A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from the NOVA – School of Business and Economics

NOVA SCHOOL OF BUSINESS & ECONOMICS

Banco Invest – Bi Credit Consulting Project

Car Loans

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A Project carried out on the Master in Finance Program, under the supervision of:

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January, 2019

Executive Summary

According to the demands and requirements of Bi Credit for this project, the following report was developed in order to, firstly, suggest a possible way in which the bank can successfully start its operations in the C2C used car loan market and, secondly, achieve a significant market share in it.

To tackle the first goal, several options were taken into consideration, as well as their appropriateness to solve the challenge described. The exact challenge that is constraining Bi Credit from entering into the C2C used car loan market, consists in the impossibility of obtaining the typical collateral from the client in this industry and, therefore, precluding the concession of credit. This collateral is defined as being a lien on the car that the bank's client is going to purchase. The institution can't use this collateral because the seller's bank already has a lien on the car, which can only be removed when the seller pays his outstanding debt. This can be accomplished once he receives the capital from the buyer, who himself is dependent on obtaining a loan from his bank.

To solve this challenge, which does not exist in the B2B2C market since the stand acts as an intermediary, this report provides two innovative solutions. The first one consists in securing the actual seller's vehicle as its temporary collateral, until the transaction process isn't concluded. This would be accomplished through a partnership with a car park enterprise (ParkVia), where the bank would be able to secure each vehicle during the time needed, which would cost 177€ per contract. Then, once the bank has already created its own lien on the vehicle, as its permanent collateral, the buyer is free to take the car from the park. The second solution consists on temporarily granting car loans without reservation, requiring a higher TAEG, until the client provides the documents of the car, free of reservation of property. Bi Credit can then transform the contract without

reservation into one with reservation, and, therefore, lower the TAEG to the client. The implementation of either one of these methods is assumed to allow Bi Credit to start its operations in the C2C used car loan market with reservation, as a pioneer.

To tackle the second goal, and obtain a significant market share in this new market, a digital marketing plan was developed, with the aim of promoting the bank's services and obtain brand recognition. The outcome of this analysis provided the following results.

- ➢ Development of Bi Credit's website and investment in a Search Engine Optimization strategy (SEO), which will boost Bi Credit's website on search engines' ranking.
- ➢ Investment in Pay-Per-Click (PPC) advertising. These ads will increase the bank's visibility in the most accessed digital channels.
- ➢ Development of a content marketing strategy, which will promote the bank's services in a non-publicity manner. This method will lead to an improvement of customer's perceptions of the bank.

To understand the financial viability of this project, a financial plan was elaborated which, assuming a 10 year period and a discount rate of 10%, yielded a NPV of 5,581,273€, and an IRR of 66%. Since the NPV is greater than zero, along with the NPVs resulted from both the sensitivity and scenario analyses, and the IRR is superior to the discount rate, this project is assumed to be an investment with positive prospects.

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1. Introduction

Digitalization[1] has been changing industry structures by reducing entry barriers and innovating business models, which influences society and businesses. Digital technologies tend to impact customers' private lives through re-programmability, matching of data using same devices, and networks for storing, broadcasting, and sorting out digital content and self-referential nature surrendering favourable network externalities (Urbach, N. & Röglinger, M., 2019).

Towards the Banking sector, the development in technology has allowed for an evolution in the consumer experience when obtaining banking products from most smart devices. Although Online Banking allows for a faster transaction service at lower fees, some customers mistrust that service as a result of uncertainty and security issues (Lee, 2009). The auto loan market, for example, has faced recent changes following this technological paradigm.

Since the recession period (2011), people have acquired a higher bargaining power, and thus, car loans have boosted. Besides this increase in purchasing power, a decrease of the average annual effective rate, followed by an increase of the average loan term, attracted even more consumers to the car loan market. Although the digital offering of car loans is not well developed in Portugal, there are already a few institutions that grant loans via digital channels without a collateral.

Some of these institutions are Cetelem, Cofidis, Credibom and Banco CTT. This entities, however, operate in the C2C used car loan market under no reservation of property, .i.e, they provide personal loans, which the client can then use to purchase cars. This method also facilitates their transition to the online environment.

[1] Digitalization reflects the implementation of digital technologies both in business and society, such as related changes in individuals and organizations connectivity (Gartner 2016; Gimpel et al.2018).

Bi Credit also aims to have an online presence, but more importantly, to be a pioneer in the C2C used car loan market, by implementing a strategy that would allow the offering of car loans with collateral. This method would permit the bank to provide loans to consumers with lower interest rates, by holding a guarantee which acts a safeguard against consumers who default on their payments.

Despite the fact that digital channels bring several advantages to both the client and the bank, one must still be aware of the risks that online transactions bring, namely, fraud of documents, which could be used to obtain credits illegally.

The aim of this research is to solve two main challenges. Once solved, these would then allow Bi Credit to successfully enter the C2C used car loan market, with collateral,[2] and obtain a leading market share position in it. These two challenges are described in the following section.

1.1 Challenges Identified

A. Operational challenge:

In order to start operating in the C2C market, the company needs to establish a collateral from the client that could be used, so that the bank can concede the credit through digital channels, as a pioneer. Another option would be to permanently provide credit to the client without collateral, which is what other competitors are already doing. Taking into account the early stage of operations of Bi Credit (2 years), its dimensions, and a lack of a clear competitive advantage, it is considered that entering this already established and competitive market of non-reservation credits, would not be a strategic and financial wise decision. Still, an analysis of this market, and respective customers' preferences will be

[2] Only the division of the market where buyers wish to buy cars with a lien on title, otherwise, if sellers possess full ownership of the car, there is no issue for the bank.

conducted to support this decision. Considering this fact, the main focus in this part of the project is in entering in the C2C car loan market with reservation/ collateral, which is currently untapped by any credit institution.

In order to apply this business model successfully, the bank would also need to obtain exposure in this new market so that it could obtain leads that could then be converted into actual clients. This necessity leads to the second challenge of this project.

B. Marketing challenge:

By being a pioneer in adopting a new operational strategy and, therefore, start its operations in this untapped market, with reservation, Bi Credit would obviously acquire a competitive advantage in comparison with other credit institutions. Even though there are clear benefits from this first mover advantage, the bank could only start profiting from this strategy, once individual consumers gained an awareness of the firm's services.

To obtain greater exposure in this new market, Bi Credit needs to incur in an investment in a marketing strategy, with a focus on promotion. This would maximize its visibility in this market and allow Bi Credit to increase the number of contracts signed, which would eventually be translated in the acquisition of a greater market share.

Although it is usually common for car sellers to make all the arrangements regarding the car sale process, including choosing the financing institution for the buyer, it is believed that a strategic digital marketing strategy could potentially increase the number of clients that the bank could attract. This project aims to formulate a digital marketing plan, which would support Bi Credit's development in this new market and increase its market share in it.

In order to approach the two challenges previously described, the following questions were outlined.

Q1. Is there any other guarantee, aside from a lien on the vehicle, which can be realistically used as a collateral on a car loan? (4.1.1 Business model)

Q2. What is the target market and what are their preferences? (4.2.1 Customers)

Q3. Who are Bi Credit's main competitors and how does the international market differs from the national one? (4.2.2 Competitors analysis)

Q4. How exactly will the new operational processes work? (4.3 Operational plan)

Q5. How to attract leads and convert them into clients in the C2C used car loan market? (4.4 Marketing Plan)

Q6. Will this project be financially viable? (4.5 Financial Plan)

Q7. What will be the final recommendations to Bi Credit? (5. Recommendations)

1.2 Scope of Analysis

The scope of this report is to, firstly, assess the several collaterals that could be used by Bi Credit in the C2C market. As previously stated, this would be a requirement for the bank to be able to start its operations in it. Following this assessment, the collateral(s) that most fit the company's requirements and provides a new framework that would, indeed, allow Bi Credit to enter this new market, will be suggested as the one(s) to be temporarily adopted by the bank (until it possesses a reservation of property).

Secondly, an industry analysis will be conducted with the major aim of understanding customers' preferences (Millennials), the main competition and their product offering, and the industry prospects for the future.

Thirdly, assuming the company would agree with the suggestions provided in the business model, this report will focus on describing a detailed operational plan. Its aim will be to explain the new business model to be adopted in this new market.

Fourthly, there will be a shift towards the second challenge faced by the bank. To approach this issue, a marketing plan will be presented which will explain the digital promotion and placement necessary for the bank to increase its market share.

The final scope of this business plan, will be to analyse the financial viability of the suggestions provided. With the support of this analysis, this report will then provide the major results achieved, as the official recommendations to Bi Credit.

1.3 Structure

Following an introduction detailing the main two challenges faced by the bank, and the suggested approaches to them, this report begins by analysing the current literature review on two main themes:

- Consumers' perception of the car loan market and respective marketing strategies;
- Major challenges for the development of the online car loan market;

After this analysis and subsequent awareness of the existing knowledge on these themes, the methodology adopted for this project is described. Following this description, the actual business plan is derived, which is composed by five main sections:

1. Company analysis;
2. Industry analysis;
3. Operational Plan;
4. Marketing Plan;
5. Financial Plan;

This report ends with a description of the recommendations to Bi Credit followed by the conclusion of the project.

2. Literature Review

In order to understand the current academic knowledge available related to two important themes for the development of this project, this section was created. Relevant information is expected to be found, which can provide Bi Credit an insight regarding the online car loan market. Below, the information gather on both themes can be found.

2.1 Consumers' perception of the car loan market and respective marketing strategies

There is a cyclical relationship between economic growth and car loans, which is dependent upon vehicle purchases. In a recession for example, it is verified that car purchases decrease by a substantial amount, representing an outsized share of the contraction in economic activity. This is mostly justified by the less attractive auto lending conditions which increase the number of households who cannot afford to contract a loan. The results of the analysis conducted in this paper, showed that credit conditions are significantly important when considering purchasing a car, similar to the relevance of factors such as income and unemployment. It was also concluded that households are more likely to contract an auto loan in the moment when they expect interest rates (TAEG) to increase in the following year (Johnson, Pence, & Vine, 2014).

Personalization leads to greater click-through when firms use overt data collection, i.e. clients don't mind receiving personal ads based on their information as long as it was informed to them that their personal data was being used. Otherwise, if this is not consented to them, they may feel vulnerable which can translate into lower click-through. However, negative outcomes from advertising can be mitigated by posting ads on trusted websites instead of non-trusted ones. Finally, signalling trust through information icons can also offset any negative effect resulted from customers' perceptions (Aguirre, Mahr, Grewal, Ruyter, & Wetzels, 2014).

Financial institutions look for effective and efficient ways of advertising their products, such as loans, to achieve their objectives in current challenging and competitive environments. In order to better understand consumers' perception, an insight on how financial institutions employ internet and television advertising, and the effect on consumer behaviour change, should be taken into consideration. Regarding the results of previous studies, companies could benefit more by adopting internet advertising as an effective channel, instead of television. Thus, businesses should measure effectiveness of advertising strategies to ensure that the main goal of the advertising is achieved by the intended objectives of promoting and creating product awareness, as well as improve the firm's financial performance (Wanjiru, 2014).

A deep understanding on the importance of social media in marketing strategies, is crucial in order to figure out how information is transmitted and exchanged between companies and consumers. Even for a traditional and highly regulated industry, such as banking, social media has become an important and necessary tool for the marketing process. Moreover, content perceived to be created by consumers rather than companies was more effective, especially when resorting to storytelling methods. This was explained by the familiarity that other consumers bring through the content. A video advertising a bank's services created by an individual, instead of a company, appeared to increase empathy and create emotional intimacy between companies and consumers, increasing the effectiveness of the advertising strategy. The conclusion was that by becoming intimate with the customers' lifestyles, focusing on their dreams, and communicating with both digital and traditional media, banks can bring retail banking to a whole new level (Suzuki, 2014).

2.2 Major challenges for the development of the online car loan market

When a digital channel is developed to serve a product which is used to be transacted through another channel, some issues arise. For instance, emerging into an online market implies that the company needs to reach e-commerce consumers.

As a result of the growth of mobile and cloud technologies, consumers' expectations increase as they look for a more personalized experience, a preference faced by 75 percent of clients. Thus, nowadays a positive customer experience is the main competitive advantage that will attract and keep consumers. Taking into account that one of the main issues of developing a digital channel is to build a brand relationship with clients, then Bi Credit should focus on a direct-to-consumer framework which will, firstly, lead the company to control its brand's story and, secondly, messaging it instantly to its clients (Hopwood, 2018).

Regarding the current state of e-*banking* adoption in Portugal, it was confirmed that is by far lower than the one from leading European countries. The main factors which influence Portuguese customers' e-*banking* adoption, are the lack of trust and of personal contact, which prevents consumers from using e-*banking* services (Rodrigues, 2017).

The implementation of a car loan service through digital channels, will be indirectly affected by similar issues as in online banking services. First of all, one of the main challenges faced when pursuing an online car loan service, will be **security** and **privacy risk**. This refers to a possible loss occurred due to a hacker or fraud, that would compromise the bank and the consumer, thus, becoming vulnerable to lose not only monetary amounts, but also their privacy, while not being able to identify the theft (Lee, 2009).

Another issue that Bi Credit should bear in mind when handling car loans on an online basis is the **social risk**. This is characterized as the risk of consumers' opinion about the service being influenced by their family, friends, or work group's opinion which may result into a disapproval of the service (Lee, 2009).

Regarding the efficiency of the online platform when providing a car loan, **time** and **convenience** can be perceived as a risk, since the customer can consider the process as a loss of time or as inconvenient, due to difficulties faced through the navigation and delays in receiving the loan approval, and consequently the borrowed amount. Two of the key strategic points that Bi Credit should consider to avoid both time and convenience risk, is keeping the process through the website fast and efficient, and reduce as much as possible the time spent on learning how to navigate in the bank's website (Forsythe & Shi, 2003).

Bi Credit should strive to minimize the **performance risk**, thus, it should avoid deficiencies or breakdowns of digital platforms, otherwise customers will consider that their data is not secure and, therefore, will not be willing to use the online car loan service (Lee, 2009).

3. Methodology

The realization of this project was dependent on the creation of a meticulous methodology, which allowed for the development of each section of this report, and an understanding of the most suited research methods. Below, one can find the exact process which was undertook throughout the realization of this project.

1. **Meeting with Bi Credit**

During this meeting it was possible to obtain a deeper understanding of the bank's business model, the challenges that are being faced, and the general results that Bi Credit would like this project to help them accomplish.

2. **Assessment and interpretation of the problem faced by the bank**

Following this meeting, an assessment and interpretation of the two main challenges faced by the bank was conducted, which was the first step towards the planning of the project.

3. **Project planning and structuring**

After a clear understanding of the bank's situation, the exact planning of this project was discussed and developed, with the aim of accommodating the company's goals and providing an easy understanding of the report's content and structure.

4. **Review of current academic knowledge on two main themes**

Following an introduction of the current digital paradigm and the challenges it brings, as well as the content to be expected in this project, this report provides a literature review on the existing knowledge of two themes related with the digital shift previously mentioned. To gather information on these topics, digital channels were used to research for dissertations and reports which could contain information relevant for this project.

5. **Creation of business plan fitted to solve the challenges stated**

After understanding and describing the current knowledge existent and the impact it could have on solving the challenges faced by the company, the business plan section of this report was created. This would include five main sections, which will be enumerated below.

6. **Review of possible operational solutions available to the bank**

Firstly, and the main focus of the **1. Company analysis** section, an online research was conducted with the aim of understanding the possible types of collaterals that could be used in this situation, as well as their respective advantages and disadvantages. Along with this research, a brainstorming section, based on the meeting conducted with bank, also allowed for the development of two temporary collaterals that could be listed as well.

7. **Creation of a survey to understand customers' profile and preferences**

Secondly, to obtain an insight on customers' main profile and preferences, a survey was created and distributed to the main target market of the company in the near future, the Millennials. This would be the first step towards the creation of the **2. Industry analysis** section of this report.

8. **Analysis of national and international competition**

The following step would be to analyse and describe the main national competitors as well as an outlook towards the international competition. This later one, provided information regarding different ways of conducting operations, which could possible benefit Bi Credit. This was mainly accomplished by researching companies' websites, as well as any sources which could provide extra relevant information on these institutions.

9. **Assessment of industry and regulation prospects**

To understand the future prospects of the car loan industry and the regulation changes that could occur and impact the company, statistical data was collected. The aim of this process was to forecast the aforementioned goal, as well as data on future regulations to be implemented. Research of reports and articles provided by specialists, was also conducted in order to understand the main speculations on this subject.

10. Explanation and illustration of the suggested operational solution

Thirdly, after analysing the main components of the car loan industry, the most suited solutions for the operational challenge previously mentioned, were chosen as the one to be suggested to the bank. To allow Bi Credit to realistically implement these suggestions, a **3. Operational plan** was developed to explain and illustrate these concepts.

11. Creation of a marketing plan with focus on promotion and placement

Fourthly, the second Bi Credit's challenge was addressed by resorting to the creation of a **4. Marketing plan.** The methodology chosen to gather information on this topic, was based on the content of the literature review and the survey conducted. This later one, included the results of consumers' preferences regarding preferred distribution channels. Autonomous researches were also conducted, which provided information about the most used and successful digital marketing strategies.

12. Financial assessment of both operational and marketing suggestions

Fifthly, to develop a **5. Financial plan** that could provide an idea of the financial viability of the results achieved, an excel file[3] was created. This includes two financial models, used to calculate both Bi Credit's loans and the revenue to be expected, a Discounted Cash Flow model, and a sensitivity and scenario analysis, which allowed for an understanding of the impact that changes in critical variables (pessimistic and optimistic changes) would have on the bank's performance forecast. To gather the data necessary to complete the financial models, research on the current C2C used car loan market (based

[3] Print of excel file available in appendices section.

on personal loans) was conducted, in order to understand the estimated revenues that this project could potentially generate, and obtain the respective NPV.

13. Recommendations to Bi Credit

Finally, the methodology used for stating the solutions to the challenges previously mentioned, consisted in summing up the main results achieved in the business plan section of this report. Based on these results and the respective financial viability of the project, the main recommendations to Bi Credit were written down.

4. Business Plan

4.1 Company Analysis

4.1.1 Business model

As it was stated in the beginning of this project, Bi Credit's current business model follows a B2B2C approach, where the intermediary is the automobile stand. This project aims to provide a path which would allow the bank to stretch their business model by cutting off the middleman and hence, tackle the C2C used car loan market. In order to attain this goal, the company would have to use a collateral before conceding a loan to its client.

The most common collateral in this industry is to create a **1. Lien on the vehicle that is being purchased**. This is basically the result of an agreement between the seller's bank and its client (the seller of the car), which states that, while he doesn't pay the full amount of debt that he owes, the bank will be the legal owner of the car. Once the debt is fully paid, the lien is removed and the individual obtains full ownership of the vehicle. Since, in most cases, the seller wishes to sell the car, which still has a lien from his bank, it prevents the buyer's bank to create its own lien on the vehicle, and hence, eliminates the possibility of conceding the credit to the buyer. This credit would then be given to the seller of the car so that he could pay the rest of his outstanding debt.

One could also argue that, **2. An equity percentage of the house of the client** could also be used as collateral but, in most cases, this is not a viable option since the house is already mortgaged. Realistically, in case of default from the client, this would turn out to be a complicated process for the bank.

3. The income of the client or savings account could be used as well. The income is not a preferable option due to future uncertainties regarding the availability of the capital, as well as legal implications that would have to be incurred. Savings account could be considered whenever the client has the capital available to buy the vehicle, but doesn't wish to fully drain its account on the car purchase. This is of course dependent on the availability of the capital, which in this market is not a very likely scenario.

Finally, the last collateral that it is believed to be a new innovative approach to this problem, and currently the best option available to the firm, is to find a way to **4.1. Temporarily secure the seller's vehicle until the bank possesses its own reservation of property**. Since the seller's bank has already a property reservation on the car as collateral, the buyer's bank could use the actual vehicle as its temporary collateral. Once the car is free of reservation of property, the bank would then create its own, replacing the vehicle as collateral.

This could be accomplished by establishing a partnership with a park car entity, such as ParkVia, or by buying/ renting a physical space where the bank could retain the vehicle during the time required. By following this process, Bi Credit could then concede the amount of debt owed by the seller of the car, which would lead to the elimination of the reservation of property from the seller's bank, and consequent creation of a new one from the buyer's bank, which would then remove the car as the temporary collateral. Following this event, the new reservation of property would be the new collateral and the client would be free to take the car. This physical space would simulate the intermediate job of the automobile stand which, in the B2B2C model, would secure the car until the buyer finally purchase it. In case the bank chooses a partnership, with ParkVia for example, it is assumed that, since this is a deal which would benefit both parties, there would be no costs incurred for the bank.

Alternatively to this option, the bank could also **4.2. Provide a temporary personal loan**, which would require the client the initial payment of a higher TAEG. The client would then receive the capital necessary to pay the seller, and once the car is free of reservation of property, and the client had all the documents necessary for Bi Credit to create its own, the bank would then change this loan to one with reservation, and consequently decrease the TAEG charged.

Taking into account the feasibility of these last approaches **(4.1. & 4.2.),** and that the bank would indeed agree with their implementation, it is assumed that this new business model would allow Bi Credit to enter the C2C used car loan market and start its operations in it.

Despite the fact that these suggested collaterals may seem the most appropriate when providing a general car loan, there are other examples of collaterals that can be used according with the type of client, their possessions, and availability of the collateral itself.

One common collateral is to use **5. Another vehicle that the buyer already owns.** This, of course, is limited to clients who have a second car, their willingness to use it as collateral, and the nonexistence of outstanding debt on that vehicle. Another limitation of this collateral is that the value of the existing car may not be enough to cover the entire loan amount needed to buy the new car.

6. Investment accounts, which can be represented by bond or stock certificates, for example, can also be used as collateral for a car loan. Although this could be beneficial to the client and the bank, in Portugal, the number of people among the target market, who hold such investments, is not significant to consider this option.

Both these options are, indeed, a collateral possibility, but due to the lack of availability in most cases, it is believed to be risky for the bank to mainly rely on them as a standard collateral in this new market. That being said, these should not be excluded but considered only when the client is fit for their use and whenever they can provide greater profitability to the bank than the main ones previously suggested **(4.1. & 4.2.)**.

4.1.2 Competitive advantage

According to the information provided by Bi Credit, the company assumes its current competitive advantages as being the following. The first one, is related to a well-established team cohesion between each member in a department and between departments as well, which translates into greater productivity as well as superior performance. It is believed that the current dimensions of Bi Credit justify this competitive advantage in comparison with other larger specialized institutions. The second competitive advantage, in the B2B2C model, concerns the bank's active presence in many automobile stands, which is the result of a well-established distribution channel.

Once the company starts its operations in the C2C market, as a pioneer, this first mover advantage will also translate into a new competitive advantage. This can benefit the company by promoting, early on, its brand name recognition among consumers who weren't aware of any bank operating in this market, as well as creating brand loyalty with these consumers by establishing an excellent reputation in terms of quality of service.

4.2 Industry Analysis

4.2.1 Customers

A. Target Market

Population, in general, is always connected with the internet, they purchase, compare, and perform everything online. Regarding the market of car sales, potential buyers, essentially Millennials, usually spend a considerable amount of time searching for the right car on online platforms. Considering the current demographic evolution, Millennials will be the main target market.

Since 2014, Millennials have been increasing their demand for auto loans as the upper age of that generation are now creating their family, getting higher paying jobs and even becoming financially independent. To further understand the target market's profile and preferences, a survey was created to support this consulting project (see exhibit 1). From a sample of 182 answers, the first results showed that 18% are willing to use a bank's website to get a car loan and 9% to use a mobile app.

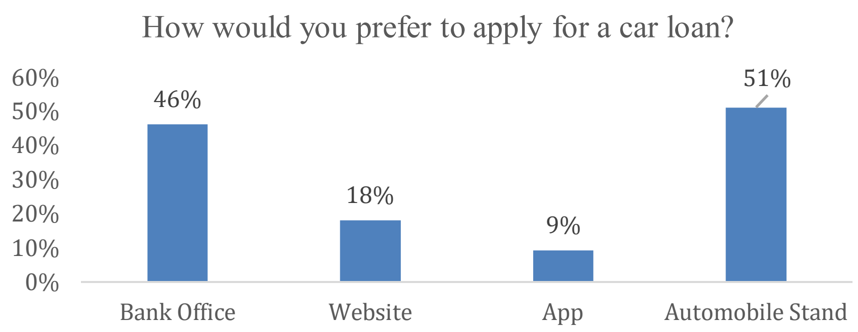


Figure 1: Questions survey results, n=182. Preferred distribution channels for a car loan application. Source: The Author

Following the question "Are you interested in getting a car loan in the following years", 7% answered "yes", 27% "maybe" and 66% answered "no", and thus the company's potential clients will represent 34% of the target market. From these, 16% would be willing to acquire a loan through the website and 8% through an app.

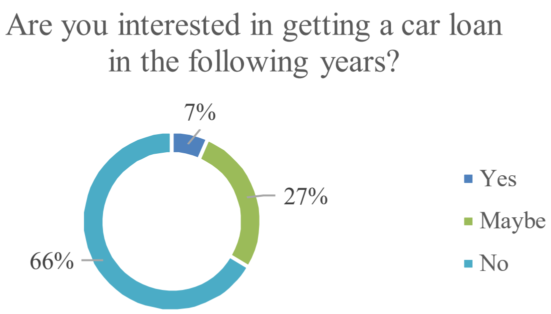


Figure 2: Questions survey results, n=182. Percentage of people interested in getting a car loan in the following years. Source: The Author

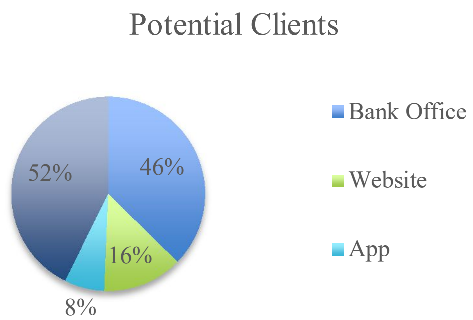


Figure 3: Questions survey results, n=182. Preferences of potential clients. Source: The Author

Most answers were from individuals aged from 18 to 24, which represents 60% of the sample. Concerning the use of digital channels to apply for a car loan, individuals whose ages are comprehended between 18 to 24 and 25 to 30, were the ones who showed greater interest in using both the website and the app to obtain a car loan, while individuals older than 30, who answered the survey, were not willing to apply online for a car loan.

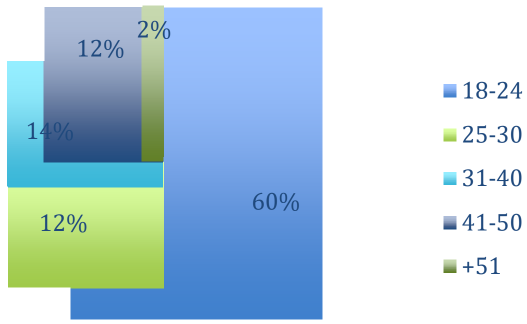
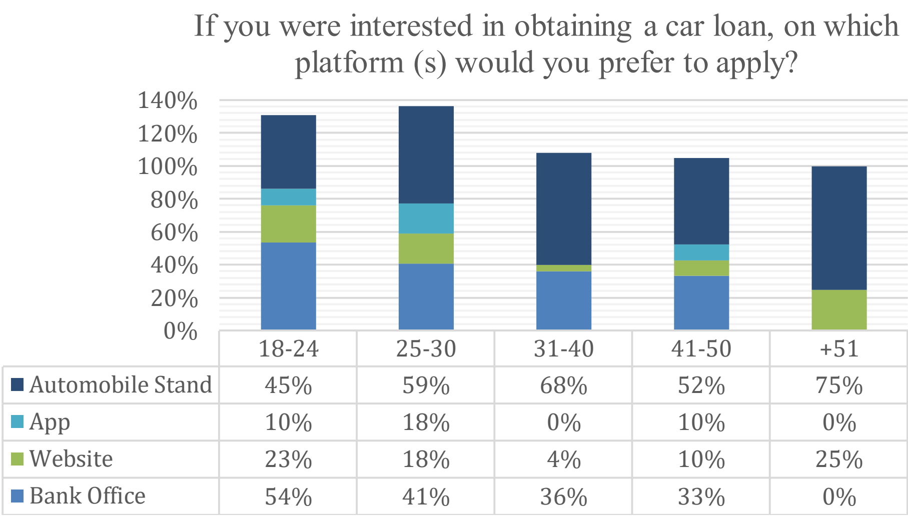


Figure 2:Questions survey results, n=182. Age Distribution. Source: The Author

Although 45% and 54% of individuals aged between 18 and 24 still prefer obtaining a car loan respectively at automobile stands and bank facilities, 23% are already willing to apply through the bank's website and 10% through a mobile app. The same situation is observed with individuals aged between 25 and 30, who prefer to apply for a car loan at the automobile stand, 59%, and on the bank directly, 41%. However, 18% of them are willing to apply for an automobile loan through an application, as well as 18% who responded they would use the website to apply for a loan.



	18-24	25-30	31-40	41-50	+51
Automobile Stand	45%	59%	68%	52%	75%
App	10%	18%	0%	10%	0%
Website	23%	18%	4%	10%	25%
Bank Office	54%	41%	36%	33%	0%

Figure 3: Questions survey results, n=182. Level of interest of the sample in using each way to get a car loan. Source: The Author

Furthermore, according to the survey, it was possible to obtain data on the relevance of the characteristics of the contract, namely the interest rate, term of the contract, and the time interval between the request for credit and the reception of the capital in the respective bank account.

Despite the fact that this is an online car loan application, 81% of potential clients consider the interest rate as the most relevant feature, 61% consider the contract term, and, finally, merely 36% consider the time spent between the approval and the reception of the capital in the account, as the most relevant feature.

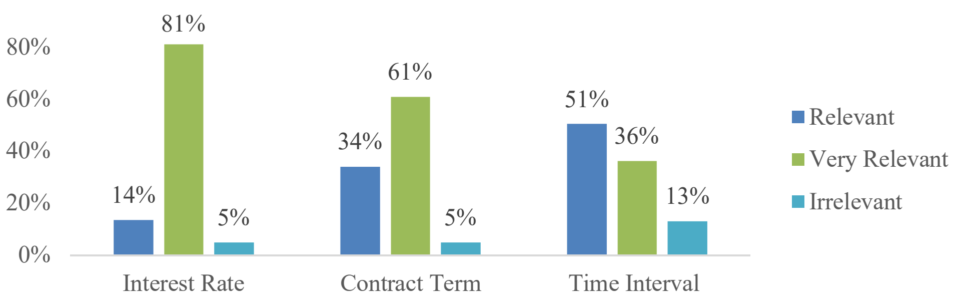


Figure 4:Questions survey results, n=182. Relevance of each contract feature. Source: The Author

Taking into account the fact that most individuals would not resort to a mobile app to ask for a loan, it is assumed that this distribution channel can be neglected, and hence, it is not advised the investment in the creation of one. Moreover, it was verified that Bi Credit already has a mobile friendly website, which satisfies a current trend regarding the greater use of mobile devices instead of computers/ websites, to traffic the internet.

B. C2C used car loan market without reservation

As explained in the introduction of this project, one option to solve the operational challenge mentioned was to provide credit without collateral, on a permanent basis. This would be characterized as a personal loan which would be used with the intention of a vehicle purchase. Bi Credit would, indeed, be able to start operating in the C2C used car loan market under this method, but to do so, the bank would have to increase the interest rate (TAEG) charged on the loans provided.

Considering the results of the survey conducted, 81% of the target market, who filled this questionnaire, answered that the interest rate is a significantly important factor when considering contracting a loan, and the most important of all the three factors presented in the survey.

Taking these results into account, it is considered that if Bi Credit followed this path, and provided personal loans instead of direct auto ones, it would decrease the number of contracts provided, and hence, incur in major losses. As suggested in the introduction of this report, it is not advisable for the bank to permanently compete in the C2C used car loan market without collateral.

4.2.2 Competitors analysis

A. In Portugal

To better understand the used car loan market, it is important to realize the characterization of the direct and indirect competitors, as well as their strengths and weaknesses.

In Portugal, a range of five banks and three specialized credit institutions were considered in this study. In order to compare the interest rate across banks that allow for an online simulation, the interest rate (TAEG) will be computed for each, considering a standard loan of €10.000 for 96 months.

BPI

BPI is a Portuguese commercial and investment bank which offers car loans with a maximum term of 120 months. It allows customers to simulate a car loan at BPI's website as well as compare different simulations adjusting the vehicle price, the term, and the initial assigned amount. However, it does not give the option of getting the credit online. Regarding a car loan for a used car, on the basis of €10.000 and a term of 96 months, the TAEG will be **8.5%.**

Millennium BCP

Millennium BCP is a Portuguese commercial bank that provides auto loans, whose term can be at maximum 96 months. Moreover, its service does not offer a simulator option and, therefore, does not offer the possibility of obtaining a loan online, thus, the bank office is the only place where customers can do a simulation and obtain a car loan. Under predetermined conditions, auto loans for used cars at Millennium BCP present a TAEG of **8.5%**.

Novo Banco

Novo Banco is a Portuguese bank introduced on the 4th of August, 2014, as a result of BES bankruptcy. It offers car loans, in which the contract terms range between 6 and 120 months and the amount that can be borrowed varies from €2.000 to €75.000. For a used car loan simulation with an amount of €10.000 for 96 months, the TAEG is **9.7%.** Although car loans cannot be granted online, a simulation can be performed.

Caixa Geral de Depósitos - CGD

CGD is a public Portuguese bank which offers a car loan service with reservation and a maximum term of 96 months for used cars with a TAEG of **8.3%.** CGD does not offer the option to simulate online the acquisition of a car loan with reservation of property.

Banco CTT

Banco CTT is a banking subsidiary that belongs to the Portuguese postal services company CTT. Apart from all the banking services, Banco CTT offers a digital option for consumers to obtain an auto loan without reservation which, not only allows them to simulate a loan online, but also apply for one. If approved, within 48 hours, customers receive the money directly on their private account. Regarding a simulation of an auto loan for a used car for 96 months and an amount of €10.000, the TAEG is **11%.** Moreover, it provides car loans with 100% financing for amounts ranging from €5.000 up to €50.000. The contract term goes from 24 and 120 months.

Cofidis

Cofidis is a financial institution specialized on consumer credit. The car loan presented by Cofidis has a maximum term of 96 months and TAEG of 11.5% for a loan of €10.000. Customers can both perform an online simulation and obtain a car loan online, by uploading the required documents.

Cetelem

Cetelem is a financial institution which belongs to the French group BNP Paribas. Regarding the term of a car loan contract presented by Cetelem, it ranges between 24 and 120 months, and the borrowed amount ranges between €2.500 and €50.000. Customers can perform both an online simulation and acquire a car loan online by uploading the required documents. For a used car loan of €10.000 and a term of 96 months, the TAEG will be **11%.**

Credibom

Credibom bank is a subsidiary of the Credit Agricole group, and its core business consists in providing loans. Credibom business model operates under no reservation of property which allows its customers to get a loan approval online and the capital directly in their private account. Regarding used car loans, the terms vary between 24 and 120 months, and the borrowed amounts range from €5.000 to €50.000. For a used car loan of €10.000 and a term contract of 96 months, the TAEG is based on **11.1%.**

Regarding the Portuguese credit market, used car loans with reservation/ collateral are not yet developed through digital channels. However, from the aforementioned competitors' analysis, some institutions already offer car loans online, but without reservation, as these kind of loans are much less complex and easier to be implemented in an online basis. To compensate the risk of not having a collateral, these institutions offer a higher TAEG when compared to loans with collateral. See exhibit 2 to compare the contract term, TAEG, simulation, and availability of online distribution channel, among the Portuguese institutions described, for a general loan of €10.000 for 96 months.

B. Outside Portugal

To obtain an insight regarding different practices and business models present on different countries, an international analysis of the auto loan industry was conducted. This research was realized with the aim of possible finding new operational methods that could provide Bi Credit with a new competitive advantage. Below, an analysis of a few international credit institutions is described.

Bank of America

Bank of America is an American multinational bank which already allows for both an online simulation and application for car loans, through its partnership with DealerTrack. By using DealerTrack's[4] auto finance platform, online banking customers who purchase an automobile from another individual, can "apply online for a private party loan". Private party auto loans consider the vehicle as a collateral, which allows the bank to offer lower interest rates. Although this allows the bank to operate in the C2C market, it is constrained to situations where the seller has full ownership of the vehicle. This situation applies to every other bank, which operates in this market, in this analysis.

In 2017, Bank of America has reached a market of more than 22 million users expanding its banking technology via mobile. Auto loans grew 12% compared to the previous year from which 22% represented sales via digital devices. This international outlook provides an idea of the international used car loan market as well as its growth and prospects for the future.

Following an online application, vehicle information will be required such as the year, model, make, mileage, trim and the Vehicle Identification Number (VIN). Loan approval can be realized immediately or, if the Bank needs more time or information, it will e-mail its client with a decision within the next business day.

If the loan is approved, Bank of America will pay the seller or the lienholder the amount that the client owes. Moreover, regarding the online application process, customers should submit additional requested documents including registration or title, and the seller's payment letter from his existing funding source, if applicable. Customers will, if approved, receive a check allocated to the seller, however any outstanding guarantee

[4] Leading provider of integrated dealerships technologies and the only provider of automotive retail solutions.

surplus will be given to the guarantee holder, then the remaining funds will be sent either by check or credited directly in Bank of America customers' account (America, s.d.).

Emirates Islamic Bank

Emirates Islamic Bank (EIB) is an Islamic bank in Dubai, United Arab States. EIB comprises an attractive auto financing, with online simulation and application. Moreover, the auto loan has a flexible repayment up to 60 months. Since the vehicle is the contract's collateral, customers that wish to buy a new car will be required to deliver a pro-forma invoice, while if it is a pre-owned car, a valuation certificate released by an Emirates Islamic official dealer, an ownership title, and an offer or quotation to sell for current vehicle owner's bank, will be required.

BankNewport

BankNewport is one of the oldest banks in United States, a community bank that is serving Rhode Islanders for nearly 200 years. BankNewport's clients have already the option to apply online for an auto loan by providing all the required information on the application form. Auto loans' term can go up to 72 months for new auto loans and up to 60 months for used auto loans. Both new and used car loans are subject to collateral. Applying online for an auto loan, requires the bank's customers to deliver a copy of the purchase and sales agreement. Moreover, through the application process, available on the bank's website, information about the vehicle is required such as the make, VIN, model number and year, since the vehicle that is being purchased will be the loan collateral.

HDFC Bank

HDFC Bank is an Indian bank which offers a wide range of personal banking services. Through the bank's website, customers can conduct a simulation and then apply online for a car loan. When applying for an auto loan, besides age, income, identity, and proof of address, a copy of the car documents (registration certificate, insurance policy and tax papers) should also be submitted. The funds will be available within 4 hours in case of new car loans and within 48 hours for pre-owned car loans. Regarding the maximum contract term, new car loans tenures to 84 months while used car loan term goes up to 60 months.

Bank of Baroda

Bank of Baroda is a state-owned international financial institution based in India, which comprises a broad range of banking services. Regarding auto loans, the bank allows for an online simulation and application on its website. All vehicles financed through Bank of Baroda car loans are hypothecated until the client pays its outstanding debt. The maximum repayment period is 84 months. Concerning the application process, customers must fulfil and submit the application form available on the website and be willing to send any additional information required by the bank.

Regarding the international car loan market, it was found a range of banks that already grant automobile loans with collateral via online, revealing that entering into the C2C market is already possible in some countries outside Portugal. This is only verified though, under a situation when the seller is the full owner of the vehicle. In order to keep the vehicle as a guarantee, specific information and documents about the vehicle which is being purchased, are required by all banks which allow for an online application for a car loan. For instance, when entering into the C2C market, Bi Credit should require each customer to upload specific information from both the vehicle and the client. From the vehicle, it should be expected the year, model, make, mileage, VIN, registration or title, seller's payment letter from the existing funding, if applicable, and insurance policy. The client's information should include information such as age, income, identification, and proof of address.

4.2.3 Industry growth

Taking into account the fact that sales of new and used cars have been growing substantially over the last years, levels of credit penetration and their respective amount have been raising as well. According to Bank of Portugal, an increase of the average contract term alongside with a decline in the costs associated with credit, were key factors that drove the growth in the car loan market from 2016 to 2017. On one hand, for both used and new cars, the average contract term increased to 7.1 and 6.4 years in 2017, while it was 6.6 and 6.2 years in 2016, respectively (see exhibit 3). On the other hand, the average interest rate declined 0.4 percentage points in between the four trimesters of 2016 and 2017 (see exhibit 4).

In 2017, the amount of capital granted through used car loans, with property reservation, increased 24.6% in comparison to 2016, as well as the number of car loan contracts, which increased 16.5% compared to 2016 (see exhibit 5). The average amount, per contract, was €14.000 last year, revealing an increase of €700, per contract, in comparison to the previous year.

Moreover, in Portugal, the number of contracts of used vehicles represents more than 3 times that of new vehicles' contracts, which represented 59.3%, in 2017, of the total amount granted within car loans. However, both new and used cars have been increasing over the years, whereas the new car segment reached an increase of 5.2% and the used cars faced an increase of 13.2% (Trends et al., 2017).

The average monthly amount of car loans granted in 2017 exceeded the amount recorded in 2010 by approximately 56 million euros, the year preceding the contraction in consumer credit.

Following a similar path as car loans, personal loans also faced a decrease of the interest rate and an increase of the contract term, which contributed to a greater demand for credit year after year. The number of personal loans granted increased 5.3% and the credit amount grew by 8.4% in 2017. In 2016, there was a growth of 8.3% and 16.1%, for the same variables, respectively. From the personal loan segment, the sub segment "other personal loans", which includes loans characterized as "without specific end", "home end", "consolidated credit" and "others ends", represents 98% of the total value of personal loans, whereas the remaining 2%, represents personal loans used for education, health, renewable energy and equipment leasing (see exhibit 6).

4.2.4 Market share

Although the company has only been on the market for two years, its market share has been steadily increasing. During the first semester of 2018, Bi Credit reached its highest average market share value, which consisted of 6.7% of the market of used auto loans. Since it started its operations in 2016, its growth has been consistent revealing a solid market share acquisition.

Taking into account the fact that auto loans have been increasing over the last few years, and are expected to actually reach a higher level in the future, Bi Credit has the opportunity to attain an even higher market share, without actually capturing the ones from its competitors in the B2B2C market. This would be accomplished by tackling into this new C2C market of auto loans, which is currently untapped by any institution operating under a reservation methodology. Once operating in this market, the bank will be able to capture a new type of customer, of which millennials will occupy the greatest slice. Since this target market is characterized by a greater adoption of digital channels to conduct their purchases, an investment in a stronger online presence will also contribute to a greater market share acquisition.[5]

Since the market share is based on the portion of the company's revenues divided by total market revenue, the future market share of the bank will adjust according to changes in the market value as well. If Bi Credit goes ahead with this project, it will be differentiating itself from its competitors, which will then allow for a higher increase in its revenues in comparison with the average increase from other institutions. This will result in a greater percentage increase in revenues in relation to the percentage of market increase. The outcome of this situation will consist in the acquisition of a total market share (from the two markets) higher than its current one of 6.7%, from the B2B2C market only. The expected yearly market share obtained by the bank in the C2C used car loan market, will be referred in section 4.5.1 of the Financial Plan.

4.2.5 Regulation

The growth of commercialization of banking products and services through digital channels requires a deep supervision regarding the information needed as legal requirements.

According to *Carta Circular* emitted by Bank of Portugal, before Bi Credit starts to grant car loans via online, information about the contract process, security mechanisms implemented and loan features should be provided to *Bank of Portugal*. Moreover, at least 10 workdays before the implementation of digital channels to grant car loans, Bi Credit should deliver the following information:

[5] Digital marketing strategy described in Marketing Plan section 4.4.

- Survey attached to the current *Carta Circular;*
- Pre-contractual documents regarding the loan;
- Loan technical sheet.

4.3 Operational Plan

Regarding the challenge previously stated in the business model section of this report, there are two possible solutions that can be applied.

Solution 1:

Secure the seller's vehicle until the bank possesses its own reservation of property. In order to clearly transmit this idea and allow the bank to realistically implement this suggestion, this section will consist of an explanation of the process and illustrate it with an example.

Before being able to start its operations according with this business model, Bi Credit would have to either establish a partnership with a car park entity, or buy/ rent their own physical space, where they would be able to securely keep the vehicle, while the transaction process is not completed. Taking into account the existence of firms that already possess car parks, it would be preferable if Bi Credit establish a partnership with such companies. Parkvia, is an example of a company which also provides security and other amenities. After this is arranged, the bank could then start the actual process with its clients.

Taking into account the existence of some constraints regarding the exact way in which Bi Credit conducts its operations with clients, the following process will be on a hypothetical basis.

The first step the company would have to incur in, would be to find a valuation figure of the car itself. For illustration purposes let's assume a car with a current valuation of 10,000€.

Secondly, the bank would meet with both its client (the buyer) and the seller of the vehicle. In this meeting they would sign a contract explaining the transaction process as well as all legal implications attached to it. Once the contract is signed the seller must then take the vehicle to the bank's park and leave it there as the bank's temporary collateral.

Thirdly, as Bi Credit is notified of the vehicle delivery, it can then proceed to provide the amount of credit necessary for the seller to pay his/ her outstanding debt. Assuming the seller still owes 3,000€ to his bank this would be the amount provided. To facilitate this process, the bank could conduct this payment directly to the seller's bank, on his behalf, instead of providing it directly to the seller.

Finally, the seller of the car could then pay his/ her own bank, removing the lien on the vehicle. This would take around 15 days to take effect, plus other 15 days for the buyer's bank to create its own reservation of property. Taking this duration into account, plus the usual procrastination of clients in fastening this process (payments, delivery of documents, meetings, etc.), it is estimated that the car would have to remain in the park for a total period of around 6 weeks. Considering the weekly average cost of 29.5€, per car, the total cost per contract would amount to 177€.

The remaining amount of credit (7,000€) would be provided to the seller only when the buyer's bank already has its own reservation of property on the car, which would be its permanent collateral. Once this is accomplished, the buyer is free to remove his new vehicle from the bank's park, the seller is free of debt and in possession of the remaining capital resulted from the sale, and the buyer's bank has a new loan contract with the buyer of the vehicle.

<u>Solution 2:</u>

Another solution to this challenge, would be to **temporarily (1st 3 months) provide a car loan without property reservation**, charging a higher TAEG (11%), which would be higher than the one that is offered in the current business model of Bi Credit (8.5%). This would be similar to the way other credit institutions already operate in Portugal.

Moreover, when clients provide the car documents, namely the VIN and registration, Bi Credit will transform the initial contract without reservation into a contract with reservation of property and lower the TAEG to 8.5%, until the end of the contract.

Running this solution will benefit the buyers, since, although they will apply for a car loan with an initial higher TAEG, afterwards, they will be paying less than if they would apply for a contract with any other credit institution. Bi Credit will also benefit the seller by giving them a commission of 177€, which would be the amount the bank would have to spend in case the client chose the car park option instead.

Finally, Bi Credit will benefit from implementing this solution as it will be the first bank in Portugal that offers an online car loan with reservation, in the C2C car loan market, along with a competitive TAEG as well.

4.4 Marketing Plan

This section of the project will focus on suggesting measures that would allow the bank to achieve a greater exposure in this market and increase its number of leads. These suggestions will be based on current promotional strategies, resorted by national and international competitors, as well as on current research regarding the most used digital channels by millennials, and the necessary strategies to increase visibility in these places.

Along with this initial focus, this part of the project will also aim to suggest a path which would contribute to improve a current alternative distribution channel (website). The relevance of this channel to the consumer, and the consequent investment expenditure, will be based on the results of the survey conducted.

In sum, this digital marketing strategy will narrow its focus towards two components of a standard marketing strategy.

➢ **Promotion** - Attraction of leads through advertising strategies.

➢ **Placement** - Increased conversion rate of leads into clients through improvement of their preferred distribution channels.

4.4.1 Website development and SEO (Placement and Promotion)

Taking into account the current underdeveloped stage of Bi Credit's website, this measure would first focus on developing this distribution channel so that the company could start operating online and provide its services through its website. Once this milestone is accomplished, a shift towards its promotion would be taken. In order to prioritize Bi Credit's website in a typical google search, this report suggests that the company invests in a Search Engine Optimization (SEO) strategy.

A SEO strategy refers to a set of practices aimed at convincing search engines that this particular website is a better match with the words that the individual chose for his specific search. This would result in achieving a top spot in a google or other search engine, thus, increasing the likelihood that the individual chooses this website instead of another. This strategy will increase the amount of leads the company receives. The extent to which the website page climbs the google ranks is obviously related to the amount of investment the company undertakes. One advantage of this method over paid ads is that this one is often seen as more credible in the minds of customers. A disadvantage, though, is that the bank will be directly competing with other institutions targeting the same audience.

A well-developed SEO strategy should take into consideration the following ranking factors.

➢ **Links:** This is related to the extent of which Google sees the respective website as relevant or not. Being in a position of recommender, Google has a certain authority of domain upon the website. If a website's link is clicked several times by consumers, it will be better regarded by Google, and hence, better classified in a typical search.

➢ **Content:** The content of the website itself is also a critical ranking factor in a google search. The relevance of the information presented, the extent to which the results presented satisfy the consumers' demands, and the experience and easiness provided while navigating the website, are all examples of a well-developed content.

➢ **RankBrain:** This is characterized as a Google search engine that uses machine learning and artificial intelligence to find pages that have a strong relation with the terms researched by the user, even if these don't include these terms in its content. In this case Google searches for the theme related to the words used by the user and not the exact words themselves. This is believed to be the most important ranking factor in the future.

➢ **Key-words:** This consists on an attempt from the website to increase the likelihood that the typical words used in a google search, like "financiamento automóvel", are a match with the website's own vocabulary choice. These common search words can be included in the website's title page, URL, heading tags, alternative image texts, images archive names, etc. Although these are considered to have a less impact as ranking factors, it can still be relevant if conducted properly.

These are the four main ranking factors that should be considered when developing a SEO strategy. To develop this strategy Bi Credit can either develop it themselves, which can be accomplished by incurring in minor or even no costs, or by hiring a specialized technician or SEO agency which could do it for the bank.

4.4.2 Pay-Per-Click advertising (Promotion)

Even though SEO is one of the most effective digital advertising strategies, it can be difficult to achieve a permanent position in the first page of Google. In addition to this strategy, Bi Credit can resort to Pay-per-click models (PPC). This means acquisition of ad space that is only paid when someone clicks on the ad. Unlike the SEO strategy, where the results of the search are organic, with PPC ads, the bank doesn't have to worry about ranking up in a Google search. This is due to the website being permanently visible on top of the first page, as advertising, anytime a search related to its services is conducted.

Google AdWords, are one of the most popular forms of PPC advertising. It allows companies to bid for an ad placement in the respective Google page, whenever someone searches a keyword that is related to their business offering. Every time the ad is clicked, sending the visitor to Bi Credit's website, the bank has to pay Google a small fee.

Google's selection criteria is based on a process called the advertiser's Ad Rank, which is calculated as the multiplication of two key factors, the CPC Bid (the highest amount the advertiser is willing to spend, i.e., his WTP) and the Quality Score (a value that translates the click-through rate, relevance, and landing page quality). Google then digs into the pool of ads from different advertisers, and chooses a set of winners to appear in the valuable ad space on its search results page. A company that has a superior Quality Score than others, might be willing to pay less, and hence, lose the "bidding auction", but still be picked by Google and appear on its page.

Furthermore, with this method, the bank is also able to decide which geographical locations it will expose its ad, making it more likely that it will be seen by their target audience. Besides Google, there are several others digital channels where Bi Credit could benefit from PPC advertising. Ads can be placed in front of people watching videos on YouTube, using Facebook, and much more. The only constraint is that, as with SEO, the bank should make sure that segmentation is being used to get the right ad in front of the right audience.

4.4.3 Content Marketing (Promotion)

As it was seen in the literature review section of this report (2.1), advertising strategies tend to be significantly more effective whenever they do not appear in an add form. Taking this fact into account and considering the new business model to be adopted by the company in this new market, a content marketing strategy seems to be a suited method to promote the bank's services, as well as explain the new operational plans to customers. This marketing method has also been proven to increase banks trustworthiness and perceptions among clients.[6]

Content marketing consists in using educational materials to stimulate interest in the company's product or service. This could mean creating videos or an eBook that teaches people how to obtain a mortgage, especially under the new method. There are several advantages that content marketing can bring, and the following will be explained below.

1. **Greater reach among Millennials and younger generations**

As it was stated in the target market section of this report, Millennials will soon be the target market of the bank. This customer segment is seen as more difficult to be reached through typical advertising strategies. Being constantly on their mobile devices and

[6] Article available in references

navigating through social media channels, there is need to also consider promoting one's services in social media websites. Creating user-friendly videos on Instagram, for example, could be an appropriate strategy to reach these consumers.

2. **Provides an organic way to reach consumers**

Resorting to this non-promotional strategy provides Bi Credit an opportunity to be perceived in a positive, trustworthy light. On one hand, when banks pay for ads, consumers know they're seeing an ad and often discount what is being presented therein. On the other hand, when they produce content like blog posts, videos, social posts, and whitepapers, they achieve a way to get in front of customers with information that does not appear promotional.

Many customers would actually be interested in hearing what one has to say, as long as it does not appear in ad form. So the bank can get in front of their audience, demonstrate their experience, be a resource to them, promote themselves (subtly) and still be trusted. On top of this, Bi Credit also has the opportunity to educate the consumer using all the online content produced, and clarify any doubts they might have about the business.

3. **Allows the opportunity to become more targeted and personalized**

Another concept that was learned through the elaboration of the literature review section, was that personalization leads to greater advertising efficiency. For example, assuming two different large groups of customers, one can design a content strategy to appeal to each one in different ways.

To baby boomers (older consumers), one might provide information in a more traditional and simpler way, whereas to Millennials, the bank could release short videos in social media explaining the business model and showing the several benefits of choosing Bi credit. This kind of targeted, personalized approach allows the opportunity to satisfy customers' unique needs and stages of life, and connect them with the information they wish to obtain in the best possible format.

4.5 Financial Plan

Taking into account that currently no credit institution has been able to tap into the C2C used car loan market with reservation, it is assumed that these consumers have been financing their vehicle purchases with personal loans, which don't require any collateral. Since this is not as financially attractive as auto loans, it is also assumed that consumers who might be interested in buying vehicles from other individuals, might either change their preferences towards buying a car through an auto stand, where they can obtain auto financing, or even delay their purchase until they have the capital available. Considering these facts, it will be assumed that the non-reservation/ C2C auto loan market and its respective current figures, will be used as data to fulfil this section, along with the potential new consumers who will be dragged along from the auto loan market with reservation.

As Bi Credit does not operate in this market yet, it is important to be aware that the following financial analysis will be driven with some degree of uncertainty. To counter this fact, a sensitivity and scenario analysis will be conducted to understand the impact of changes in critical variables. This plan will provide information regarding expected revenues and additional costs from the suggestions presented, as well as a DCF model with the intent of achieving the NPV and IRR from the whole project. Finally, three KPIs will be described, to assist the company in measuring its performance throughout the implementation of the project. The time frame used for the financial analysis comprises 10 years since the launch date. Since this period (120 months) is greater than the average loan term (88 months), Bi Credit will be able to realize the total amount of yearly interest earned per loan, in the long term (steady-state).

4.5.1 Revenue forecast

To forecast the revenues that Bi Credit is expected to acquire, the impact of both operational and marketing plans described will be analysed together. The methodology used to accomplish this goal will consist in finding the size of the C2C used car loan market. To do so, this section will consist on calculating the total number of personal loans provided in Portugal, per year. Following this step, research towards deducting the percentage of this loans which are used to purchase a vehicle from another individual, will be conducted. Finally, once acquiring the previous figure, multiplying it by the average personal loan provided to this end, will provide the size of the C2C market.

It is assumed that the efficiency of this project is dependent on the successful implementation of both plans, and not just one or the other independently. Considering this fact, it is assumed that the expected increase in client acquisition will be due to both the new operational plan, which will allow the entrance in the C2C market, and the marketing plan, which will inform consumers of the bank's new services.

According to the calculations conducted, 376.368, 402.528, and 421.764 personal loans were provided in 2015, 2016, and 2017, respectively. From these loans, 5% were assumed to be used for vehicle purchases, in each year. Moreover, this percentage was also assumed to be **stabilized at 5% throughout the next years analysed in this project**[7]. This calculation yielded 18.818, 20.126, and 21.088 personal credits with automobile purchases as an end, in the respective years.

[7] Assumption which will be challenged in the sensitivity/ scenario analysis of this report.

By calculating the average growth rate of personal contracts provided between 2011 and 2017, and assuming this **3-year growth rate (3.14%) will remain constant throughout the following years**[8], the number of personal loans expected to be provided was calculated until the last year in this analysis. By multiplying these values by the respective yearly percentage of contracts that are used to purchase vehicles each year (5%), the following amount of loans to this end was obtained, 22.434, 25.389, 29.636, for period 1, 5, and 10, respectively. Multiplying each of these numbers of contracts, by the respective average used car loan amount (in €) provided in each year (calculated using data from the auto credit market), yielded the C2C used car loan market value. The results were 300M€, 402M€, and 580M€, for period 1, 5, and 10, respectively.

Regarding the share of this market that Bi Credit is expected to acquire, it is assumed that **the bank will attain 5%, 7%, 7.5%, 7.8%, 8% of market share, for the first five years mentioned, and remain at 8% for the following periods**[9]. Multiplying these percentages by the respective number of personal loans to purchase vehicles, provided the expected number of loans that Bi Credit will be able to provide in the C2C market. The results were 1.122, 1.620, 1.790, 1.920, 2.031, 2.095, 2.161, 2.229, 2.299, and 2.371 loans, for each of the 10 years, respectively.

These later values (Quantity), were then multiplied by the respective amount of interest (Price) that the average amount of loan (11.168€) earns in each respective year of the loan term (88 months ~ 8 years). Below, an explanation of the calculation of this figure is provided.

[8] Assumption which will be challenged in the sensitivity/ scenario analysis of this report.
[9] Assumption which will be challenged in the sensitivity/ scenario analysis of this report.

The methodology chosen for the calculation of the average yearly interest earned per loan, assumes that the same amount of loans is provided in each month, out of the total amount of loans provided in a certain year. Thus, for each year, the total average amount of interest earned from one loan, is equal to the sum of every interest earned from each of the 12 loans (one loan per month), divided by 12 loans. (1 loan in Jan -> sum of 12 interests, 1 loan in Nov -> sum of 2 interests). The amount of interest earned on each month, from one loan, was calculated using a loan amortization table[10], where the average loan term was 88 months. This figure, along with the average amount of loan provided (11.168€), is the result of assuming that consumer preferences regarding the average desired length and amount of credit, are similar with the current ones from Bi Credit's customers in the B2B2C business model.

The previous process yielded, 564.34€, 447.74€, 389.08€, 325.75€, 255.75€ 180.13€, 97.81€, 11.15€ of total average interest earned per loan, during the first 8 years in analysis. Since in period 8, the loans provided in the first year will be paying the last interests in the loan amortization table, as well as every other loan provided in the previous years are providing every other interest amount in the same table, it is assumed that this will be the year when Bi Credit will achieve the steady-state. After this stage, the increase in revenue will be only due to the increased number of loans provided – Quantity).

Finally, to obtain Bi Credit's forecasted revenues, the later figures were multiplied by the amount of loans provided in each respective year, as they reach the respective periods of their term. The results obtained, including the accumulated inflation in each year, were 643.970€, 1.465.735€, 2.286.470€, 3.084.546€, 3.830.895€, 4.474.815€, 4.996.732€,

[10]Available in appendices.

5.374.420€, 5.689.496€, 5.990.786€ as revenues expected in year 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10, respectively.

4.5.2 Cost analysis

A. Operational costs:

Regarding the operational plan, the company will incur into costs associated with the park of vehicles which are being transacted.

ParkVia, is an online platform that shows up a range of parks available in 400 locations around the world, of which Lisbon and Porto are included. Bi Credit could use this platform to park cars that are being transacted. To prevent other competitors from following the same path, the bank could suggest this company the development of a partnership in order to acquire exclusivity regarding its services. This would translate into a greater delay in relation to the extent to which other credit institutions start operating in this C2C used car loan market, with collateral, as well.

In Lisbon, Bi Credit has two park options, either nearby the airport or in the city. The price of parking the car nearby the airport is lower than in the city, however, even in this location, there are few park options with different prices, which can vary from €24 to €35 per car, per week. Considering this price range and the expected amount of clients in this market, it is assumed that the demand for loans will require the use of both parks according with their availability. Taking this fact into account, it is estimated that Bi Credit will pay an average of 29.5€ per car, per week, which already includes a 24/7 safe park with a security team, a review of the vehicle (tire and oil maintenance) and a washing service.

Considering the fact that each loan comprises one vehicle purchase, the average number of vehicles that will need to be parked, per year, will be the yearly average number of loans granted during the 10 years, as previously seen. Knowing that the expected duration for one vehicle to remain in the park is 6 weeks, as stated in the operational plan section, the cost per vehicle will be €177 (€29.5 per week). Multiplying this figure by the yearly number of loans, yields the following results 201.977€, 391.704€, and 498.171€ from operational costs, in period 1, 5, and 10, respectively. Taking into account the nature of this type of costs, the respective accumulated inflation in each year was taken into account into the calculation of the previous figures.

B. Marketing costs:

The implementation of the marketing recommendations are dependent on incurring in the following costs regarding each suggestion[11].

➢ Website development and SEO**:** According with the research conducted, the development of a professional website can cost around 60.000€, depending on the quality and degree of development desired. The investment in SEO would require the bank to incur in monthly costs which, according with the data found, could amount to 490€/ month.

➢ PPC ads (Google AdWords): Assuming Bi Credit defines an average budget of 10€ per day, the bank would then spend around 300€ per month, which would amount to 3600€ per year. This expense, though, is dependent on Bi Credit's ads winning Google's internal bid, and thus being displayed in this search engine.

➢ Content marketing: The investment in content marketing is assumed to include professional videos which could amount to around 60€ per request. Taking into account the durability and impact of each video, it is assumed that the bank would incur in this type of cost from two in two years (year 1, 3, 5, 7, and 9).

[11] A company such as netinbound, could be chosen as an external source to assist the bank in implementing these suggestions, in case it wishes so. (Link available in references.)

C. Other costs:

Finally, it is also assumed that this project will also be subject to some of the typical costs that the bank already incurs on a monthly basis. According to Bi Credit's data, there are three main sources of costs represented as % of production that any credit institution has to take into account.

- ➢ Funding costs: Costs related to funding of capital, i.e., costs that the bank incurs when financing their operations from other banks. This is characterized as being 2% of total production (loans granted*average loan amount), per year. Funding costs from this project amount to 250.545€, 453.675€, and 529.566€ for period 1, 5, and 10, respectively.
- ➢ Structure costs: Costs related to human capital (new employees hired) and consequently, an increase in utilities, and general maintenances. According to Bi Credit this represents 2.5% of the total yearly production. Structure costs amount to 313.181€, 567.094€, and 661.957€, for period 1, 5, and 10, respectively.
- ➢ Risk costs: Costs related with the risk of default from clients. So far, this figure has been characterized as being 3% of total production, per year. For this project it was assumed a figure of 4%, to reflect the increased riskiness of tapping into a new market characterized by consumers with a lower purchasing power, and hence increased likelihood of default. Taking this percentage into account, these costs amounted to 501.089€€, 1.928.119€, 2.250.654€, for year 1, 5, and 10, respectively.

Summing up all these costs provided the following total costs from this project, 1.336.381€, 1.843.814€, 2.042.303€, 2.196.161€, 2.329.413€, 2.409.228€, 2.492.017€, 2.577.646€, 2.666.467€, 2.758.355€, from period 1 to 10, respectively.

4.5.3 Net Present Value (NPV)

According to the results obtained from the DCF model created, the following gross profits (EBITDA) are expected to be -692.411€, 1.501.482€, and 3.232.431€, in period 1, 5, and

10, respectively. Discounting depreciation and taxes, the following figures correspond to the operating cash flow (OCF) expected, -547.005€, -298.683€, 192.892€, 701.824€, 1.186.171€, 1.631.814€, 1978.725€, 2.209.451€, 2.388.193€, 2.553.620€, for the 10 periods, respectively. Taking into account the non-existence of investment cash flows, the free cash flows (FCF) obtained were equal to the OCFs, for the respective years in analysis.

Finally, assuming a discount rate of 10%, the DCF model provided a NPV of 5.581.273€. The discount rate was assumed to be higher than the current 8.5% resorted be the bank, to reflect the increased riskiness of this C2C market compared to the B2B2C one. The IRR of this project is greater than the discount rate and assumed a figure of 66%. The reason behind this highly significant value is justified by the inexistence of high initial investment costs. According to the outcome of the model the bank is expected to achieve break even in the third year of operations, with profitability amounting to 192.892€.

To understand the long-term perspectives of this project, the terminal value was calculated in period 10 which yielded a value of around 34M€, already discounted with the discount rate previously described. This figure describes the amount of net profits that Bi Credit could expect to earn in this market in the long-term.

4.5.4 Sensitivity and Scenario analyses

Taking into account the uncertainty faced regarding some forecasts in this plan, a sensitivity and scenario analysis were conducted. The factors responsible for this unpredictability are going to be described in this section. For each of these variables, the realistic scenario consists of the actual figures assumed in the calculations in this project, whereas for each pessimistic and optimistic scenarios, different values will be used accordingly. The impact on the number of loans provided and on the NPV, due to either negative or positive changes in these variables, is described below. For comparison purposes, the number of loans that Bi Credit is expected to provide, under a realistic scenario, are 1.122, 1.620, 1.790, 1.920, 2.031, 2.095, 2.161, 2.229, 2.299, and 2.371 loans for the respective 10 periods. Under the same scenario, the NPV of the project is 5.581.273€.

A. Sensitivity Analysis

To evaluate how sensitive the main financial indicators of the model are to individual changes in each variable, this analysis was conducted. Below, the three variables deemed as the ones with most uncertainty assigned are described, along with their impact in the two variables previously stated (number of loans & NPV).

1. Percentage of personal loans used to buy used vehicles (-60%, 0%, +60%);

As previously stated, it is of utmost importance to understand exactly how much personal loans are provided to individuals who wish to purchase used vehicles. According to feedback provided by Bi Credit, it was assumed, under a realistic scenario, that this factor is represented as 5% during the five years. In this section, this assumption was challenged, which resulted in the following results. Under a pessimistic scenario (variable multiplied by 1-0.6), changes in this factor yielded the following number of loans, 359, 648, 716, 768, 812, 838, 864, 891, 919, and 948 loans for each year, and a NPV of 2.178.803€. Under an optimistic scenario, changes in this variable yielded 1.436, 2.592, 2.864, 3.072, 3.250, 3.352, 3.457, 3.566, 3.678, 3.793 loans for period 1 to 10, respectively. The NPV of the project reached a figure of 8.983.743€.

2. Bi Credit's market share in the C2C used car loan market (-25%, 0%, +25%);

Regarding the market share to be expected in this market, this is a variable with a certain degree of uncertainty attached to it as well. In the first year of operations, it is assumed that the firm will attain 5% of the market. As a result of the marketing efforts, and resulting brand recognition gradually achieved during the time frame of this project, it is assumed an increase of this percentage each year until it stagnates in year 5. This process generates the following percentages, 7%, 7.5%, 7.8%, and 8%, for the respective following periods, whereas for period 6, 7, 8, 9, and 10 it is assumed Bi Credit will maintain the last level of market share achieved (8%).

Under a pessimistic scenario, each percentage was multiplied by (1-0.25). This change in this variable resulted in the following number of loans, 841, 1.215, 1.342, 1.440, 1.523, 1.571, 1.621, 1.671, 1.724, 1.778, and an NPV of 4.163.577€. Under an optimistic scenario, changes in this variable yielded the following number of loans, 1.402, 2.025, 2.237, 2.400, 2.539, 2.619, 2.701, 2.786, 2.873, 2.964 loans for the respective ten years, as well as a NPV of 6.998.969€ for the project.

3. **Growth rate of personal loans (-15%, 0%, +15%);**

As previously stated, the expected growth rate of personal loans with no defined purpose, is expected to be 3.14% for each year. Although this figure is supported by calculations based on the growth of previous years, it is still assigned some uncertainty to it. This is due to fluctuations that might occur in the future, which would result in a lower or higher growth in each year. The realistic figure for this variable was subject to changes of -15%, and +15%, in each respective scenario. Under a pessimistic scenario, changes in this variable yielded the following number of loans per year, 1.117, 1.605, 1.766, 1.885, 1.985, 2.038, 2.093, 2.148, 2.206, 2.265 loans, along with a NPV of 5.486.905€. Under an optimistic scenario, changes in this variable yielded 1.127, 1.635, 1.815, 1.955, 2.078, 2.153, 2.231, 2.311, 2.395, and 2.481 in each year. The NPV achieved was 5.677.022€.

B. Scenario Analysis

Regarding the scenario analysis conducted, under a pessimistic scenario, where all three variables assumed their pessimistic figures, the number of loans achieved were, 335, 481, 530, 566, 596, 611, 628, 645, 662, and 679 for the respective ten years. The NPV equalled 1.583.414€, which allow for the conclusion that, even under a scenario where all three variables subject to future uncertainties, assume their worst figures, the project is still financially viable.

Under an optimistic scenario, following the inverse of the previous procedure, the number of loans achieved were, 2.254, 3.269, 3.629, 3.911, 4.156, 4.306, 4.462, 4.623, 4.790, and 4.963, for the respective ten years mentioned. The NPV equalled 11.443.556€, which symbolizes the scenario where the company would acquire the greatest amount of profits.

4.5.5 Key Performance Indicators (KPIs)

To monitor its performance throughout the time frame of this project, Bi Credit can resort to three main KPIs.

➢ **Number of loans provided:** By monitoring, on a monthly/ yearly basis, the number of loans provided in this market, and comparing this figure with the one that was forecasted in this project, as well as with other competitors, Bi Credit can evaluate if, indeed, its performance is equal or above the desired one, or if there should be some adjustments in order to improve its performance.

➢ **Market Share:** Another KPI that can be used to measure Bi Credit's performance in this market, is to compare its yearly market shares with the ones assumed in this project, as well as the ones from its competitors. Following this comparison the bank can then evaluate if its performance in the C2C market is as expected or if there is some need for adjustments. From comparing this variable with the one from its competitors, Bi Credit can also evaluate the effectiveness of the marketing strategy and maintain/ increase its investment in the first two marketing recommendation stated (SEO & PPC ads).

➢ **PPC efficiency (number of clicks per month):** By monitoring the number of clicks on Bi Credit's PPC ads, the bank can evaluate if this strategy is functioning properly, and hence, redirecting a significant number of leads to its website. If the figure observed monthly is short of expected, the bank can incur in the necessary adjustments and decide the amount of investment that should be allocated to this end. With this KPI, the bank can also choose to alternate between a stronger investment in SEO or PPC, according to the results observed.

5. Recommendations

From the operational challenge previously described, the following recommendation was derived.

- Taking into account all the options available to the company stated in the business model section, and the respective alternative choices for the elaboration of the operational plan, it is recommended that the bank runs both solutions, according to client's preferences. More specifically, it is recommended that the bank **secures each seller's vehicle until it possesses its own reservation of property, or provides loans without reservation until the bank gets the opportunity to obtain a reservation of property**, so that Bi Credit can start operating in the C2C used car loan market, with reservation.

Regarding the industry analysis conducted, the results achieved lead to the following recommendations.

- The study conducted on customer's profile and preferences allowed for the conclusion that, although most customers still prefer the traditional distribution channels to ask for loans, there is an upward trend towards the use of digital channels. Considering this fact, it is recommended to Bi Credit **a constant development of its online presence** through the measures suggested in the marketing plan.
- Taking into account that the interest rate (TAEG) was voted as the most important factor when considering the choice of a credit institution, it is **not recommended to the bank the choice of operating through a method where loans are provided without reservation (permanently)**, which would require an increase in the interest rate.

From the marketing challenge, the analyses conducted lead to the following recommendations.

- Taking into account that Bi Credit's website does not show up in a typical google search, such as "financiamento automóvel", and that there is an increasing tendency for the use of digital channels by consumers, it is recommended that the company invests in the **development of its website along with a SEO strategy.**
- To complement the SEO strategy, it is also recommended to the bank an **investment in a PPC advertising strategy**. This would allow the bank to further increase its digital visibility in this market and therefore, increase its number of leads.
- Taking into account the effectiveness of promotional strategies which do not appear in an add format and the bank's need to explain the new operational method to prospective customers, a **content marketing strategy** is recommended to Bi Credit.

Taking into account the positive financial support stated in the previous section, these recommendations are officially stated to Bi Credit, in case it wishes to proceed with their implementation.

6. Conclusion

The realization of this project allowed for a better understanding of the car loan industry, as well as the bank's inclusion in it. Through the researches and brainstorming conducted, and the overall knowledge gathered on several topics regarding both the bank and the industry, it is believed that Bi Credit could add value to its current position in the market by considering the recommendations stated in this report. Still, upon their implementation, it is advised an attentive monitoring of the bank's new operations and marketing methods, to ensure that the implementation process runs smoothly.

For academic purposes, the development of this dissertation allowed for a greater understanding of concepts related to corporate finance, financial modelling, operational management, marketing, strategy and the international business environment. Taking into account the nature of this thesis, a better understanding of the consulting industry was also acquired.

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8. Appendices

I. Industry Analysis

Exhibit 1: Survey, n=182

Qual o seu género?

- Feminino
- Masculino

Qual a sua idade?

- 18-24
- 25-30
- 31-40
- 41-50
- +51

Qual a sua situação actual?

- Empregado
- Estudante
- Desempregado
- Reformado

Tem carro?

- Sim
- Não

Onde comprou o carro?

- Concessionário da marca
- Stand automóvel
- Plataforma online (OLX, Standvirtual,...)
- Particular
- Outro

Como comprou o carro?

- ◯ Crédito
- ◯ Pronto Pagamento

Como fez o seu pedido de crédito?

- ◯ Diretamente no stand ou no concessionário
- ◯ Através das instituições financeiras sugeridas nas plataformas online (Cofidis, Cetelem,...)
- ◯ Banco Pessoal
- ◯ Outro

Está a pensar obter um crédito automóvel nos próximos anos?

- ◯ Sim
- ◯ Talvez
- ◯ Não

Se estivesse interessado em obter um crédito automóvel, em que plataforma(s) preferia fazer o respetivo pedido de crédito?

- ☐ Agência
- ☐ Website
- ☐ App
- ☐ Stand Automóvel

Em que plataforma(s) preferia entregar os documentos necessários para o pedido de crédito?

- ☐ Agência
- ☐ Website
- ☐ App
- ☐ Stand Automóvel

Gostaria de fazer uma simulação antes de fazer o pedido de crédito?

- Sim
- Talvez
- Não

Gostaria de comparar diferentes simulações?

- Sim
- Talvez
- Não

No caso de ser possível obter um crédito automóvel online, classifique consoante o grau de relevância os seguintes factores que mais valoriza.

	Pouco Relevante	Relevante	Muito Relevante
Taxa de juro	○	○	○
Prazo do contrato	○	○	○
Intervalo de tempo entre o pedido e a disponibilização do dinheiro	○	○	○

Exhibit 2: Features of Portuguese institution regarding car loans

	Term (months)	TAEG	Simulation	Online application
BPI	120	8.5%	yes	no
Millennium	96	8.5%	no	no
Novo Banco	120	9.7%	yes	no
CGD	96	8.3%	no	no
Bnaco CTT	120	11.0%	yes	yes
Cofidis	96	11.5%	yes	yes
Cetelem	120	11.0%	yes	yes
Credibom	120	11.1%	yes	yes

Exhibit 3: Average contract terms per subsegment of credit (2015-2017). Source: Banco de Portugal.

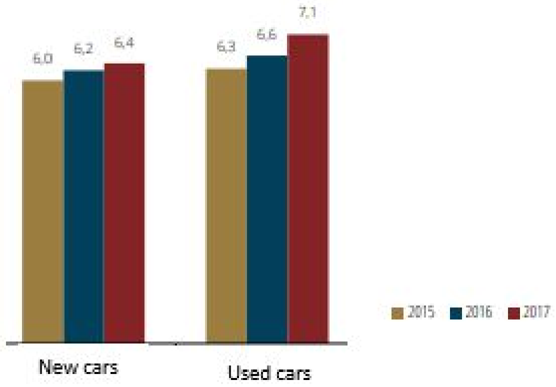

Exhibit 4: Automobile Loan - Average monthly amount of credit and average interest. Source: Banco de Portugal

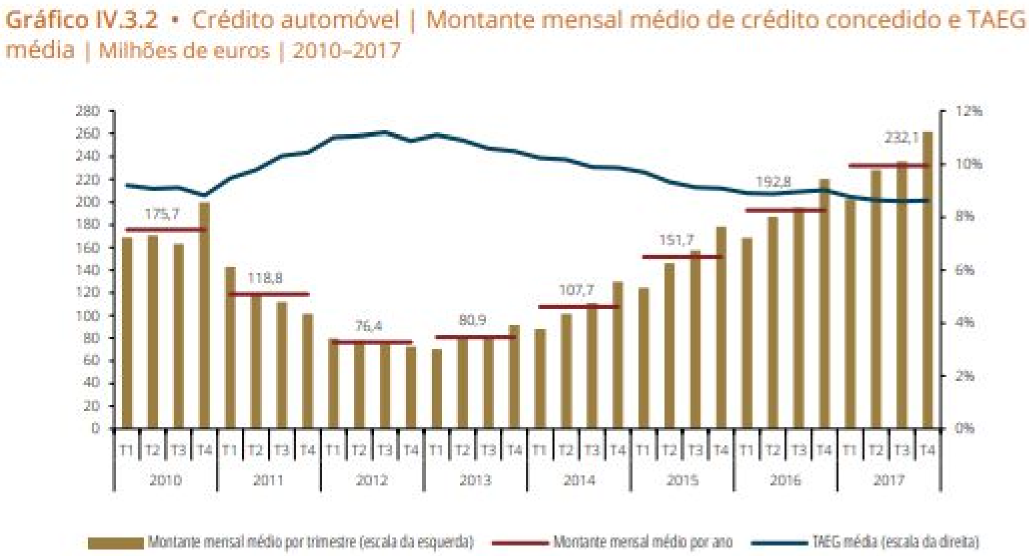

Exhibit 5: Automobile Loan - average amount and number of contracts granted, per month. Source: Banco de Portugal

Quadro IV.3.1 • Crédito automóvel | Montante e número mensal médio dos contratos celebrados | 2015-2017

		Valor			Variação percentual		
		2015	2016	2017	2015-2014	2016-2015	2017-2016
Montante (Milhares de euros)	Locação Financeira ou ALD: novos	28 218	28 175	31 313	25,3%	-0,2%	11,1%
	Locação Financeira ou ALD: usados	5552	6666	8372	26,0%	20,1%	25,6%
	Com reserva de propriedade e outros: novos	34 646	47 363	54 685	54,1%	36,7%	15,5%
	Com reserva de propriedade e outros: usados	83 290	110 586	137 747	42,9%	32,8%	24,6%
	Total	151 706	192 790	232 117	40,9%	27,1%	20,4%
Número de contratos	Locação Financeira ou ALD: novos	1222	1131	1138	23,2%	-7,4%	0,6%
	Locação Financeira ou ALD: usados	298	319	372	23,0%	7,2%	16,6%
	Com reserva de propriedade e outros: novos	2643	3434	3870	52,5%	29,9%	12,7%
	Com reserva de propriedade e outros: usados	7382	9613	11 198	37,8%	30,2%	16,5%
	Total	11 545	14 498	16 578	38,7%	25,6%	14,4%

Fonte: Banco de Portugal.

Exhibit 6: Personal credit information - Total contract amount in € and number of contracts, per year. Source: Banco de Portugal

Quadro IV.2.1 • Crédito Pessoal | Montante e número mensal médio dos contratos celebrados | 2015-2017

		Valor			Variação percentual		
		2015	2016	2017	2015-2014	2016-2015	2017-2016
Montante (Milhares de euros)	Finalidades educação, saúde, energias renováveis e locação financeira de equipamentos	2717	4259	5177	29,6%	56,7%	21,6%
	Outros créditos pessoais	184 145	212 750	230 034	18,5%	15,5%	8,1%
	Total	186 862	217 009	235 210	18,7%	16,1%	8,4%
Número de contratos	Finalidades educação, saúde, energias renováveis e locação financeira de equipamentos	326	770	979	23,9%	136,3%	27,1%
	Outros créditos pessoais	31 364	33 544	35 147	9,1%	7,0%	4,8%
	Total	31 690	34 314	36 126	9,2%	8,3%	5,3%

Fonte: Banco de Portugal.

II. Financial Plan

Exhibit 1: Personal & auto credit market data

Personal Credit Market														
Variables	Known data			Espected data										
Year (assumed)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Period				0	1	2	3	4	5	6	7	8	9	10
Nº contracts (no specific end):	376,368	402,528	421,764	435,015	448,683	462,780	477,320	492,317	507,785	523,738	540,194	557,166	574,671	592,727
Growth rate of contracts (3.)*	9.08%	6.95%	4.78%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Total value of market:	2,209,740,000	2,553,000,000	2,760,408,000	3,086,937,263	3,452,091,744	3,860,440,427	4,317,092,766	4,827,762,609	5,398,839,698	6,037,469,621	6,751,643,217	7,550,296,562	8,443,422,786	9,442,197,105
Growth rate of total value:	-	15.53%	8.12%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%	11.83%
Avg value of contract with no specific end:	5,871	6,342	6,545	7,096	7,694	8,342	9,044	9,806	10,632	11,528	12,499	13,551	14,693	15,930
% of contracts used to buy cars: (1.)*	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Nº of contracts used to purchase cars:	18,818	20,126	21,088	21,751	22,434	23,139	23,866	24,616	25,389	26,187	27,010	27,858	28,734	29,636
Avg value of contract used to buy car:	11,283	11,504	12,301	12,831	13,383	13,959	14,561	15,187	15,841	16,524	17,235	17,977	18,751	19,559
C2C used car loan market value:	212,325,188	231,530,019	259,406,705	279,077,513	300,239,958	323,007,151	347,500,780	373,851,761	402,200,936	432,699,829	465,511,452	500,811,181	538,787,688	579,643,953
Bi Credit's market share: (2.)*	-	-	-	-	5.0%	7.0%	7.5%	7.8%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Bi Credit loans in C2C market:	-	-	-	-	1,122	1,620	1,790	1,920	2,031	2,095	2,161	2,229	2,299	2,371

***Variables to be changed in sensitivity analysis**

Avg growth rate of contracts (2011-2017):	3.14%
Avg growth rate of total value:	11.83%

Used Auto Credit Market with reservation														
Nº contracts:	7,382	9,613	11,198	13,813	17,039	21,019	25,928	31,984	39,453	48,668	60,034	74,055	91,351	112,686
Growth rate of contracts:		30.22%	16.49%	23.36%	23.36%	23.36%	23.36%	23.36%	23.36%	23.36%	23.36%	23.36%	23.36%	23.36%
Total value of market (Thousands€) :	83,290	110,586	137,747	177,234	228,041	293,413	377,525	485,748	624,996	804,161	1,034,687	1,331,297	1,712,934	2,203,974
Growth rate of total value:		32.77%	24.56%	28.67%	28.67%	28.67%	28.67%	28.67%	28.67%	28.67%	28.67%	28.67%	28.67%	28.67%
Avg value of contract (Thousands€) :	11.28	11.50	12.30	12.83	13.38	13.96	14.56	15.19	15.84	16.52	17.23	17.98	18.75	19.56

Avg growth rate of contracts:	23.36%
Avg growth rate of total value:	28.67%

Previous Years Personal Loans (for avg growth calculation 2011-2017)

Year	2011	2012	2013	2014
Nº contracts (no specific end):	362412	292740	329220	345048
Growth rate of contracts:		-19.22%	12.46%	4.81%

Exhibit 2: Bi Credit's revenue calculation

Revenue Analysis											
Period		1	2	3	4	5	6	7	8	9	10
1 LOAN ONLY	Fully paid loan										
Avg loan amount	11,168	11,168	11,168	11,168	11,168	11,168	11,168	11,168	11,168	11,168	11,168
Avg loan term	88	88	88	88	88	88	88	88	88	88	88
TAEG (without reservation)	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
TAEG (with reservation)	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Periodicity	monthly	monthly	monthly	monthly	monthly	monthly	monthly	monthly	monthly	monthly	monthly
Total interest*	4,006	564.34	447.74	389.08	325.24	255.75	180.13	97.81	11.15	-	-
Total interest (alternative formula)*	4,006	564.34	447.74	389.08	325.24	255.75	180.13	97.81	11.15	-	-
Avg Nº of loans	-	1,122	1,620	1,790	1,920	2,031	2,095	2,161	2,229	2,299	2,371
Bi Credit's Revenue/ year	-	633,019	1,416,307	2,171,793	2,880,017	3,516,050	4,037,205	4,431,419	4,685,320	4,875,648	5,046,535

*Methodology chosen, assumes that the same amount of loans is provided in each month out of the total amount of loans provided in a certain year. Thus, for each year, **the total average amount of interest earned from one loan, is equal to the sum of every interest earned from each of the 12 loans (one loan per month), divided by 12 loans.** (1 loan in Jan -> sum of 12 interests, 1 loan in Nov -> sum of 2 interests).

**From period 8 onwards, the first loan granted in the first year, has already provided all the respective interest, thus, the average yearly interest earned per one loan is achieved.

Exhibit 3: Loan amortization table, with a loan of 11.168€ during 88 months, with monthly payments at 11% (1st 3 months) and 8.5% (remaining period) TAEG, inputted.

Loan amortization schedule

Month	Initial Outstanding debt	Payment	Reimbursement	Interest	Final Outstanding debt
1	11,168.00	170.98	68.61	102.37	11,099.39
2	11,099.39	170.98	69.24	101.74	11,030.16
3	11,030.16	170.98	69.87	101.11	10,960.29
4	10,960.29	170.98	93.34	77.64	10,866.94
5	10,866.94	170.98	94.01	76.97	10,772.94
6	10,772.94	170.98	94.67	76.31	10,678.27
7	10,678.27	170.98	95.34	75.64	10,582.92
8	10,582.92	170.98	96.02	74.96	10,486.91
9	10,486.91	170.98	96.70	74.28	10,390.21
10	10,390.21	170.98	97.38	73.60	10,292.83
11	10,292.83	170.98	98.07	72.91	10,194.75
12	10,194.75	170.98	98.77	72.21	10,095.99
13	10,095.99	170.98	99.47	71.51	9,996.52
14	9,996.52	170.98	100.17	70.81	9,896.35
15	9,896.35	170.98	100.88	70.10	9,795.47
16	9,795.47	170.98	101.60	69.38	9,693.87
17	9,693.87	170.98	102.32	68.66	9,591.56
18	9,591.56	170.98	103.04	67.94	9,488.52
19	9,488.52	170.98	103.77	67.21	9,384.75
20	9,384.75	170.98	104.50	66.48	9,280.24
21	9,280.24	170.98	105.24	65.74	9,175.00
22	9,175.00	170.98	105.99	64.99	9,069.01
23	9,069.01	170.98	106.74	64.24	8,962.27
24	8,962.27	170.98	107.50	63.48	8,854.77
25	8,854.77	170.98	108.26	62.72	8,746.51
26	8,746.51	170.98	109.03	61.95	8,637.49
27	8,637.49	170.98	109.80	61.18	8,527.69
28	8,527.69	170.98	110.58	60.40	8,417.11
29	8,417.11	170.98	111.36	59.62	8,305.75
30	8,305.75	170.98	112.15	58.83	8,193.61
31	8,193.61	170.98	112.94	58.04	8,080.66
32	8,080.66	170.98	113.74	57.24	7,966.92
33	7,966.92	170.98	114.55	56.43	7,852.37
34	7,852.37	170.98	115.36	55.62	7,737.02
35	7,737.02	170.98	116.18	54.80	7,620.84
36	7,620.84	170.98	117.00	53.98	7,503.84
37	7,503.84	170.98	117.83	53.15	7,386.01
38	7,386.01	170.98	118.66	52.32	7,267.35
39	7,267.35	170.98	119.50	51.48	7,147.85
40	7,147.85	170.98	120.35	50.63	7,027.50
41	7,027.50	170.98	121.20	49.78	6,906.30
42	6,906.30	170.98	122.06	48.92	6,784.24
43	6,784.24	170.98	122.92	48.06	6,661.31
44	6,661.31	170.98	123.80	47.18	6,537.52
45	6,537.52	170.98	124.67	46.31	6,412.84
46	6,412.84	170.98	125.56	45.42	6,287.29
47	6,287.29	170.98	126.44	44.53	6,160.84
48	6,160.84	170.98	127.34	43.64	6,033.50

Exhibit 4: Loan amortization table (continuation)

49	6,033.50	170.98	128.24	42.74	5,905.26
50	5,905.26	170.98	129.15	41.83	5,776.11
51	5,776.11	170.98	130.07	40.91	5,646.04
52	5,646.04	170.98	130.99	39.99	5,515.05
53	5,515.05	170.98	131.91	39.06	5,383.14
54	5,383.14	170.98	132.85	38.13	5,250.29
55	5,250.29	170.98	133.79	37.19	5,116.50
56	5,116.50	170.98	134.74	36.24	4,981.76
57	4,981.76	170.98	135.69	35.29	4,846.07
58	4,846.07	170.98	136.65	34.33	4,709.42
59	4,709.42	170.98	137.62	33.36	4,571.79
60	4,571.79	170.98	138.60	32.38	4,433.20
61	4,433.20	170.98	139.58	31.40	4,293.62
62	4,293.62	170.98	140.57	30.41	4,153.05
63	4,153.05	170.98	141.56	29.42	4,011.49
64	4,011.49	170.98	142.57	28.41	3,868.93
65	3,868.93	170.98	143.58	27.40	3,725.35
66	3,725.35	170.98	144.59	26.39	3,580.76
67	3,580.76	170.98	145.62	25.36	3,435.14
68	3,435.14	170.98	146.65	24.33	3,288.49
69	3,288.49	170.98	147.69	23.29	3,140.81
70	3,140.81	170.98	148.73	22.25	2,992.08
71	2,992.08	170.98	149.79	21.19	2,842.29
72	2,842.29	170.98	150.85	20.13	2,691.44
73	2,691.44	170.98	151.92	19.06	2,539.53
74	2,539.53	170.98	152.99	17.99	2,386.53
75	2,386.53	170.98	154.08	16.90	2,232.46
76	2,232.46	170.98	155.17	15.81	2,077.29
77	2,077.29	170.98	156.27	14.71	1,921.03
78	1,921.03	170.98	157.37	13.61	1,763.65
79	1,763.65	170.98	158.49	12.49	1,605.17
80	1,605.17	170.98	159.61	11.37	1,445.56
81	1,445.56	170.98	160.74	10.24	1,284.82
82	1,284.82	170.98	161.88	9.10	1,122.94
83	1,122.94	170.98	163.03	7.95	959.91
84	959.91	170.98	164.18	6.80	795.73
85	795.73	170.98	165.34	5.64	630.39
86	630.39	170.98	166.51	4.47	463.87
87	463.87	170.98	167.69	3.29	296.18
88	296.18	170.98	168.88	2.10	127.30

Exhibit 5: Bi Credit's cost analysis

Cost Analysis										
Period	1	2	3	4	5	6	7	8	9	10
New operational process*										
Number of vehicles per year	1,122	1,620	1,790	1,920	2,031	2,095	2,161	2,229	2,299	2,371
Average weekly cost per vehicle	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
Nº of weeks in park:	6	6	6	6	6	6	6	6	6	6
Total costs per year:	198,542	286,692	316,821	339,846	359,511	370,807	382,457	394,473	406,867	419,650
Website development & SEO										
IT development costs:	60,000	0	0	0	0	0	0	0	0	0
Cost per month:	490	490	490	490	490	490	490	490	490	490
Nº of months:	12	12	12	12	12	12	12	12	12	12
Total costs per year:	65,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
PPC ads/ Google adwords										
Budget per day:	10	10	10	10	10	10	10	10	10	10
Nº of days:	365	366	365	365	365	365	365	365	365	365
Total costs per year:	3,650	3,660	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650
Content Marketing										
Total costs per year:	60	0	60	0	60	0	60	0	60	0
Other Costs (% of production)										
Funding Costs (2%):	250,545	361,783	399,803	428,859	453,675	467,929	482,631	497,794	513,434	529,566
Structure Costs (2.5%):	313,181	452,229	499,754	536,074	567,094	584,911	603,288	622,243	641,793	661,957
Risk costs (4%)**:	501,089	723,566	799,606	857,718	907,350	935,858	965,261	995,588	1,026,868	1,059,131
Total Other Costs:	1,064,814	1,537,577	1,699,163	1,822,651	1,928,119	1,988,698	2,051,180	2,115,625	2,182,096	2,250,654

*If client chooses temporary personal loan, bank will provide/ discount the amount of money it would spend in car park.

**1% higher (than current 3%) to reflect riskiness of C2C market.

Exhibit 6: DCF model

DCF Model								Steady-state		
Period	1	2	3	4	5	6	7	8	9	10
Total revenue:	643,970	1,465,735	2,286,470	3,084,546	3,830,895	4,474,815	4,996,732	5,374,420	5,689,496	5,990,786
New operational process	201,977	296,697	333,550	363,981	391,704	411,000	431,247	452,491	474,782	498,171
Website development & SEO	65,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880	5,880
PPC ads	3,650	3,660	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650
Content Marketing	60	0	60	0	60	0	60	0	60	0
Other Costs:	1,064,814	1,537,577	1,699,163	1,822,651	1,928,119	1,988,698	2,051,180	2,115,625	2,182,096	2,250,654
Total costs:	1,336,381	1,843,814	2,042,303	2,196,161	2,329,413	2,409,228	2,492,017	2,577,646	2,666,467	2,758,355
EBITDA:	- 692,411	- 378,079	244,167	888,385	1,501,482	2,065,587	2,504,716	2,796,774	3,023,028	3,232,431
Depreciation:	0	0	0	0	0	0	0	0	0	0
EBIT:	- 692,411	- 378,079	244,167	888,385	1,501,482	2,065,587	2,504,716	2,796,774	3,023,028	3,232,431
Taxes:	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
Net Income:	- 547,005	- 298,683	192,892	701,824	1,186,171	1,631,814	1,978,725	2,209,451	2,388,193	2,553,620
Operating Cash Flow:	- 547,005	- 298,683	192,892	701,824	1,186,171	1,631,814	1,978,725	2,209,451	2,388,193	2,553,620
Investment Cash Flow:	0	0	0	0	0	0	0	0	0	0
Free Cash Flow:	- 547,005	- 298,683	192,892	701,824	1,186,171	1,631,814	1,978,725	2,209,451	2,388,193	2,553,620
Free Cash Flow Nominal Growth:		-45%	-165%	264%	69%	38%	21%	12%	8%	7%
Free Cash Flow (w/ Terminal Value):	- 547,005	- 298,683	192,892	701,824	1,186,171	1,631,814	1,978,725	2,209,451	2,388,193	88,852,025
Discouted FCF (w/ Terminal Value):	- 497,277	- 246,845	144,922	479,355	736,519	921,116	1,015,399	1,030,725	1,012,827	34,256,302

Discount rate:	10%	Higher than what the banks currently uses due to C2C consumers having lower purchasing power, increasing likelihood of default.
NPV of project (10 years):	€ 5,581,273	> 0
IRR of project (10 years):	66%	High due to no significant initial investment costs.

	1	2	3	4	5	6	7	8	9	10
Inflation:	0.0173	0.0173	0.0173	0.0173	0.0173	0.0173	0.0173	0.0173	0.0173	0.0173
1+inflation:	1.0173	1.0173	1.0173	1.0173	1.0173	1.0173	1.0173	1.0173	1.0173	1.0173
Acumulated inflation:	1.0173	1.0349	1.0528	1.0710	1.0895	1.1084	1.1276	1.1471	1.1669	1.1871

Exhibit 7: Sensitivity analysis (Pessimistic values)

Sensitivity analysis										
	Realistic Values									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bi Credit's market share (C2C): (2.	5.0%	7.0%	7.5%	7.8%	8.0%	8%	8%	8%	8%	8%
Growth rate of contracts: (3.)	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Bi Credit loans in C2C marke	1,122	1,620	1,790	1,920	2,031	2,095	2,161	2,229	2,299	2,371
Project NPV:	5,581,273									

	Pessimistic - Variable 1. (-60%)									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bi Credit's market share (C2C): (2.	5%	7%	8%	8%	8%	8%	8%	8%	8%	8%
Growth rate of contracts: (3.)	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Impact on Bi Credit loans:	359	648	716	768	812	838	864	891	919	948
Impact on project NPV:	2,178,803									

	Pessimistic - Variable 2. (-25%)									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bi Credit's market share (C2C): (2.	3.8%	5.3%	5.6%	5.9%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Growth rate of contracts: (3.)	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Impact on Bi Credit loans:	841	1,215	1,342	1,440	1,523	1,571	1,621	1,671	1,724	1,778
Impact on project NPV:	4,163,577									

	Pessimistic - Variable 3. (-15%)									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bi Credit's market share (C2C): (2.	5%	7%	7.5%	8%	8%	8%	8%	8%	8%	8%
Growth rate of contracts: (3.)	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%
Impact on Bi Credit loans:	1,117	1,605	1,766	1,885	1,985	2,038	2,093	2,148	2,206	2,265
Impact on project NPV:	5,486,905									

Exhibit 8: Sensitivity analysis (Optimistic values)

Sensitivity analysis										
	Realistic Values									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bi Credit's market share (C2C): (2.	5.0%	7.0%	7.5%	7.8%	8.0%	8%	8%	8%	8%	8%
Growth rate of contracts: (3.)	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Bi Credit loans in C2C marke	1,122	1,620	1,790	1,920	2,031	2,095	2,161	2,229	2,299	2,371
Project NPV:	5,581,273									

	Optimistic - Variable 1. (+60%)									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Bi Credit's market share (C2C): (2.	5%	7%	7.5%	8%	8%	8%	8%	8%	8%	8%
Growth rate of contracts: (3.)	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Impact on Bi Credit loans:	1,436	2,592	2,864	3,072	3,250	3,352	3,457	3,566	3,678	3,793
Impact on project NPV:	8,983,743									

	Optimistic - Variable 2. (+25%)									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bi Credit's market share (C2C): (2.	6.3%	8.8%	9.4%	9.8%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Growth rate of contracts: (3.)	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Impact on Bi Credit loans:	1,402	2,025	2,237	2,400	2,539	2,619	2,701	2,786	2,873	2,964
Impact on project NPV:	6,998,969									

	Optimistic - Variable 3. (+15%)									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bi Credit's market share (C2C): (2.	5%	7%	8%	8%	8%	8%	8%	8%	8%	8%
Growth rate of contracts: (3.)	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%
Impact on Bi Credit loans:	1,127	1,635	1,815	1,955	2,078	2,153	2,231	2,311	2,395	2,481
Impact on project NPV:	5,677,022									

Exhibit 9: Scenario analysis

Scenario analysis										
	Realistic Values									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Bi Credit's market share (C2C): (2.	5.0%	7.0%	7.5%	7.8%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Growth rate of contracts: (3.)	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Bi Credit loans in C2C marke	1,122	1,620	1,790	1,920	2,031	2,095	2,161	2,229	2,299	2,371
Project NPV:					5,581,273					

	Pessimistic Scenario									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bi Credit's market share (C2C): (2.	3.8%	5.3%	5.6%	5.9%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Growth rate of contracts: (3.)	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%
Impact on Bi Credit loans:	335	481	530	566	596	611	628	645	662	679
Impact on project NPV:					1,583,414					

	Optimistic Scenario									
Period	1	2	3	4	5	6	7	8	9	10
Changing variables										
% of contracts to buy cars: (1.)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Bi Credit's market share (C2C): (2.	6.3%	8.8%	9.4%	9.8%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Growth rate of contracts: (3.)	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%	3.61%
Impact on Bi Credit loans:	2,254	3,269	3,629	3,911	4,156	4,306	4,462	4,623	4,790	4,963
Impact on project NPV:					11,443,556					