Bank X's platforms would enhance the credibility of the brand displayed. Regarding the platform where the advertisement is displayed, media agencies also value the fact that by being part of *Escape* Advertising Network, they will know exactly on which platform the advertisement is being displayed – Bank X digital platforms. However, on platforms such as Google Display Network, for instance, the same does not occur.

The second result obtained regards media agencies' concerns vis-à-vis *Escape* service. The first concern relies on the volume of traffic within the platform and the way metrics are measured. Having Bank X less than 1 million digital users, it positions its digital platforms as less attractive as platforms like Google or Facebook, that reach millions of users. Furthermore, media agencies showed concerns about the measurement of metrics. If *Escape* traffic and user performance

metrics – such as number of impressions – were measured by an independent party and not by Bank X itself, it would consist in an additional characteristic of *Escape* that advertisers would value. The second concern evidenced by media agencies is characterized by the click rate and the rate of conversion of *Escape* platform. Despite *Escape* traffic in its platforms being considered as low, if conversion rates are higher than in other platforms, as it has been estimated, *Escape* positions itself as a very attractive platform where advertisers may invest in.

The third result regards media agencies' suggestions. In order for them to buy the service and recommend it to advertisers, both media agencies would first like to observe the proper functioning of *Escape*. That is, to witness *Escape* operating, through an MVP and with a sample of users using it and a sample of companies advertising on it. Nevertheless, even without a real live rehearsal of *Escape* performance, both media agencies revealed concrete interest in the service and look forward to see the MVP being tested. **Therefore, through the results obtained, the hypothesis is validated.**

4.2.4 Intermediary Conclusion

The *Customer Development Process* enabled to draw a set of crucial conclusions for the success of the service. First of all, it can be concluded that a service provided by Bank X, such as *Escape,* has a more beneficial impact for both users and customers rather than a service fully independent, such as *Z Card*. A service with a steady and solid customer base as Bank X's one, stands considerable more attractive to advertisers than a starting business, due to the associated web traffic its customer base generates. Furthermore, the convenience for the user is exponentially increased when the service is provided by their current bank, since it extinguishes the need to switch bank or create a new bank account – as the concept *Z Card* implied. Through this process, it has also been identified a customer segment that values *convenience* over a full reduction in their banking fees, i.e. some users rather have a smaller fee reduction if it does not require them to switch banks. Therefore, while users would question themselves on "why

should I have a *Z Card*?", regarding *Escape* the question is mostly "why should I not subscribe to *Escape*?".

Another relevant fact for the customer side, is that it has been perceived that the best method to reward Bank X clients is by their digital banking activity, instead of attributing points per each impression or click a user does. The latter strategy, would incentivize some users to generate impressions and to click intensively disregarding the content of the advertisements. This, would decrease the perceived value of each click and impression among advertisers leading to a decrease in the price per click and a deterioration of the platforms' attractiveness for advertisers. The former strategy, on the other hand, avoids this type of behavior. Additionally, in accordance with these negative behaviors, the login reward would be implemented as a "Daily Reward" feature to reward only the first login of the day. Otherwise, users would login several times a day with the aim of purely getting additional points, generating pointless impressions from the advertiser's perspectives.

Other two important facts the *Customer Development Process* enabled to elucidate, are the potentiality of the *premium webpages* concept and the importance of defining the appropriate positioning for *Escape* in the market. Advertising electricity fares, for instance, at the exact moment a user is paying his electricity bill represents a tremendous opportunity for electricity companies to acquire customers, in a way that those companies are interested in paying a higher price for those placements. Linked with this, arises *Escape* positioning. Through this process, it was able to recognize that the adequate positioning strategy to undertake for *Escape* service relies on differentiation. Although Bank X digital platforms do not generate an amount of traffic considerably attractive to advertisers to raise brand awareness, *Escape* service offers a much more qualitative segmentation than other platforms. Thus, its competitive advantage stands in its capability of providing performance metrics superior to other platforms, due to the nature of its unique segmentation and premium placements. Therefore, it has been perceived that *Escape*

potentiality is on generating sells, instead of awareness. That is, while companies benefit from higher reach in other platforms, Bank X can potentially deliver higher conversion rates.

Furthermore, *Escape* service does not characterize solely as a competitor for Google Display Network (GDN) or other advertisement platforms, but also as a complementary option for advertisers to invest on. Marketing campaigns often have the goal of raising awareness on an earlier phase while trying to get sales in latter stages, therefore, an advertiser may use GDN for the earlier stage of its campaign, to reach a great number of users, and then use Bank X platforms in order to convert that initial awareness into sales.

5 Final Conclusion

The aim of this thesis consisted on creating and validating a new revenue stream for Bank X, with a low risk associated that does not reduce Bank X customer base.

Ever since the policies undertaken by the European Central Bank, in the post-crisis context, with the strict reduction of the deposit interest rates hitting negative values, that Bank X has been severely affected in its highest source of revenue – the overnight deposits. In an attempt to survive to this drastic scenario, Bank X has increased the amount of fees charged to its clients. Nevertheless, the increase of fees stand as an unsustainable strategy due to the fact that this indirectly leads to an increase in the Bank's customer turnover rate. Aligned with that, the prominent rise of new players into the banking sector, such as low-cost banks with a value proposition focused on charging no-fees, threatens the future sustainability of Bank X's current business model.

The solution developed throughout this thesis aims to respond effectively to this decisive challenge Bank X faces and it is characterized by the creation of a sustainable revenue stream for the bank that does not reduce its customer base on one hand, and improves its value proposition, on the other.

Through the intense external and internal analysis of the surrounding environment and inherent factors that impact and shape Bank X's reality, it has been identified a group of resources held by the Bank and yet to be explored. On one hand, it was concluded that these resources have a tremendous potentiality to be monetized with third parties that truly value them. On the other hand, Bank X possesses the capabilities to explore them. Therefore, the solution emerges.

The profound dive into the intense processes conducted – *Design Sprint Methodology* and *Customer Development Process* – enabled the design of a whole new concept in the banking industry that does not only explore the potentiality of these valuable resources, but it monetizes them as well, through a win-win-win model, where every party benefits, namely Bank X, its clients and the advertisers.

Bank X *Escape* positions as the opt-in service that gives Bank X's clients the opportunity to escape from the commissions they are charged with. Through adhering to *Escape* service, users will receive contextual advertisement in their banking digital platforms and will be attributed points per each digital banking activity they perform. The accumulation of points enables a user to exchange them for financial rewards, such as a reduction in their banking fees, as well as for non-financial rewards, such as discounts in the price of products and services.

In conclusion, *Escape* concept responds directly to the challenge embraced. It generates a new revenue stream for Bank X, with a low risk associated, meanwhile improves its customers' experience, through the providence of an alternative to relieve one of their validated pains. Moreover, it stands as a revenue stream that holds low risk, due to the fact that users are only attributed points if they have generated revenue for the bank, through the visualization of advertisements during their digital banking activities.

Another interesting point, is the fact that despite not being part of the initial challenge embraced, *Escape* responds as well to another crucial challenge for Bank X – increasing the percentage of

digital users. Bank X *Escape* indirectly incentivizes any *Escape* user to be more digital and subtly tackles the past rationale “Banking is necessary. Banks are not” (Bill Gates, 1994).

6 Recommendation

The answer to Bank X’s proposed challenge is identified: *Escape*. Through the implementation of such service, Bank X creates a new revenue and provides fee reductions that will increase customer retention. For the implementation process to be successful, one shall carefully develop an action plan to identify the key activities and the associated costs drivers. Moreover, estimating the potential impact of *Escape* implementation is also necessary, as well as recognizing factors that are key for *Escape* to succeed and incorporating indicators to monitor that success.

6.1 Action Plan

The key activity that sustains the whole concept is the development of the algorithm, the major point of difference of Bank X as an advertisement platform. That is what attracts advertisers and enables the fee reductions that appeal the user side, meanwhile allows users to receive tailored advertisements. Therefore, it stands as a core factor to the success of *Escape*. When the development of the algorithm reaches its final stage, resources should start being allocated to implement the necessary tracking tools able to generate reports regarding impressions, clicks and conversions.

After owning the algorithm and being able to assess its quality, Bank X should proceed to sell the service to the customer side. Through one-to-one presentations to advertisers and media agencies, Bank X starts building its advertising network, a process that will remain necessary throughout the whole project life of *Escape*, due to the seasonality of most marketing campaigns, leading to a constant change of the advertisements displayed in Bank X digital platforms. At the same time, the user interface requires adjustment. Both platforms (website

and App) must have a section explaining the *Escape* service and enabling the client to subscribe to it.

Subsequently, the bank's advertising network is expected to reach a significant dimension to launch the service and enable clients to subscribe it. This process should be followed up by an intense marketing campaign, through owned and paid media as previously mentioned in the *Escape* business model (*Table 2*), to raise awareness among users. The key resources required for each step, are represented in *Table 6*.

ACTIVITIES	MINUTES / MONTHS						MEN	MONEY
	MAR APR	MAY JUN	JUL AUG	SEP OCT	NOV DEC	JAN FEB		
Algorithm Development							IT TEAM	INITIAL INVESTMENT 100 000 EUROS
Reporting Tools								
User Interface Adjustment								
Advertising Network							6-MEN TEAM	WAGES 168 000 EUROS
Service Launch								
Marketing Campaign								MARKETING 75 000 EUROS

Table 6: 1st Year Action Plan
Source: Team Analysis

Developing the algorithm as well as restructuring the digital platforms, which includes the implementation of reporting tools and adjustment of the user interface, requires knowledge beyond the core expertise of the bank and its employees. Therefore, Bank X must allocate up to eight months on developing the required tools before launching the product, as well as assign a specific team to this task (IT team). Bank X must assess the team's constitution and consider if it has the required human resources to do the task or if it should be outsourced. Nevertheless, the initial investment is estimated to be around 100 000 euros.

The launch and maintenance of *Escape* require a constant resource allocation from Bank X. After possessing the required tools and a significant number of advertisers in its advertising network, Bank X should assign a multi-diverse team, composed by 6 employees from different departments to be responsible not just for the launch of the service, but also for the tasks that will remain constant throughout the whole project life, such as developing marketing campaigns and managing the advertising network. Each member of the team is expected to have, on average, an associated monthly cost of 2000 euros, thus, a yearly estimated total cost of 168 000 euros. For the marketing campaigns, the initial year should incur in costs of 75 000 euros. That value will gradually decrease in the following years, since raising awareness will not be so necessary due to the higher awareness levels and since it is suggested that Bank X focus more on keeping and growing current clients rather than acquiring new ones.

The whole action plan was created with Bank X innovation team. Based on similar projects previously developed by them, it was possible to estimate the resources needed for the implementation of the project.

6.2 Key Success Factors

Multiple factors are perceived as key to determine the success of the project. To ensure its profitability, Bank X must be able to leverage the data it owns about its clients and the segmentation provided to advertisers, in order to establish a price per view high enough to provide significant fee reductions. The quality and quantity of marketing campaigns will have an enormous impact on the number of *Escape* subscribers, the ones generating the web traffic. In those campaigns, data security must be assured so the user has no problems against subscribing to *Escape*. During the promotion phase, Bank X must emphasize that no data is given to advertisers, stressing out that the advertisement's display is made through an algorithm totally owned by the bank. In accordance with that, Bank X must be the one monitoring the reporting tools. Even though advertisers favour the management of metric reports by a third

party, Bank X must be the one responsible for it to avoid data security breaches. Moreover, users also value the access to discounts of non-financial services in the reward catalogue, therefore, the bank must allocate some resources on gathering partnerships with other companies, even though that is not part of the recommended action plan for the initial year, it is a key activity to attract younger users that currently do not pay banking fees. To conclude, Bank X must have full control over the advertising network, so it can control the content of advertisements to ensure it fits users' needs, and avoid advertising competitors' products.

6.3 Possible Impact

The profitability and sustainability of *Escape* relies mostly on its revenue streams, price charged either per impression or per click, the operational costs associated with the service, the points rewarded to the clients, and the investment required. Due to the risk associated with establishing a price per click strategy, the recommendation is to rely mostly on the price per impression. Thus, the following analysis was conducted assuming that all the contracts with advertisers are established on a price per impression basis.

The estimations regarding revenue streams were based on the feedback gathered from digital advertisement experts. The average price charged in the industry per impression is 1 cent. The experts also expressed that Bank X could charge prices above the ones applied in the market, especially for the premium webpages. Therefore, the final prices considered were 2 cents per normal impression and 4 for premium ones.

As mentioned before, the points are rewarded based on the client's banking activity. Thus, in order to set the number of points per action, it is crucial to analyse how many advertisements are viewed by the user when performing each action. At first, four was established as the maximum number of advertisements per page that would not change significantly the user interface nor the user experience of those platforms. Nonetheless, it is unreasonable to consider

that every advertisement spot will be occupied, thus, an occupancy rate of 75% (it was assumed that, on average, 3 of the 4 available placements will be displaying advertisements) was considered to estimate the number of impressions. To finally understand the total of points per action, the customer journey was analysed to realize the number of normal and premium webpages the user interacts with, throughout each action. For this analysis, the data regarding logins was considered to be number of times users check their balance account and past transactions.

Even though the number of impressions relies on the used platform to perform the activities, the final decision was to reward the actions independently of the used platform, otherwise, higher rewards would be provided to the user for performing certain actions in the website instead of using the APP, which goes against Bank X strategy of educating its users to become more mobile. Considering all the above and the goal of providing significant fee reductions while making *Escape* profitable to Bank X, the team's decision was for each point to provide a fee reduction equivalent to 1.5 cents and for each activity to provide the number of points presented in *Table 7*.

	Normal Impressions		Premium Impressions		Bank X revenue		Rewards for users	
Activities	Website	Mobile	Website	Mobile	Website	Mobile	Points	Euros
Login	3	6	0	0	0.06€	0.12€	5	0.075€
Transfer	9	6	0	0	0.18€	0.12€	15	0.225€
Service Payment	3	3	6	6	0.30€	0.30€	15	0.225€
Other Services	6	6	0	0	0.12€	0.12€	15	0.225€

Table 7: Summary of Bank X revenue and clients reward per activity.
Source: Team Analysis

One may argue that Bank X is taking some risks in some activities by providing rewards higher than the revenue its receives from advertisers. However, as it can be seen in *Table 8*, "Login" is the dominant activity performed by the user, thus, the large profit margin for logins performed

in the APP compensate the losses associated with the other actions, making it a low-risk revenue model for Bank X.

Activities	Website	Mobile	**Total**
Logins	3 189 228	3 128 088	**6 317 316**
Transfers	415 992	238 519	**654 511**
Service Payment	469 947	249 253	**719 200**
Other Services	107 522	12 065	**119 587**

Table 8: Monthly average digital activity from Bank X in 2017 (data from January 2017 to October 2017)
Source: Bank X

To understand if the service is valuable from the user's perspective, it is essential to comprehend how many points will the client gather and how much will that convert into savings in banking fees. Based on the number of Bank X clients *(Appendix I)* and their monthly average digital activity expected in 2017 *(Table 8)*, provided by the bank, it was possible to estimate the activity of 3 potential digital users: low, average and heavy. Dividing the monthly average digital activity by the total number of digital users, it resulted in the monthly activity of the average user. Then, user activity is considered to be low when it is half of the average user, while the heavy user is the one who performs twice the amount of actions performed by the average user. Since Daily Rewards are limited to merely the first login of the day, a monthly value greater than 30 logins is not valid for this analysis. In accordance with that, it was able to estimate the monthly average of points and fee reduction each type of user can benefit from, as it can be seen in *Table 9*.

Activities	Low User	Average User	Heavy User
Logins	52.6	105.3	125.0
Transfers	16.4	32.7	65.5
Service Payment	18.0	36.0	71.9
Other Services	3.0	6.0	17.9
Total Points	90.0	180.0	280.3
Total Reduction Fee	1.35 €	2.70 €	4.20 €

Table 9: Points and reduction fees rewarded for all 3 possible users in October 2017
Source: Team Analysis based on data provided by Bank X

Bank X expects a constant growth of its digital users around 10% per year. In the previously conducted options test, 65% chose *Escape*, therefore, by the end of the fifth year, at least 50% of all Bank X digital users are expected to be using *Escape*. To forecast the Profit & Loss account for the next 5 years (*Table 10*) and to evaluate the project sustainability (*Table 11*), several assumptions (*Appendix I*) were considered.

	Year 0 2017	**Year 1 2018**	**Year 2 2019**	**Year 3 2020**	**Year 4 2021**	**Year 5 2022**
Total Revenues	-	2 358 459 €	3 891 457 €	5 707 470 €	7 062 994 €	8 632 549 €
Total Costs	- 100 000 €	- 2 380 848 €	- 3 725 449 €	- 5 371 591 €	- 6 600 319 €	- 8 023 057 €
Profit	- 100 000 €	- 22 389 €	166 008 €	335 879 €	462 675 €	609 492 €
Taxes	-	-	34 862 €	70 535 €	97 162 €	127 993 €
Net Profit	- 100 000 €	- 22 389 €	131 147 €	265 344 €	365 513 €	481 498 €
Free Cash Flows	- 100 000 €	- 20 354 €	108 386 €	199 357 €	249 650 €	298 973 €
Cumulative Cash Flows	- 100 000 €	- 20 354 €	88 032 €	287 389 €	537 040 €	836 012 €

Table 10: P&L for the next 5 years
Source: Team Analysis

NPV	736 012€	**IRR**	95.64%	**Payback**	2 years

Table 11: NPV, IRR and Payback for the project
Source: Team Analysis

From the positive NPV, high IRR and reasonable Payback, *Escape* is considered as a project Bank X should invest in. Moreover, those values do not incorporate the fact that *Escape* can help Bank X achieve its goal of growing the number of digital clients. *Escape* incentivizes the current clients to become more digital through the point system, and attracts new digital customers that prefer Bank X over other retail banks due to the potential lower fees. Furthermore, it was not possible to include in this evaluation potential non-rewarded revenues, such as incomplete operations (e.g. transfers or payments) that are cancelled during the procedure but still generate impressions, or even users that browse through the platforms

without performing an action. Additionally, to estimate the cost associated with daily rewards, unique logins, which are the ones performed by different individuals, should have been taken into account. However, that data was not possible to gather, thus, the analysis was conducted considering total logins instead, leading to an overestimation of costs.

6.4 KPIs

The overall impact was estimated based on the adoption rate and growth of digital users, therefore, those two rates are crucial KPIs, since the success of *Escape* is dependent on their performance.

Regarding the performance of both Bank X advertising platforms, the click-through ratio and the conversion rate must be monitored to ensure the quality of the algorithm. In one hand, if those two KPIs do not meet the expectations, Bank X is neither providing tailored advertisements to its users nor a thorough segmentation to its customers. On the other hand, if the CTR is high, then each view is generating several clicks. And if the conversion rate is high, then each click is more valuable. Hence, a price per view and click must be charged accordingly. Therefore, the cost per click is also a KPI to track.

Regarding the user side, in order to ensure the service is perceived as highly valuable, it is important that each user gathers a significant average saving. Additionally, to ensure the sustainability and profitability of *Escape*, such KPIs must be tracked alongside with the average revenue generated per user.

7 Limitations

Regarding the diagnosis part, while exploring the market, focus group were conducted. Even though valuable insights were gathered from it, the sample size and quality were limited. Time and effort are required to be part of a focus group, and due to the strict schedule and lack of monetary resources to reward participants, only few persons were interested in participating,

leading to the assemble of only three focus groups. Moreover, a significant part of the sample were friends and family, possible leading to compassionate participations aimed to please the ones conducting the experiment, while random people with no attachment to the group conducting the experiment would be more willing to give their sincere opinion, instead of the politest one.

In the prototyping phase, it was never possible to develop a MVP to sell to advertisers. To properly assess the quality of the proposal as an advertising platform, the algorithm was always requested, as well as for the reporting tools in order to attest if the unique segmentation does generate a higher conversion rate. However, developing such mechanisms would require time, knowledge and money beyond the established budget. Even for the user side, once the idea was to incorporate the concept in Bank X platforms, the MVP was no longer possible, since it would require transformations within the user's current bank, otherwise it would always be sold as a new bank account and not a complementary service.

The majority of limitations were faced during the validation phase. The non-development of the MVP was a limitation itself, since it was only possible to sell the concept and not an actual product to both user and customer side. The quality of the whole validation process could have been better if more cycles were implemented, however, it was only possible to establish two cycles due to time constraints, which also prevented from gathering a higher sample size of users for the options test, alongside with the lack of human capital. To perfectly validate the customer side, it would be necessary to sell the concept directly to an advertiser and not just media agencies, even though the acknowledgment that media agencies would suggest Bank X platforms to its clients, there is still uncertainty regarding advertisers' reaction to such suggestions.

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9 Appendices

9.1 Appendix I

DATA PROVIDED BY BANK X		
Total Clients		1,450,000
Active Digital Clients		300,000
Expected Active Digital Clients Growth Rate		10%
POSSIBLE IMPACT ASSUMPTIONS		
Reward Catalogue	Fee Reduction Rewarded	3 €
	Necessary Points	200
	Cost per point	0.015 €
Price charged per normal impression		0.02 €
Price charged per premium impression		0.04 €
Points rewarded per impression (Normal & Premium)		1
Occupancy Rate		75%
Maximum Advertisements per webpage (Mobile & Website)		4
Average Advertisements per webpage (Mobile & Website)		3
Adoption Rate of Digital Clients (2018)		20%
Adoption Rate of Digital Clients (2019)		30%
Adoption Rate of Digital Clients (2020)		40%
Adoption Rate of Digital Clients (2021)		45%
Adoption Rate of Digital Clients (2022)		50%
Digital Clients Growth Rate		10%
EVALUATION ASSUMPTIONS		
IRC		21%
Discount rate		10%