

INSTITUTO UNIVERSITÁRIO DE LISBOA

Business Plan for Canine Rescue

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Master in Finance

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Department of Finance

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Abstract

The way we connect with dogs has changed over time, and they are increasingly considered pets that need a lot of care, both emotionally and physically.

Recently, as the number of people having pets increased and with the evolution of society, the processes have had to adapt, and therefore, dog care has become more expensive. Adding to this, the lack of time, responsibility, or patience leads to a high number of dropouts and negligence with health care.

This project intends to assess the economic and financial viability of creating a company with several services for dogs as well as a dog shelter. To this purpose and considering the importance of these issues through the analysis carried out in the literature review, this business plan was developed. After this first step, both the number of abandonments over the last few years and the evolution of the pet services market were also analyzed. The analyses carried out led to the creation of the *Clube dos Patudos*, where grooming, day care, hotel, and veterinary services can be provided. This business aims to eliminate some of the existing problems and needs in Portugal, helping not only animals and their owners but also society.

Keywords: Business Plan, Dogs, Pets, Pet Services, Dog Shelter

JEL Classification System: M10; M13

Resumo

A forma como lidamos com os cães modificou-se com o passar do tempo e cada vez mais estes são considerados como animais de estimação que precisam de muitos cuidados tanto a nível emocional como de saúde.

Recentemente, com o aumento do número de pessoas a terem animais de estimação e com a evolução da sociedade, os processos precisaram de ser adaptados e, portanto, os cuidados animais tornaram-se mais dispendiosos. Para além deste fator, a falta de tempo, de responsabilidade ou paciência, fizeram com que o número de abandonos e casos de negligência relativamente aos cuidados de saúde continuassem a ser bastante elevados.

O presente projeto pretende avaliar a viabilidade económica e financeira da criação de uma empresa com diversos serviços para cães bem como um abrigo para cães abandonados. Para tal e tendo em consideração a importância destas temáticas através da análise realizada na revisão de literatura, recorreu-se à elaboração deste plano de negócio. Após esta primeira fase, foram analisados tanto o número de abandonos ao longo dos últimos anos bem como a evolução do mercado de serviços para animais de estimação. As análises realizadas resultaram na criação do Clube dos Patudos, onde poderão ser realizados serviços de tosquia, ATL, hotel e veterinário. Este negócio pretende suprimir alguns problemas e necessidades existentes em Portugal, com o intuito de ajudar não só os animais e os seus donos bem como a sociedade em geral.

Palavras-Chave: Plano de negócio, Cães, Animais de estimação, Serviços para animais de estimação, Abrigo para cães

Classificação JEL: M10; M13

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List of Abbreviations

 $\frac{Debt}{Equity}$ – Debt-to-Equity Ratio

 K_d – Cost of debt after taxes

 r_d – Cost of Debt

 r_f – Risk Free Rate

- r_U Discount Rate
- β_L Leverage Beta
- β_U Unlevered Beta
- $[E(r_m) r_f]$ Market Risk Premium
- %-Percentage
- ${\bf \in}-Euros$
- APV-Adjusted Present Value
- ASPCA American Society for the Prevention of Cruelty to Animals
- BdP Banco de Portugal
- CAE Classificação Portuguesa de Atividades Económicas
- CAPEX Capital Expenditure
- CAPM Capital Asset Pricing Model
- CAV Contribution to Audiovisual
- CF Cash Flow
- CFI Corporate Finance Institute
- CRO Centro de Recolha Oficial
- CV Curriculum Vitae
- DGAV Direção-Geral de Alimentação e Veterinária
- EBIT Earnings Before Interest and Taxes
- EBITDA Earnings Before Interest, Taxes, Depreciation, and Amortization

- EBT Earnings Before Taxes
- EU European Union
- HICP Harmonized Index of Consumer Prices
- INE Instituto Nacional de Estatística
- IRC Imposto sobre o Rendimento de Pessoas Coletivas
- IRR Internal Rate of Return
- ISAC Imposto de Selo sobre Comissão de Abertura

M-Millions

- MIRR -- Internal Rate of Return Modified
- NI Net Income
- NOPLAT Net Operating Profit Less Adjusted Taxes
- NPV Net Present Value
- NPVF Net Present Value of the Financing Decision
- **O** Opportunities
- OMV Ordem dos Médicos Veterinários
- PI Profitability Index
- PIB Produto Interno Bruto
- ROA Return on Assets
- ROE Return on Equity
- ROIC Return on Invested Capital
- ROS Return on Sales

S – Strengths

SIAC – Sistema de Informação de Animais de Companhia

- SO Strengths and Opportunities
- SS Segurança Social
- ST Strengths and Threats
- T Corporate Tax
- T Threats
- U.S. United Sates
- VAT Value Added Tax
- W Weaknesses
- WO Weaknesses and Opportunities
- WT Weaknesses and Threats

Executive Summary

With this project, I intend to show that it's possible to solve a social and environmental problem in a not only profitable but successful way. For this, I will analyze the feasibility of the project not only at the legal level, but I will also exhaustively approach its financial feasibility in order to make the analysis of this project as real as possible.

In the last 20 years, people have started to take care and look at pets in a different way, with much more respect. Time passed, and pets began to be seen as part of the family, not only because of the company they provide but also for the relationship developed between pets and their owners. With the evolution of science as well as society itself, the number of services available as well as demand and expenses have also increased.

Nowadays, there are many reasons for getting a pet as well as for abandoning them. Many studies have been carried out on the benefits of having a pet, in addition to the happiness of having a new member of the family, it also has many benefits for physical and mental health. Recently, during the Covid-19 pandemic, many families made the decision to get a pet, since people started to spend a lot of time at home. However, when the lockdowns were over and reality kicked in, the dropouts increased again. Other reasons can be pointed out for animal abandonment in addition to lack of time, such as loss of purchasing power or loss of enthusiasm.

To create this project, several indicators were considered, including the increase in the number of dogs, with more than 2.6 million dogs being counted in 2020 (Porto, 2020); the growth of the animal services market, which remains unable to respond to the growing demand (Grande Consumo, 2023); and the amount spent annually in Portugal per pet, which is 1,021€ (TVI Player, 2023).

This project will have a diversification strategy, as it would meet all the needs of pets and their owners. For this business to open its doors in January 2024, the necessary funding for construction and equipment, a budget of 17,445€, must be acquired by the end of 2023. Through financial analysis, it is possible to assess the viability of the project with a NPV of 20,161€.

1. Identification of the Promoter and the Proposal

This business plan was oversaw by Lara Ramalho, who has a bachelor's degree in management and is currently finishing her master's degree in finance at ISCTE.

This project is the beginning of the creation of a company with several services for dogs, from day care and hotel to grooming, and veterinary care. In addition to these services, it will have a dog shelter in order to respond to the high number of abandonments. This idea arises as a combination of two predominant factors: while on the one hand, there is a personal passion for dogs and, on the other, there is growing concern and awareness about their health and wellbeing. Allied to these issues is the author's entrepreneurial side as well as her determination to create a successful project. Adding to these reasons, the choice of a business plan also arose because it is a type of thesis that turns out to be always relevant where many topics for the development of a business are deepened.

To create new services, it is important to understand the consumer and their needs. Nowadays, animal welfare has increasingly become a debated topic, however, it is also clear that the number of abandonments has not decreased over the last few years. For this business plan, it is essential to consider consumer lifestyle once there is important practicality as well as services personalization. And it is through all these factors that the creation of the *Clube dos Patudos* emerged with the aim of being a company where people can satisfy all the needs of their animals in a careful, personalized, and professional way.

This company, in addition to the paid services available, will also have a shelter for dogs with the aim of reducing abandonment and promoting adoption. Taking into account the available area, initially four animals will be sheltered, but it is hoped that over time it will be possible to welcome more animals and increase the adoption rate.

2. Literature Review

To better understand the topics to be developed throughout this thesis, it was necessary to understand what was being studied by other authors.

2.1 Dog Care

Dogs have been part of society for a long time and increasingly play the role of companion animals better than any other domestic animal.

Many studies have been done on the evolution of dogs as pets and the relationship between them and their owners. The latest experiences show that dogs understand human emotions, gestures, and actions (Reisen, 2022). More recent discoveries point out that dogs have certain genes that play a role in their social cognitive skills, which makes them more social, not just with humans but with other species (Kaminski, 2021). The nature of this relationship has also been studied, which can be compared to the parent-child relationship, as mentioned by many scientists (Kaminski, 2021).

"In modern-day society, the human-animal bond has become stronger, with pets playing an important role as a source of companionship, emotional support, and recreation." (Alho et Al., 2017) According to the specialists at *Hospital Lusíadas*, in addition to their companionship and the increase in our happiness, there are five more important benefits for human health. Firstly, living with pets, especially dogs, strengthens the immune system, reduces the risk of children developing allergies, and decreases the likelihood of adults developing heart disease. In addition to these factors, the presence of a pet can prevent the development of psychological illnesses such as depression and anxiety, in addition to helping with the practice of physical activities.

Taking into account the whole history of society, having a pet is a huge decision, as it implies high responsibility. As already mentioned, over the years, animal care has increased, having a major impact on our lives.

Dog care has become increasingly expanded, with tips for treating them at a relational, aesthetic, hygienic, and health level. Currently, there are almost all types of services available for dogs to be able to provide all the necessary care. According to the ASPCA, there are 10 types of general care for dogs, and all of them must be taken into account when making the decision.

2.2 Animal Abandonment

Pet abandonment has long-term consequences not only for the animals involved but also for society. Taking into account the relationship developed between humans and companion animals, the latter, when abandoned, feel lost, confused, and in constant danger, subject to disease, hunger, and thirst, which makes the fate of these animals uncertain.

Pets are abandoned on the streets, in shelters, or on other underprivileged properties, particularly during the holidays, as people feel they have no alternatives and don't know where to leave them. Also, when they were offered as gifts or when the pandemic started, many families decided to have pets for company. However, when the novelty wore off or when people started to return to work and realized that they didn't have enough time or simply weren't any more interested in their pet, they abandoned them. (Four Paws Organization, 2021). According to this, during the pandemic, it was noticed that the interest in dog adoption increased while the abandonment rate did not change (Raz, 2020).

In the year of 2023, adding to these factors there is also the economic instability experienced, due not only to the impacts of the pandemic but also to the current wars. These issues triggered economic inflation and, therefore, a decrease in consumers' purchasing power, which directly affects animal care. Families, seeing their economic power diminish, often think that they have no other way out other than abandonment (Ribeiro, 2022).

2.3 Dog Shelters

Dog shelters are facilities that take in abandoned or stray dogs in order to provide them with all the necessary care and protect them until they are returned to their owners or find a new owner.

Currently, there are several types of shelters that vary according to their functions, goals, and services they provide to society. The common goal of all shelters is to care for all dogs in need hygienically, with all the necessary environmental and professional resources. There are two main groups of dog shelters: public and private. While the goal is to control the number of abandoned animals and therefore have no admission criteria, the latter tend to admit more animals with a high probability of adoption (American Hearthworm Society and Association of Shelter Veterinarians, 2017).

According to law no. 27/2016, of August 23, until 2016, animal slaughter was allowed as a population control measure, but when the law changed, it took a while for shelters to adapt to this new reality and adapt new control measures for abandoned animals.

3. Methodology

The analysis of this project and resolution of specific issues related to the development of this business plan will include and process quantitative and qualitative data, which will culminate in the financial evaluation of the project. In order to draw the final business plan and its conclusions, I started to understand how the external and internal environments can influence this type of company. After that, it was possible to create the company pillars, the development strategy, and the main goals. Next to the SWOT analysis, it was defined the different implementation policies, and in the end, it was possible to do the financial and economic valuation and its conclusions.

To elaborate this business plan, data from Portuguese legislation, the Bank of Portugal regarding Portuguese market evolution, the information collected through the surveys, as well as the different existing newspapers and news with relevant information for the case, were considered.

The survey carried out was created to understand consumer behavior and their habits, to respond to topics covered throughout this project and can be consulted in detail in Appendix A. 165 responses were collected, of which 109 said they had pets. In the first analysis, some data from the respondent was collected, such as place of residence, age, or household income. Then a division was made between those who have pets, and therefore what habits and needs these consumers already have within the market, and consumers who do not have animals but would like to, and therefore the opinion they have of the market. Some of the most important data collected that most influenced this project were their place of residence, what type of animal they have and what size, how often they use pet services, what they value most about the services, and how they like to be contacted. These results were used and referred to throughout this project.

4. Market Analysis

4.1 PESTLE Analysis

PESTLE analysis is a tool used to measure how the external environment and its strengths can affect the success of a new business. To develop this plan, I will apply each parameter of the

analysis to this business, which includes different types of services for dogs and is focused on consumer needs. Since this company plans to have a non-profit area, it will also be necessary to analyze how this dog shelter can be affected by these factors.

4.1.1 Political

Through a macro analysis, to start a business like this, compliance with government policies, health, and safety regulations, such as vaccination, deworming, hygiene, and animal welfare, is essential.

Currently, animal welfare has become a strongly debated topic worldwide, and according to the European Parliament, public concern about animal welfare has increased in many countries during the last twenty years, with the following advances being recorded:

1. Letters from the public, media coverage.

2. References in parliamentary discussions and government statements.

3. Requests for scientific evidence concerning animal welfare.

4. Activity of scientific and other advisory committees.

5. Funding of scientific research on animal welfare.

6. Increased teaching and conferences.

7. More legislation.

(Animal Welfare in the European Union, 2017)

The existence of political parties increasingly interested in these subjects has boosted the discussion of the most diverse topics as well as initiated many changes. Since 1995, animal protection has been preserved by law, but only in recent years have major political changes been noted regarding the safety of pets. In 2016, to fight a troubling issue at European level, such as the trafficking of dogs and cats, measures such as pet registration were imposed. In the following two years, there were also some important modifications, such as the change in legal status, where dogs were no longer considered 'things' and the creation of measures regarding the slaughter of animals.

4.1.2 Economical

These days, the world economy is going through a critical period, not only due to the effects of the Covid-19 pandemic as well as the current wars. These events are being felt all over the world, but especially in Europe. In Portugal, the effects are already visible, from the increase in prices, both for companies and consumers, on a wide range of products, fuels, cereals, and transport as well as the constant increase in inflation and interest rates.

The inflation rate measured through the HIPC (European Central Bank, 2023) in the last 5 years had a variation of more than 7%, having reached a variation of 8.1% in 2022, however, BdP forecasts state that by 2025 this variation will drop to 2.1%.

Regarding PIB (INE, 2023), there was a large drop in 2020 due to the pandemic, however, two years later, the maximum of recent years was reached with a variation of 6.7%, stabilizing at around 2% in 2024. The euro zone has presented lower variations, with a maximum of 3.6% in 2022 and stabilization at around 1.6% in 2024. This contrasting difference between Portugal and the euro zone is due to the structural constraints of economic growth, mainly the high levels of debt, unfavorable demographic developments, and market inefficiency.

4.1.3 Social

According to Eurostat, in 2022, the average age of Portuguese people was 46.8 years, 2.2 years above the European average. That same year, the largest increase in the average age between 2012 and 2022 was also recorded, at 4.7 years. Portugal is, therefore, the EU country where the average age has increased the most and where aging is starting to become a structural problem. In addition to the increase in the average age, the EU's old-age dependency ratio, defined as the ratio of the number of elderly people (aged 65 and over) compared to the number of people of working age (15-64 years), has also increased in 2022, with Portugal's ratio being one of the highest, at 37.2%.

The Portuguese population decreased between 2011 and 2018, largely due to the Portuguese economy's condition, which increased until 2021, when it registered 10.4M people, with the division by age groups being as follows: 13.1% of those aged 0-14; 63.5% of 15-64 years old; and 23.4% over 64 years old, with an increase in the elderly and adult population recorded due to the decrease in the young population (PORDATA, 2022).

Regarding citizen quality of life indicators, namely the "average monthly base remuneration", it was found that in Portugal the values registered an increase of almost 7% between 2020 and 2022, having gone from $1,418 \in to 1,517 \in (\text{Reinis Fischer}, 2022)$, this value once again being below the European average which was $2,570.26 \in in 2022$.

4.1.4 Technological

For many years, consumers' resistance to technology has been talked about, although there is still a long way to go when it comes to the digitalization of companies (European Commission, 2022). Portugal is already in 16th place in the Economy and Digitality Index of Society among EU member states in 2021.

Digitization has drastically changed the way companies relate to consumers, allowing them to establish an immediate connection under any circumstances. This digitalization process is noticeable from the moment the consumer searches for a product or service until the moment they share their opinion. These recommendations have completely transformed the way other people make their purchasing decisions (UNWTO, 2014), so for any type of product or service it is important that the consumer is always satisfied.

Currently, an online, and social media presence is essential for the development of a business. Additionally, management and security software are also essential for keeping all company issues organized.

4.1.5 Legal

By reading *Diário da Républica* N°241, October 17, 2001, to analyze this business, it is necessary to consider the following types of accommodation:

"«Non-profit accommodation» accommodation, permanent or temporary, of pet animals that does not aim to obtain income.

"«Accommodation for commercial purposes» accommodation for reproduction, creation, maintenance, and sale of pet animals for commercial or profit-making purposes, including accommodation for maintenance, hotels, and training centers. "«Accommodation for medical and veterinary purposes» accommodation of pet animals in veterinary clinics and hospitals for a limited period necessary for their treatment and/or recovery.

"«Accommodation for hygienic purposes» means temporary accommodation of pet animals for a period not exceeding twelve hours without an overnight stay in establishments, whether profit-making or non-profit, aimed at external body cleaning."

Therefore, during the elaboration of this thesis, it will be necessary to take into account the different nomenclatures as well as their rules, since for the creation of a dog shelter as well as for the hotel and day care, it is important to consider taxes, licenses, and authorization regulations. Since 2012, it is only necessary to issue a prior communication to the DGAV to start this kind of business.

According to data from Statista, there are around 99 million cats and 65 million dogs, with the majority of pet and working animals being well treated in the EU. Although the welfare of animals during transport is covered by the same legislation as farm animals, except for the prohibition on the sale of dog and cat fur, other aspects of animal welfare are not yet subject to legislation in the EU. One of the biggest problems in several Member States is dog abandonment, as there is no legislation yet.

In Portugal, there are laws related to animal welfare that establish hygiene, health, and safety requirements for pets, as well as penalties for those who violate them.

As a company that offers a diversity of services, it is important to be aware of civil liability laws in relation to customers and their pets, as well as the rights and obligations for employees and employers, as presented in Portuguese legislation. Some measures and laws imposed that are most relevant to this business are presented below:

- Decree-Law No. 276/2001, of October 17, establishes the different types of accommodation as well as the rules that must be followed for any of the types.
- Decree-Law No. 260/2012 rectifies some issues covered in the previous point, and currently only a communication to DGAV is necessary for the creation of these accommodations.
- Decree-Law No. 184/2009 and Ordinance No. 1246/2009 establish the requirements regarding the facilities, organization, and operation of Medical Veterinary Service

Centers, as well as the fees to be charged for the acts in Article 34.° of Decree-Law no. 184/2009, respectively.

- Law No. 27/2016, of August 23, was approved with a set of measures for the creation of official collection centers for companion animals as well as the prohibition of the slaughter of animals to control the population in collection centers.
- Law No. 8/2017, of March 3, 2017, states that animals cannot longer being treated as things.
- Decree-Law No. 82/2019, of June 27, implements the pet animal information system, which aims to register animals.
- Decree-Law No. 27-A/2020, of June 19, summarizes several measures to be adopted to improve animal welfare.
- o In the 2022 State Budget, an amount of 1.3M€ was approved for improving the provision of veterinary services. In 2018, the construction of several collection centers was also approved by the State Budget for 50 and 100 thousand euros.

4.1.6 Environmental

Population growth, as well as the decrease in concern for environmental and ecological policies, has considerable impacts on climate change, the reduction of the earth's natural resources, and pollution. Thus, the most advanced countries have been developing policies, with Portugal being a pioneer in sustainable development since the approval of the Action Plan for the Circular Economy through Resolution of the Council of Ministers no.190-A/2017 of December 11. This plan actively promotes the efficient use of resources, up to the Roadmap for Carbon Neutrality 2050, approved by Resolution of the Council of Ministers no. 107/2019 of July 1, which establishes the reduction of greenhouse gas emissions by 2050 (Portugal.EU, 2021).

Nowadays, although Portuguese consumers are more aware of these issues, there is still a long way to go since, although 80% of Portuguese people claim to use reusable shopping bags, only 19% manage to regularly avoid plastic packaging.

Regarding pets, nowadays, dog parks are a trend in western countries because they enable owners to spend quality time with their pets in a controlled environment (Alho et al., 2017). In different areas of Portugal, their own drinking fountains and closed dog parks have been built, where animals can run and play safely, as is the one in Campo Grande Garden, as well as their own parks where they can do their needs.

4.2 Competitive Analysis

In 2021, around 90 million European families have at least one pet and consider them an integral part of the family. According to Statista data that can be analyzed in Appendix B, the number of families in the EU with pets has increased over the last 10 years, with a range of over 20M. This growth cause an increased demand but also the price escalation of pet care products and services. With the increase in the pet adoption rate, the industry has seen growth in the pet care market, which indicates that this is one of the most prominent markets globally. Adding to the fact that a significant increase in the number of small pet care service businesses in Europe is being witnessed, many market competitors are feeling encouraged to launch several services such as travel, training, hotels, and personalized subscription packages.

In the European Union, the European Pet Food Federation registered 92M dogs in 2021, an increase of 18% compared to 2020. At the European level, 46% of families have a pet animal, which involved an amount of 23.5B euros in services and products for pets. The "Europe Pet Care (Food Grooming Accessories & Healthcare) Market Outlook 2027" report evaluates the current market as well as its evolution in the coming years, having been valued at more than 36B euros, with a growth rate of 6% until 2028.

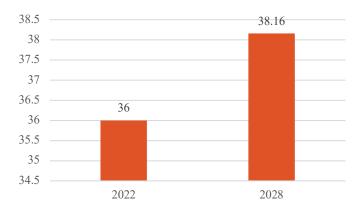


Figure 4.1 - Market Value in billions. Source: Europe Pet Care Market Outlook 2027

Analyzing data on Final Consumption of Families by type of goods and services, published by Pordata (2023), and considering that the Diverse Goods and Services heading includes all services for pets, a growth of more than 16% could be seen in the period 2015-2018 and a large drop in the following two years. Considering studies carried out by *Grande Consumo* (2023),

despite the demand for services for pets having increased by more than 40% in 2022, the available supply remains limited, which has increased prices for consumers.

According to data from Statista, the number of dogs in Portugal in 2020 was 2.08M, having increased in 2021 to 2.1M. Since 2017, the number of dogs in Portuguese families has increased, reaching a value of over 43% in 2020, a number that decreased in 2021 to 39%. These fluctuations are easily explained by the impacts of the Covid-19 pandemic.

4.2.1 Veterinary Services

According to the Portuguese Classification of Economic Activities (INE, 2007), this business incorporates veterinary activities with the Economic Activity Code 75000. Through the data available by the Bank of Portugal, the Portuguese market is growing, as the number of companies has increased by almost 13% (Appendix C) and sales by more than 68% since 2017 as can be seen in the graph below. These ratios, in 2021, are most represented in Lisbon, with Porto and the center area close to each other (Appendix D).

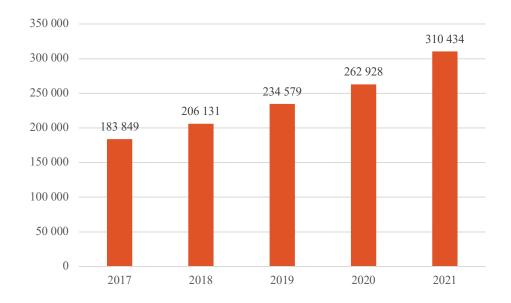


Figure 4.2 - Veterinary Services Sales in thousands of euros. Source: Banco de Portugal

According to BdP data (Appendix E) regarding the net margin in the percentage of income in the last 5 years for the 6 available countries: France, Italy, Belgium, Spain, Croatia, and the Czech Republic, it is possible to see the difference between these countries compared to Portugal. The country that stands out with the highest margin and growth is Belgium, with a 70% increase in net margin. The remaining countries vary between 3% (Italy) and 7% (Portugal). These data indicate that the market has generated a positive and growing net margin for companies over the last few years.

4.2.2 Other Services for Pet Animals

Since this business will incorporate several services for pets, such as hotel, day care and grooming services, it is necessary to consider CAE 96092. According to the data available, both the number of companies (Appendix F) and the value of sales increased by more than 100% in Portugal as can be seen below, with more than 50% of revenues concentrated in Lisbon (Appendix G). In this sector, the pandemic had several negative impacts, since in most of the countries mentioned above, a drop in the net margin was recorded in 2020, reaching negative values in Portugal (-8.3%), Croatia (-4.8%), and France (-0.5%) (Appendix H).

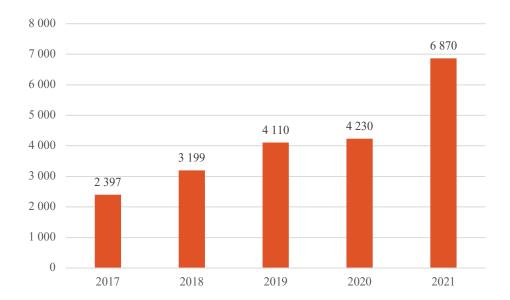


Figure 4.3 - Other Services for Pet Animals Sales in thousands of euros. Source: Banco de Portugal

4.2.3 Dog Shelter

In addition to the services mentioned above, it is also necessary to take into account the dog shelter that will be part of this project. As discussed previously, the number of dogs has increased as well as the care that families take with their animals, however, after the pandemic, there was also an increase in abandonments in Portugal, perhaps because the time spent at home has decreased again. In 2021, more than 43M abandonments were recorded, 28% more than in the previous year. Regarding the number of non-profit institutions, only 155 are registered: 43% shelters, 31% Animal Protection Associations, and the remaining individuals. According to

Carolina Bento, writer for *Público*, since the law prohibiting the slaughter of stray animals in shelters was approved, they have become overcrowded, with many having already sent animals abroad.

4.3 Competition Analysis

The location chosen was made taking into account several factors, such the location in the district of Lisbon as well as in the metropolitan area of Lisbon, the property, accesses, the growth of the population on the outskirts of Lisbon (PORDATA), and the average household income (Nuno Carregueiro, 2020). Therefore, since there is ownership of a property located in *Castanheira do Ribatejo*, municipality of *Vila Franca de Xira*, this was the final choice for the opening.

Competitor analysis is essential to identifying opportunities for competitive advantages (Grant, 2010). Considering the location of the property and in order to identify direct competitors, a study was carried out on the number of establishments offering the same services in the nearest areas, up to *Vila Franca de Xira*.

In the municipality of *Vila Franca de Xira*, there are 13 veterinary clinics, 11 grooming centers, and just 1 hotel for pets. Therefore, in order to carry out a more in-depth study of direct competitors, I will consider just clinics in the areas of *Vila Franca de Xira* and *Castanheira do Ribatejo*, as well as the hotel.

None of these businesses include all the services available in this project, which in itself becomes a competitive advantage. However, these companies already have notoriety and a rating above 4.5, so it is necessary to plan the best strategy in order to retain the customers.

The *Hotel Canino das Cachoeira* s is located 15 minutes from the current project and presents a completely different business vision. The price is 10€ per night however, it does not include food, and even the bed must be brought by the customer himself.

Taking into account the following competitors: *Veterinário da Vila in Vila Franca de Xira and Castanheira do Ribatejo, XiraVet Clínica Veterinária*, and *Vetri - Clínica Veterinária, Lda.*, and that these include both veterinary and grooming services, they are already able to demonstrate great versatility to their customers. According to the information provided by email

by these competitors, the price of grooming services is between $20 \in$ and $60 \in$ and veterinary services cost around 59 \in with two vaccines (Appendix I).

4.4 Porter's Five Forces

According to Michael Porter (1980), the attractiveness of the industry depends on five competitive forces: rivalry among existing competitors, threat of new entrances, bargaining power of supplies and buyers and threat of substitute products.

In general, this analysis suggests that in a market with intense competition and considerable initial cost, in order to be successful, a well-planned strategy, differentiation, and personalization of services are necessary with the aim of achieving customer loyalty.

Industry Attractiveness	Average
Rivarly among existing competitors	High
High number of competitors	
Increase in the number of pet service companies	
Difficult to differentiate products and services	
Threat of new entrances	Average
Existence of barriers to entry	
The initial capital is relatively high	
Easiness to replicate the concept	
Bargaininng power of suppliers	Low
Large number of suppliers	
Bargaininng power of buyers	High
There is no contractual loyalty	
Price sensitivity	
High number of options	
Threat of substitute products	Low
Substitute services practically non-existent	

4.5 Opportunities and Threats

After analyzing the external environment, the following opportunities and threats were defined:

- Opportunities
- O1. Increase in the adult and elderly populations;
- O2. Growing concern for animal welfare;
- O3. Increase in the number of pet animals;
- O4. Increased demand and growth in the market for pet care and veterinary services;
- O5. Partnerships with institutions and strategic brands;
- O6. Low direct competition in the chosen area.
 - o Threats
- T1. Increase in the number of companies;
- T2. Services at considerable cost to the customer;
- T3. Increase in inflation;
- T4. Economic instability experienced in Portugal and Europe;
- T5. Lack of pet market regulation.

5. Internal Analysis

At this stage of the business plan, an internal analysis will be carried out in order to identify the strengths and weaknesses of this proposal. To achieve this, the value chain will be analyzed using the McKinsey 7S Model, as it is a small company. According to Consuunt, if it were an analysis of a large company, it would make sense to analyze Michael Porter's value chain.

5.1 McKinsey 7S Model

This model is one of the best-known tools that analyzes the company's internal elements as interconnected and can influence organizational success. According to McKinsey, all elements are equally important, and therefore, only if they are all aligned can the company's success be achieved. Lowell Bryan (2020) defines that this model addresses the critical role of coordination, rather than structure, in organizational effectiveness. The seven essential elements are: Strategy, Structure, Systems, Skills, Staff, Style, and Shared Values. The first three elements are called "hard skills", and the remaining elements are called "soft skills" (Kaplan, 2005).

5.1.1 Hard Skills

- Strategy: This business will focus on a diversification strategy. Considering that in this sector it is difficult to have a significant differentiation in the services available, the strategy will involve the creation of service packages that will include veterinary services, grooming, hotel, and day care in order to achieve a competitive advantage. As there will be a dog shelter, special packs will also be provided for consumers who adopt at this shelter.
- Structure: Considering that the company will be part of microenterprises, the structure will be simple and flexible. The company's organization and management will be the responsibility of the company's director. In order to respond to operational services, professional specialists will be hired in different segments of the business. Taking into account the size of the company, multifunctionality, and good communication will be the key points to the success of this business.
- Systems: The existence of efficient and integrated systems, whether in terms of online reservations, operational or financial management, as well as customer satisfaction, is essential to guaranteeing high-quality services and a good experience for consumers.

5.1.2 Soft Skills

- Skills: Since employees will be in direct contact with dogs, they will have to be professionals who are experts in veterinary services and animal care, as well as having an extreme level of responsibility. Teamwork, transparency, affection, and good communication will also be essential in order to provide the best experience for customers and their animals.
- Staff: Due to the size of the company, initially the project, despite incorporating several services, will have a multipurpose team so that resources can be efficiently managed. Therefore, in addition to the company director, it will be essential to recruit employees from different areas, such as animal care professionals and veterinarians, so that they can meet all the animals and customer needs. As the company grows, it is important to maintain employee motivation as well as the alignment of goals and functions.
- Style: According to the CFI, a democratic leadership style occurs when a leader makes decisions based on information shared by team members. Therefore, it makes sense that in this business, this is the leadership style to adopt since the input of animal specialists will be fundamental to the perception of quality among customers and, therefore, the success of the company.
- Shared Values: The business values that must be communicated both internally and to customers will be based on animal welfare, transparency, trust, responsibility, team spirit, dedication, joy, and professionalism. These values will be aligned with the company's vision and mission.

5.2 Strengths and Weaknesses

Based on the analysis already carried out, the following strengths and weaknesses were identified, and the SWOT can be seen in attachment J:

- o Strengths
- S1. Diversification of services provided;
- S2. Convenience of facilities;
- S3. Good relationship with animals;

- S4. Location with different accesses;
- S5. High-quality professionals;
- S6. Low initial investment.
 - o Weaknesses
- W1. Location 40 minutes from downtown Lisbon;
- W2. Lack of initial notoriety;
- W3. Limited human resources;
- W4. Limited financial resources.

6. SWOT Analysis

Considering the strengths and weaknesses, as well as the previously defined opportunities and threats, the dynamic SWOT will be carried out. Using the method of Heinz Weihrich (1999), by crossing these factors, it was defined four groups of strategies: SO strategies, using strengths in order to maximize opportunities; WO strategies, reducing weaknesses by developing opportunities; ST strategies, using strengths to reduce threats; and WT strategies, avoiding threats by reducing weaknesses.

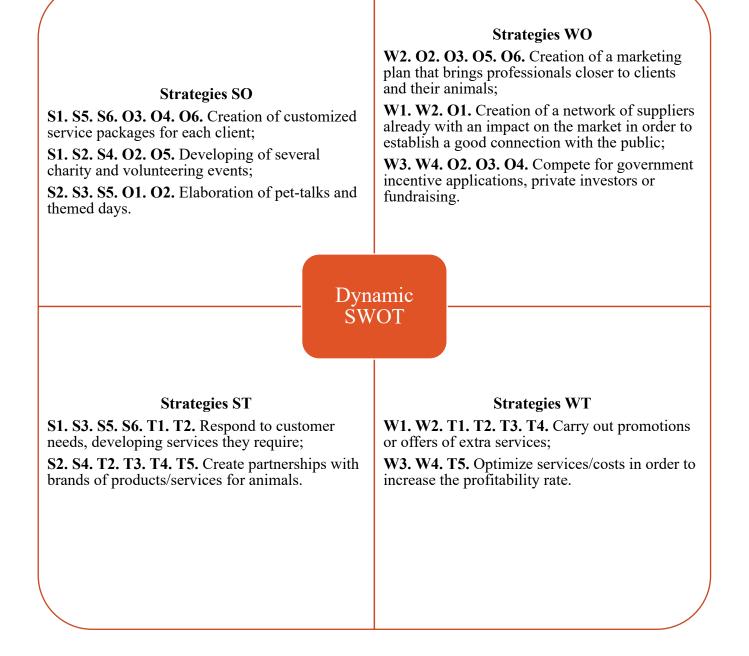


Figure 6.1 - Dynamic SWOT. Source: Self elaboration

7. Plan Goals

The main goal of this business plan is to evaluate the financial viability of opening a company with several services for dogs, developing all phases of the project for its final implementation. This plan also aims to show how the current abandonment problem can be reduced by having a profitable business as a core business. It is important that this business inspires families to adopt and provide all the necessary care for their animals.

To fulfill this business plan and map the company's path, general as well as specific objectives can be defined.

The company's general goals will include ensuring the financial viability of the project, notoriety, and customer satisfaction. At the end, increasing the area available for the services provided is also one of the biggest goals.

In order to fulfill the company's general goals, it is necessary to break them down into more specific ones, which are considered "management instruments that, on a day-to-day basis, guide the organization's activity in the desired direction" (Carvalho & Filipe, 2014, p. 134). According to Drucker (1955), these goals must be SMART: Specific, Measurable, Achievable, Results-oriented, and Time-bound. Therefore, the specific objectives of the business are as follows:

- Obtain an Internal Rate of Return (IRR) greater than 6.76%;
- Achieve a Discounted Payback Period of less than 5 years;
- Achieve an adoption rate of 100%;
- Reach a penetration rate of 5%;
- Achieve a business volume growth rate of more than 43% over the next 5 years;
- Establish three strategic partnerships in the first year.

8. Development Strategy

8.1 Vision, Mission and Values

The company's vision is being recognize as a company where animal well-being, safety, and comfort are the priority, so that animals can feel at home.

The company's mission is to provide a wide range of quality services for dogs, establishing a close and trusting relationship with the customer and guaranteeing their maximum satisfaction. It is also important to encourage the spirit of adoption in customers.

The values by which the company is managed will be as follows:

- o Service Quality
- o Trust
- o Transparency
- o Animal Care
- o Customer Satisfaction
- Responsibility
- o Professionalism
- \circ Dedication
- o Happiness

8.2 Critical Success Factors

According to Quintella, Rocha, and Alves (2005), critical success factors are essential empirical elements that allow companies to plan strategic movements in order to achieve business success. These variables are the basis for the company to identify the main areas on which it needs to focus to meet pre-established goals and ensure competitive advantage (Grant, 2010).

Taking into account all the previous information as well as the data collected in the survey carried out (Appendix A), the critical success factors to consider are the following:

- Diversity of services provided;
- Transparent and trusting relationship with the customer;
- Clean and safe environment;
- Quality of services provided, taking into account the specialized know-how of employees;
- Good location and proximity to the customer.

8.3 Competitive Strategy

"The two basic types of competitive advantage, combined with the scope of activities for which a firm seeks to achieve them, lead to three generic strategies for achieving above-average performance in an industry: cost leadership, differentiation, and focus." (Porter, 1985)

In cost strategy, the company focuses on being the producer with the lowest cost on the market while maintaining the quality of the services provided. In differentiation strategy, the company proposes to present a unique proposal, taking into account customer needs. The third strategy can be divided into a focus on cost or differentiation, considering only one segment of the market.

Considering the strategies as well as all the information presented previously, this company will have a strategy focused on differentiation since, within the animal services market, it will specialize in dogs, thus focusing on just one segment. This choice considers the fact that there are several services available, making it possible to have greater specialization and organization of staff as well as space.

9. Implementation Policies

Having defined the competitive strategy, it is now necessary to understand how this strategy will be developed through infrastructure, marketing, technology, organizational, and financial policies.

9.1 Infrastructures

Taking into account what has already been mentioned in the "Competition Analysis" section, this company is located in the Union of *Castanheira do Ribatejo* and *Cachoeiras* area, more precisely in *Quinta de S.João*. The property dates to 2002 and is located on *Rua António da Conceição Diniz, R.Ch. Drt.*, with a total gross private area of 138.26 m2. It also has a patio with an area of 157.5 m2 (Appendix K). As the store's condition is quite suitable, it only needs work to adapt it to the business presented.

After the adaptation works, it is possible to split the areas of the property as follows: a reception, where the founder will manage the company as well as welcome customers; a recreational area that will be divided between animals that are in day care and hotel services and those in shelter; two sleeping areas, where there will be 6 dog crates for hotel services and 4 for the dog shelter; an outdoor area that will be adapted so that the dogs can spend some of their time playing outside; and a veterinary office that will also be used for grooming services. For employees, there will be a pantry area, two bathrooms, and a small kitchen to provide the best possible environment.



Figure 9.1 - Available Areas. Source: Own photographs

9.2 Marketing Strategy

Marketing strategies are constantly changing, so it is important that they are developed taking into account the company's business model as well as the target audience (Mull, J. 2022). To make this strategy effective, it is essential to answer two questions: "Who are the customers we will serve?" and "What is the best way to serve these customers?" (Kotler et al., 2017, p. 35)

9.2.1 Segmentation and Targeting

To answer the first question, it is necessary to keep in mind that in this market, the target audience of the marketing strategy is different from the user of the services. Thus, there is an endless possible combination of target audience and users. To determine the audience, I had to segment the market into defined and cohesive groups. The segmentation criteria used were the following:

- Geographic: country and municipality of residence;
- Demographic: gender, age, social class, and average household income;
- Behavioral: type of pet, price sensitivity, concern for the animal's well-being, and practicality.

The company's target is therefore adults, mostly female, aged between 19 and 40, middle class, with an average household income of up to 3,000€, who mostly have short-haired dogs and/or medium, with weight ranges between 3kg and 25kg. They value aspects such as quality-price ratio, cleanliness, and hygiene, as well as the reputation and recommendation of the company.

9.2.2 Brand Positioning

"A product's position is the place the product occupies, relative to competitors' products, in consumers' minds." (Kotler et al., 2017, p. 92)

To define the positioning of a brand, it is necessary to consider two factors: identification and differentiation.

Regarding the customer's identification of the brand, it is intended to be in the market for specialized services for dogs.

Regarding the second factor, it is also necessary to consider the golden triangle of positioning, which includes consumer expectations, potential assets of services, and the positioning of competing products (Lendrevie, Lévy, Dionísio, & Rodrigues, 2015, p. 192). Considering what has already been analyzed previously, the aim is for the company to stand out from its competitors due to the diversity, practicality, and quality of services, as well as the quality-price ratio and concern for animal welfare.

9.2.3 Brand

According to Kotler, there are six characteristics that must be considered when choosing a brand: memorable, meaningful, likable, transferable, adaptable, and protectable. Thus, since the present business incorporates several services with the aim of creating a family atmosphere and, in the future, intends to incorporate other services and other animals, the name is broadly defined as *Clube dos Patudos*.

The logo as well as the colors used were chosen taking into account corporate goals and values, as they will be used in all internal and external communication as well as in the facilities, so that customers can recognize a trusted, family-oriented, dynamic, welcoming, and cheerful brand.



Figure 9.2 - Logo. Source: Self elaboration

9.2.4 Marketing Mix

When considering a service, it must be considered its particularities, namely the fact that it is intangible (Lovelock & Gummesson, 2004). Furthermore, it is crucial to keep in mind that people and processes play a fundamental role in service delivery. In this sense, as the traditional 4P's Marketing Mix approach does not include these variables, it will be used the 7P's Marketing Mix approach, which adds three elements to the traditional 4P's: "Product", "Price", "Distribution", "Promotion", "People", "Physical Evidence" and "Processes".

9.2.4.1 Product

When defining the services to be provided to the customer, the four product/service levels were taken into account: Basic Product, Expected Product, Augmented Product, and Potential Product (Kotler et al., 2017, p. 391).

The company's services will be based on pet sitting (hotel and day care) as well as veterinary and dog grooming services. The services will be provided with quality equipment and accessories suited to the needs of each animal and will also be carried out by appointment to ensure the best possible organization and safety.

The hotel and day care service will incorporate leisure activities, trips outside, food, and hygiene care appropriate to the condition and age of each animal. These services will be available with daily payments or in 1-week packages.

Washing and grooming services will also be adapted to the condition of each animal as well as its size, type of fur, and skin.

The veterinary services available will be essentially related to routine aspects, and for urgent purposes or more complex interventions, there will be a partnership with a more specialized veterinary clinic in the area.

9.2.4.2 Price

To define the price of services that best suit this business, it may be important to take into account different factors such as "Costs", "Break-Even and Profit Margin", "Value perceived by the consumer" or "Price charged by the competition" (Kotler et al., 2017).

For *Clube dos Patudos*, the price charged by the competition was considered as well as the implicit costs of opening the business. Veterinary services will have an average price of 50ε , with all basic vaccines and pills included, while day care and hotel services will have a daily price of 11ε and 16ε , respectively, which will include food and water as well as all necessary care. Staying at the hotel for more than 3 nights also includes bath services.

Regarding baths and grooming services, prices are divided according to the size of the animal as well as the type of fur, as can be seen in the table below. The price list includes bathing and grooming, however if only one of the services is booked this is half the price.

Bath and Grooming		Size		
		Small	Average	Big
Fur	Short	20€	25€	35€
	Medium	25€	30€	40€
	Long	35€	40€	45€

Table 9.1 - Bath and Grooming Prices. Source: Self elaboration

9.2.4.3 Distribution

Distribution defines how and through which channels value is delivered to the customer. Taking into account the location of the company as well as the nature of the services, these will be delivered in the physical space. Through the internet and the creation of diverse social media, it will be possible to make appointments, clarify doubts, and publicize the company's values. Appointments can also be made in person, by phone, or by email. The company will also have a strong presence on social media as well as relationships with canine associations and pet lovers in order to create a greater relationship with its customers.

In addition to this traditional approach, I aim to create agreements with veterinary clinics, pet shops, companies, and influencers in order to create more value for customers.

9.2.4.4 Promotion

According to Kotler, communication must incorporate eight variables: advertising, sales promotion, events and experiences, public relations and publicity, online and social media marketing, mobile marketing, direct and database marketing and personal marketing (Kotler & Keller, Marketing Management, 2015, p. 582).

o Advertising

In terms of advertising, essentially in the pre-launch and launch phases, flyers and business cards will be distributed in the company as well as among the partners in order to create visibility and awareness. These flyers will include a 5% discount code that can be used in the first month of launch.

Sales Promotion

In order to increase engagement, 5% discounts will be distributed in the first month, and throughout the first year, six lotteries will be held on social media, in which the prizes will be bathing services as well as trial days at day care and hotel.

o Sales Force

In service marketing, all members of the process play a fundamental role, particularly those who are directly in contact with the customer (Seaton & Bennett, 2000).

Therefore, as the people factor influences not only the delivery of the service itself but also customer satisfaction, it is necessary for employees to maintain their focus on the customer and to be able to develop a trusting relationship with them.

Public Relations

On the company's opening day, and taking into account that it is necessary to create an impact in order to attract as many customers as possible, a small event will be held where a visit to the facilities and services will be offered. Some digital influencers will be invited, as well as their animals, in order to create more impact both in person and online.

In addition to this event, the company will be open to carrying out volunteer activities for other companies or individuals to increase team spirit as well as mutual help.

With the aim of creating dynamism and activities for both dogs and their owners, the company will also have themed days throughout the year, such as dog day, pet day, abandoned dog day, among others. On these days, it will make sense to invite an influencer or a professional in the field in order to create a more festive atmosphere and, at the same time, a moment of knowledge.

Direct Marketing

In this case, email databases will be used, provided by customers who authorize the use of their data for promotional purposes, such as receiving emails with the company or partner services as well as reminders for upcoming appointments. A list of subscribers will also be created who agree to receive the monthly newsletter, which will include promotions, a calendar with upcoming events, as well as small topics related to dogs and the latest news in the sector. The platform to be used in the initial period will be Hubstot, as it is one of the most recognized platforms worldwide, with several services incorporated into the free plan.

Digital Marketing

Nowadays, social networks are the best way to connect customers to the company, providing a relationship of proximity and trust. Thus, in terms of social networks, those that are currently most used by the target audience will be created: Facebook and Instagram, where photos and videos of day-to-day life at the club, cleaning and animal feeding tips, feedback and testimonials

from clients, the development of the dogs that will be in the shelter, and their relationship with the other animals will be shared.

In addition, a podcast will be created, where there will be shared interviews with professionals in the field on several topics, including activities, nutrition, common illnesses, and treatments, among other topics that bring value to customers.

o Partnerships

As previously mentioned, it will be necessary to make partnerships with other veterinary clinics and pet shops in order to be able to refer to clients when necessary. Therefore, this company, by associating itself with companies already established in the market and with its own customers, will be able to increase recognition and notoriety without ever stopping to provide support to its customers.

Taking into account the current lifestyle, it will make sense to establish partnerships with animal product brands as well as digital influencers concerned with these causes. Influencers such as Sofia Barbosa or Ana Guiomar will bring greater recognition to the brand as well as their perspective on the animal world.

9.2.4.5 People

One of the main components of a service is people and the impression they make on customers. For this reason, employees must be specialized and able to empathize with animals and their owners. It will be necessary for them to have the necessary care and affection for dogs, therefore, and for this purpose, only specialized, communicative, team-spirited, empathetic, and kind people will be hired, as previously mentioned. In addition to these factors, the company will focus on developing their interpersonal and professional skills over time, with the aim of not only maintaining their motivation but also their knowledge.

9.2.4.6 Physical Evidence

The way the physical environment is presented plays a crucial role in customers' service quality perception. It is important to take care of facilities, landscape, decoration, furniture, equipment, or employee uniforms. These tangible service elements contribute to the overall opinion customers have of the service and are essential to creating a positive and memorable experience (Lovelock & Wirtz, 2016).

In this company, it will be important that everything is as clean and disinfected as possible in order to create a bond of trust and safety with the customer. The interior design will be simple, cozy, modern, welcoming, and in accordance with the company's values to create harmony with the client and provide the best experience for both customers and their animals. The main area will be divided into two sections, one for the company's clients and the other dedicated to the abandoned animal. Both spaces will have leisure and food spaces.

The employee uniform will be practical, light, and in accordance with the functions and spirit of the company.

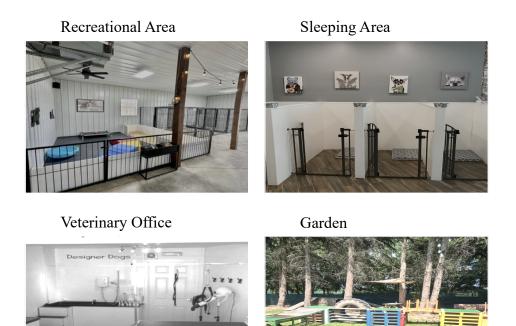


Figure 9.3 - Decoration Example. Source: Pinterest

9.2.4.7 Processes

For the service provided to be consistent and of the highest possible quality, it is necessary to guarantee the efficiency of the company's main processes (Bowie & Buttle, 2004). The fundamental processes can be divided into three different phases: pre-service, service, and post-service.

In the pre-service phase, it is necessary to ensure that customers are able to make appointments by phone, email, social media, or in person, as well as the creation of a customer file with their main information as well as their animals, such as name, address, contact details, animal health problems, exceptional care required, fur type, breed, and weight. The company's services, day-to-day activities, partnerships established, and customer feedback will also be shared through social media.

During the service period, full support will be provided to the animals and their owners. Payment can be made at the time of booking or when the customer leaves the animal at the company using cash, *MBway* or an ATM.

At the post-service stage, it will be implied that the company collects customer feedback and monitors the entire process until a new appointment is made.

9.3 Technology Policy

For the company's success, investment in updated technology will be decisive. Since one of the most important factors for customers will be the safety of the animals, it will therefore be necessary to invest in security cameras and sensors as well as integrated management software that allows the organization of the company, including the management of customers, suppliers, stocks, services, and invoicing.

Regarding to technological equipment, one computer will be needed, which will be used at reception as well as for the daily management of the company, an ATM terminal, and all the technologies for employee functions, such as benches, bathtubs, and dryers. All lighting will be LED technology to reduce electrical consumption, and the air conditioning will be centrally managed.

9.4 Organizational Structure

As already mentioned, the structure will be simple and flexible, with only two levels that will interact closely, considering the leadership style adopted. The company will be managed and organized by the company's founder as well as three specialized full-time employees: 1

veterinarian, 1 veterinary nurse, and 1 veterinary assistant. The number of employees will grow depending on the company's evolution and needs.

Cleaning and accounting services will be contracted on an outsourcing monthly basis, while legal support services will only be contracted when necessary. For recruitment and selection, specialized candidates will be selected through CV analysis and an interview with the company director. Factors such as academic background, relevant experience, proactivity, versatility, and responsibility will be considered.

The company's manager and founder will be responsible for operational, financial, and administrative activities, supplier management, external services and partnerships, communication as well as reception and management of customers and their relationships. The director's salary will be $1,153 \in$ gross per month, with a food allowance of $6 \in$ for each day of work, this value will be the same for the other employees.

The veterinarian will oversee all activities that include animal health activities. The veterinary nurse will assist the doctor and will take care of basic care as well as activities and walking. The veterinary assistant will be in charge of tasks ranging from bathing and grooming to maintaining cleaning and animal welfare. Thus, employees' initial remuneration will be $1,171\in$, 823 \in , and 769 \in , respectively (Appendix L).

9.5 Financial Policy

Considering the analysis already carried out, it is now necessary to understand the project's investment needs, particularly in terms of works and equipment, as well as how it will be financed.

9.5.1 Investment

Taking into account that the property was an investment prior to this business plan, its purchase will not be considered, but will instead be considered an opportunity cost concerning to the income that could be received if the property were available. This value is based on the price per m2 of the area as well as the energy certificate. Therefore, for energy level D, as is the case, a price of $7 \notin m2$ was considered, which amounts to an annual value of $11,592 \notin$.

To open this business, it will be necessary to carry out works and purchase specialized equipment. Regarding the works to adapt and improve the space, these were budgeted at 10,055, based on the necessary adaptations and the contacts made (Appendix M, N, O and P). As mentioned, it will also be necessary to purchase furniture and equipment for the company's current activity, from technology and veterinary benches to clothing and computers, which will amount to 4,127 (Appendix Q).

In accordance with Regulatory Decree 25/2009, of September 14, depreciation of all works carried out as well as equipment acquired may follow the constant quota method, considering the useful life periods referred to in the same decree (Appendix R).

All of the aforementioned investments will be made in the end of 2023, with reinvestments being made in the remaining years of the project at the end of the equipment's useful life. The reinvestment value considered takes into account the value invested in 2023, adjusted with the inflation rate for the corresponding year (Appendix S).

9.5.2 Financing

Taking into account the initial investment detailed, the amount required for financing will be 17,445€, which includes the amounts mentioned above plus VAT (23%). Therefore, given that my own capital has already been previously invested in the property, the entire amount mentioned will be financed by debt.

For debt capital, a bank loan worth 18,000€ was negotiated with Millennium BCP Bank for a period of 2 years at a nominal fixed rate of 6% per year (Appendix T). Interest payments and capital repayments will be made on a monthly basis and can be found in the financing map (Appendix U).

10. Requirements for Implementation

To implement this business plan, it will be necessary to complete the following steps:

- Request a Certificate of Admissibility from the Institute of Registries and Notaries to approve the company name;
- Constitution of an Individual Quota Company, by the author of the business plan, at *Empresa na Hora* branch with CAE 75000 and CAE 96092. A bank deposit of the share capital will be made, as will commercial registration, the appointment of the Official Accounts Technician, the delivery of a declaration of the beginning of activity, and registration with social security within the established legal deadlines;
- Request for issuing prior authorization to start activity;
- Notify DGAV of the company's opening;
- Taking out the bank loan;
- Hiring external services;
- Execution of renovation works;
- o Acquisition of all furniture, equipment, and products for the activity;
- o Acquisition and installation of management software;
- Recruitment and selection of employees;
- Creation of the company's social networks as well as the establishment of strategic partnerships;
- Implementation of the marketing strategy;
- Inauguration event and opening to the public.

11. Financial Evaluation

In order to carry out the financial evaluation, the project's cash flows will firstly be determined. Then, to assess the viability of the project, some evaluation criteria will be calculated, such as the Net Present Value (NPV), the Internal Rate of Return (IRR), the Profitability Index (PI), the Discounted Payback as well as the main viability indicators.

Considering that these analyses are based on forecast values, sensitivity and scenario analyses will be carried out to verify how the change of some elements may impact the viability of the project. To make this analysis as realistic as possible, the inflation forecast was applied to construct an analysis at current prices (Appendix V). Furthermore, the useful lifetime of the project is set to be 5 years, since most veterinary equipment has the same useful lifetime, starting in 2024.

11.1 Sales and Services Provided

To calculate the number of services provided, it was necessary to start by identifying the possible number of customers in the municipality of *Vila Franca de Xira* as well as defining the desired market share.

Since the company's opening area does not have many competitors, existing ones have a strong relationship with their customers. Therefore, the initial market share is intended to be just 5%. Therefore, to estimate the number of possible customers, the following criteria were used:

- Number of residents in the municipality of *Vila Franca de Xira* in 2021 137,529 people (PORDATA, 2023);
- Number of individuals per family 3.4 people (PORDATA, 2023);
- Number of families 40,450 families;
- Number of families with at least 1 pet (39%) 15,776 families (Bedford, E., 2023);
- Number of families with at least 1 dog (39%) 6,153 families (Fediaf, 2022);
- Market share (5%) 308 families;

Beyond that and to produce a more detailed and realistic analysis, it was necessary to understand how the different services would be used by customers (Appendix W).

Taking into account the surveys collected (Appendix A), for bathing and grooming services, it was decided to consider that most families will have a medium-sized and medium-haired dog and that this is the most requested service. Thus, all 308 animals will use these services at least three times a year.

For veterinary services and considering that at least 1 vaccine and 1 deworming are necessary per year, it was assumed that all clients would need at least 2 routine appointments annually.

Also, it was decided that 15% of customers would not use day care services. When used, this kind of service is requested more than once, and so, it was applied that this service would

be used at least five days a year. Regarding hotel services, it was considered that all customers would book these services for at least one week over the year.¹

Over the next 5 years, it was considered that bathing and grooming services, as well as veterinary services, as they are most requested (Appendix A), will have a growth rate of 10%, while day care and hotel services will only have a growth rate of 2.5%.

11.2 External Supplies

This item considered all expected expenses relating to the acquisition of products and services intended for internal consumption provided by external entities, such as products to be used in bathing and grooming, feed and vaccines, cleaning services, telecommunications, energy, water, security, business opening services, condominium, insurance and invoicing programs, marketing, accounting, and ATM services.

To calculate the shampoo to be used in baths, animals in the grooming service as well as those in hotel and shelter were considered, with 12.5 ml being used in a bath. Regarding to perfume, in addition to these, it was assumed also the animals from day care, with one package corresponding to 125 usages. To calculate the feed, animals from day care, hotel, and shelter were taking into account which led to recommended daily consumption of 190g (Kiwoko, 2023).

Vaccines and pills would be administered at veterinary appointments as well as to shelter dogs (Appendix X).

Regarding external services, water expense would depend on the number of baths administered, with an average of 70 liters per bath. Estimated expenses for energy, cleaning, security, telecommunications, marketing, insurance, ATM, accounting, invoicing, and services for opening a business were consulted online and are available in greater detail in Appendix Y. The condominium of the building has a value of 6€/month and was detailed in the purchase contract.

¹ For this calculation, it was taken into account that there is an area for only 6 dog crates for hotel services, which, if used for 52 weeks, could house a maximum of 312 dogs annually.

11.3 Investment in Working Capital

After calculating the operational cash flows and considering the assumptions applied for: the average collection period, average credit period, payment of VAT, and social security regularization, as well as the rates used, the working capital needs were calculated. Since customers will pay at the time of service, the customer's item is null. The average credit period was based on sector data available at Bank of Portugal website.

The reduced VAT rate of 6% was applied to vaccines and pills as well as external supplies like water and energy services. The CAV has a monthly value of 2.85€, and VAT is also at a reduced rate. According to OMV, only veterinary services have VAT at 6%. The remaining services and products have VAT at the standard rate of 23%.

According to Article 87 of the Corporate Income Tax Code, the IRC rate to be applied to this business is 21%. Charges for personnel costs include 23.75% social security plus 1.25% insurance for employees.

The average VAT payment period was three months, and the SS regularization period was one month.

After the year of investment, working capital is always negative, as resources exceed needs (Appendix Z).

11.4 Cash Flow Map

The CF map was calculated based on the services provided as well as expenses on external supplies, labor costs, depreciations, taxes, investments and disinvestments in fixed capital, and Working Capital. At the end of 5 years of operation, in the year 2029. It was considered that disinvestment in fixed capital and working capital would occur, considering that the residual value of fixed capital would be equal to its net accounting value.

Cash flows are positive in the first year of operation, however the accumulated CF's are positive only from 2026 onwards, as it's when the project's cash flows are able to cover the negative values of previous years (Appendix AA).

11.5 Income Statement

Considering all the previous calculations as well as the assumptions made, it was possible to prepare the income statement. As the net income is positive since year 1, distributing of dividends was defined, being 50% of the net income (Appendix AB).

11.6 Financial Plan

Through the difference between financial resources and needs, it was possible to calculate the financial plan, through which it is concluded that there is margin for new financial investments. For these financial investments was assumed a 1% interest rate, according to the normal rate for savings certificates in recent years. In order to have final availability, it would be considered 2% of Sales plus 5% of CAPEX (Appendix AC).

11.7 Balance Sheet

By analyzing the forecast balance sheet, it is possible to note that one of the main items, followed by tangible fixed assets, are the financial investments calculated in the financial plan. Over the years, there is a progressive decrease in liabilities, particularly caused by the repayment of the bank loan, which was nonexistent since 2025. In addition, it was decided to consider a share capital of $5,000 \in$ to face any problems that may arise in the company as well as to demonstrate security to the chosen banking entity (Appendix AD).

11.8 Evaluation Criteria

To evaluate the project by calculating the NPV, IRR, Profitability Index, and Discounted Payback, it is first necessary to update the project's cash flows using a discount rate. Therefore, to assess the economic viability, r_U can be calculated by the Capital Asset Pricing Model (CAPM) (Appendix AE):

$$r = r_f + \beta_U [E(r_m) - r_f] \tag{1}$$

 β_U represents the unlevered beta, $[E(r_m) - r_f]$ the market risk premium, and r_f the risk-free rate.

In order to determine β_U it is necessary to consider the following formula:

$$\beta_U = \frac{\beta_L}{1 + (1+T) * \frac{Debt}{Eauity}}$$
(2)

Where β_L represents the levered beta and T the tax rate. In order to realistically evaluate this project, it was necessary to find a comparable way to calculate the project's β_U . To this end, there were three possible alternatives: consider a similar company, consider the sector or consider the market. After an intense research, the first option was considered as the most viable, through the company Petco, an American company that offers various services for pets, however it is necessary to bear in mind that as this company is in the American market, has some differences from the European one and which already has a history, may slightly change the β_U of this project. Therefore, taking into account the data available for this company in Yahoo! Finance, a β_L of 1.28, a corporate tax of 28% and a D/E of 125.74% were considered.

Therefore, to calculate β_U the risk-free rate would be the interest rate on 10-year German Treasury bonds. Regarding the unlevered beta of the sector, the value resulting from formula number 2 was considered, and the market risk premium was calculated in line to the U.S. equity risk with a value of 5.00% and the country risk premium for Portugal with a value of 2.89%. All these figures may be found in the Damodaran analysis.

$$r = 2.89\% + 0.49[7.89\%]$$

 $r = 6.76\%$

After the discount rate and updated cash flows, it is possible to carry out a feasibility analysis of this project (Appendix AF).

The project's NPV is positive, 20,161, which means that the project is viable and so the investment is recovered, repaying the capital invested at the desired rate and also generating a surplus of 20,161.

Regarding the IRR, the maximum profitability rate of the project, reaches 39.55%, and the MIRR has a value of 21.34%. Since it is higher than the minimum remuneration rate required, the project receives another stamp of financial viability.

The PI, the absolute return of the project, has a value of 2.16. This metric means that for every euro of capital invested, the project generates 2.16€ in cash flow. Once its value is greater than 1, the viability of the project is verified again.

Finally, the Discounted Payback, a risk indicator, has a value of 2.19 years, that is, the investment is recovered in approximately 2 years and 2 months, considerably earlier than the 5 years of the project and therefore, reinforces the viability of the project.

Taking into account all the criteria mentioned, the project is considered economically and financially viable.

As previously mentioned, it is also important to understand its impact on the viability of the project through the calculation of the adjusted present value (APV). For this, it is necessary to sum to the NPV the total value of the tax savings, updated at the cost rate of debt, that is, the Net Present Value of the Financing Decision (NPVF). The APV considers the financial cash flows of the periods in question, that is, the amount obtained, interests, commissions, and stamp tax, as well as the associated tax benefits. These cash flows are then updated to the gross all-in cost of the financing, using the IRR formula. Other method is to calculate the NPVF by updating the tax savings at the aforementioned rate.

$$APV = NPV + NPVF \tag{3}$$

Since NPVF has a value of $352 \in$, APV has a value of $20,513 \in$, which confirms the viability of the company's financial structure (Appendix U).

11.9 Main Indicators

In order to complete the evaluation of this project, an analysis of several indicators and ratios that show the company's situation and evolution were carried out (Appendix AG).

Through the profitability ratios, the ROIC, considering the opportunity cost, is negative in the first year but increases until 2026, falling in the following year. This decrease can be explained by the investment in hiring one more employee. On the other hand, ROE decreases until 2027, but then it has a slight increase in the last year. While ROE reaches its maximum value in the first year, ROIC reaches it in the last year of the project, with a value of 68.46% and 404.17%, respectively.

In regards to the project's risk indicators, the Operating Level of Leverage and the Financial Level of Leverage were analyzed, with higher values in the first. While the first indicator, this represents exposure to economic risk and "what variation in percentage of operating results is caused by a variation in percentage of the activity volume", the second represents the financial risk, "the variation in percentage that occurs in the results before taxes arising from a change in percentage of operating results".

In terms of financial indicators, financial autonomy and Times Interest Earned were analyzed. The first increases over the years, reaching its maximum value in the last year of the project at 83.99%. Through the sector analysis from Bank of Portugal data, the project presents values above average for pet services, since the financial autonomy is negative, while for veterinary services, it is around 44.66%.

The economic indicators considered include the business growth rate, which varied between 9% and 10% in the second and third years. Due to the more pronounced growth in the first years of the project, the net and operational profitability of sales will also reach their maximum value in 2026.

Analyzing the economic-financial indicators, ROA shows positive values from the first year onwards, with the maximum increase in 2025, the year in which it reaches its maximum value. Comparing with BdP sector data, the project's ROA is well above the average for both animal services and veterinary services, -8.3% and 14.58%, respectively. Asset turnover, "an important indicator as a measure of efficiency", always presents values greater than 1.

Taking into account other indicators such as general liquidity (in this case, equal to reduced), this is always greater than 100%, except in the second year, and well above the average of the last 5 years of BdP data for pet services (74.22%) but not for veterinary services (183.78%).

11.10 Sensitivity and Break-Even Point Analysis

Bearing in mind that this project is based on assumptions, projections, and predictions, it entails some risks and uncertainty. Therefore, it is necessary to take into account these factors and variations that may affect the viability of the project. A sensitivity analysis (Appendix AH) was developed as well as a break-even point analysis (Appendix AI) of the variables that could have the highest impact on the company. The variables considered were sales, labor costs, external supplies, and price index, with variations of 10% and 5% up and down and CAPEX, risk-free rate, discount rate, and opportunity cost with variations of 20% and 10% up and down.

In order to carry out a study on the variation in sales, external supplies, labor costs, and the price index, it was necessary to use multipliers, since they are components that vary over the years.

Analyzing the sales multiplier, this variable is one of the most volatile since a variation of -5% results in an NPV of $288 \in$ and a variation of -10% results in an NPV of $-18,591 \in$. On the positive side, these variations result in an NPV of $40,033 \in$ and $60,899 \in$, respectively. The breakeven point is reached with a decrease of just over 5%.

A variation of +10% in both fixed and variable external supplies multiplier does not make the NPV negative. This variation in both costs simultaneously results in a NPV of 13,977€. The substantial difference between both costs is that the break-even point for fixed costs is reached with an increase of 134.80% and for variables with an increase of 44.43%.

Another variable that influences the project is the labor costs since the break-even point is reached with a variation of just over +7%. A variation of +5% results in a NPV of 7,078€ and +10% in -6,660€. A variation of -5% and -10% results in a NPV of 33,244€ and 45,673€, respectively.

Regarding the CAPEX, discount rate, and risk-free rate, bigger variations were tested in order to notice substantial impacts on the project, however, through the calculation of the breakeven point, only variations well above 100% could have an impact on this project. The same variations were applied to the opportunity cost, however, this reaches the break-even point well below 100%, since a variation above 42.14% makes the project unfeasible.

Ultimately, the price index used to do this project in current prices, based on the projection of inflation rates, reaches the break-even point with a change of -2.37%.

11.11 Scenario Analysis

Taking into account the sensitivity analyses carried out previously, the variables with the highest impact on the project were identified, that is, those in which the break-even point is reached with variations below 100%: sales, labor costs, variable external supplies, opportunity cost and

price index, then two scenarios were created: pessimistic (Appendix AJ) and optimistic (Appendix AK).

In the first scenario, the sales over the 5-year lifetime of the project would increase by 2% while labor and variable costs would decrease by 2%, the opportunity cost would decrease by 5%, and the price index would increase by 1%.

In the pessimistic scenario, it was considered that sales would decrease by 2%, labor and variable costs would increase by 2%, the opportunity cost would increase by 5%, and the price index would decrease by 1%.

Assessing the viability of the project in the pessimistic scenario, it continues to be viable, as it has a NPV of 3,567, an IRR of 13.05%, above the discount rate and a PI of 1.2045. The investment is recovered in 4 years and 2 days. In the optimistic scenario, the NPV becomes 37,083, IRR being 63.89% and PI being 3.1258. In this scenario the investment is recovered in 1 year and 6 months.

This project can be influenced by several factors and variations, however, taking into account the scenarios and analyses carried out, the project is considered globally viable.

Conclusion

The main goal of this project was to develop a business plan for a company that includes several services for dogs, such as hotel, day care, grooming, and veterinary services, as well as a dog shelter. In the final stage, in order to draw final conclusions, an assessment of the economic and financial viability of the *Clube dos Patudos* was made.

In recent years, there has been a growing concern for animal welfare, however, taking into account the increase in the number of dogs, the number of abandonments remains quite high in today's society.

On the other hand, the demand for all types of services for pets has been increasing, which leads to speculation about the sharp growth of the pet market. In order to respond to this demand, the services available must be adapted to the different needs of the animal as well as their owner.

Considering all these factors, investing in this type of service is considered attractive. In this way, taking into account the location chosen due to the low number of competitors and the high population as well as the needs of its customers, the *Clube dos Patudos* will essentially be a company where animals can feel at home and where they can have all their needs met.

At the economic analysis level, this project is globally viable, presenting a NPV of 20,161, an IRR of 39.55%, a PI of 2.1557 and a payback period of 2.19. As for the financial analysis, considering the financing, the APV is 20,544, which corroborates the viability of the project.

Regarding the sensitivity analysis, it demonstrates that the most impactful variables on the viability of this project are sales, labor costs, variable external supplies, price index and the opportunity cost. In the pessimistic scenario, these variables have a very negative impact, but it remains viable.

During the elaboration of this thesis, it was possible to identify some limitations that could affect the viability of this project. Taking into account the market in which it operates, the lack of clarity, regulation, and information in Portugal may be a problem to face. Furthermore, taking into account the lack of information on companies of this type, it is necessary to take into account that the data used in the financial assessment was based on a company already well established in the market.

Therefore, it is also important to consider that, considering this market, a strong initial advertising strategy is vital in order to establish a relationship of trust with the customer. Over time, it is also necessary to study consumer trends and respond to animals and their owner's needs.

After implementing the project and at the end of 5 years of useful lifetime, it will be necessary to evaluate the maintenance or expansion of the company. If it is advantageous to expand, it would be interesting to be able to incorporate more services, such as self-bathing or transport service, or to introduce the same services for cats. In addition to these ideas, it will be important to increase the shelter in order to further contribute to increasing the adoption rate.

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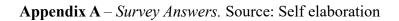
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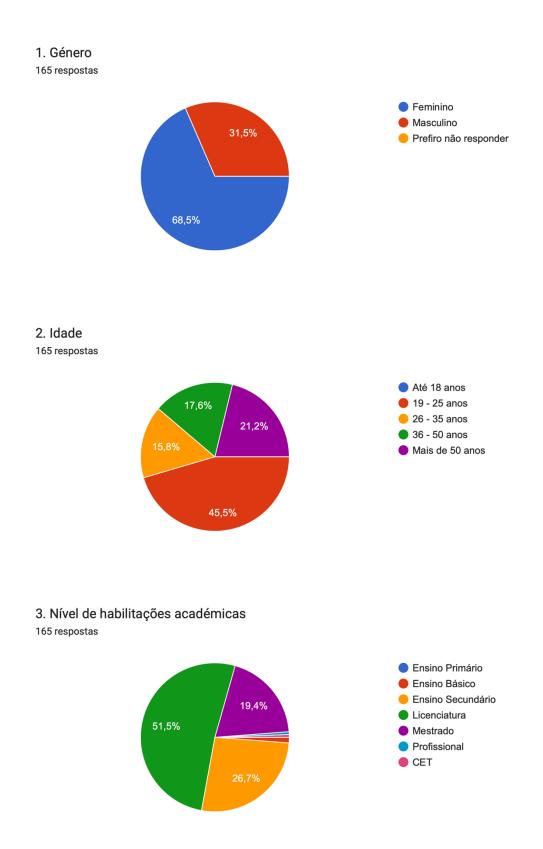
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- ZU. *Ração para Cão Adulto Active Frango*. Continente. https://www.zu.pt/produto/racao-para-cao-adulto-active-frango-purina-dog-chow-5339654.html

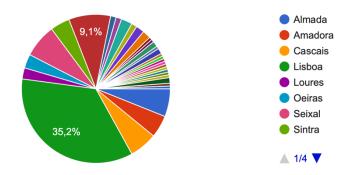
Appendices





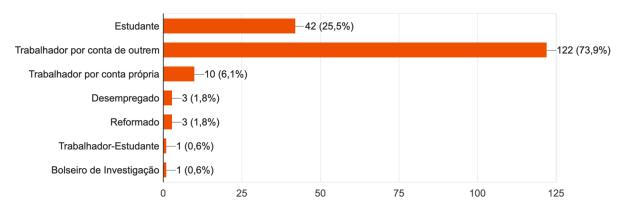
4. Concelho de residência

165 respostas

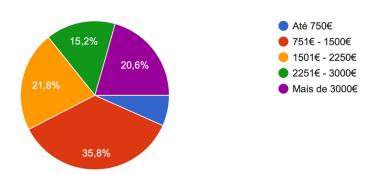


5. Situação Profissional

165 respostas

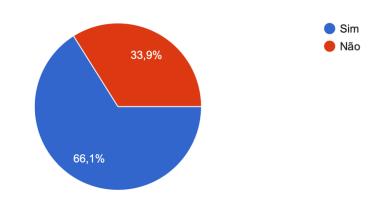


6. Rendimento líquido mensal do seu agregado familiar 165 respostas



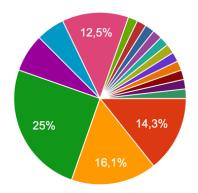
7. Tem algum animal de companhia?

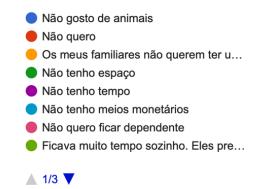
165 respostas



Se respondeu não à pergunta anterior, responda à seguinte pergunta.

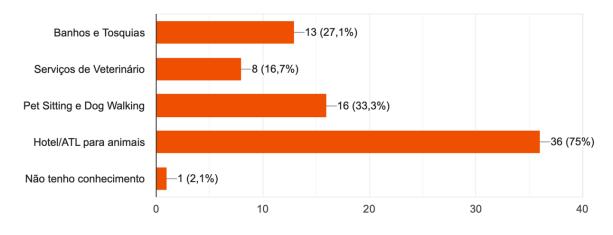
8. Porquê? 56 respostas



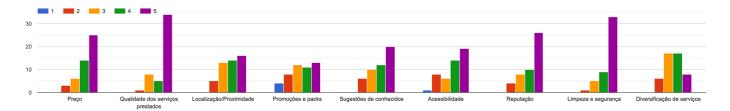


9. Quais destes serviços fazem falta na sua zona de residência?

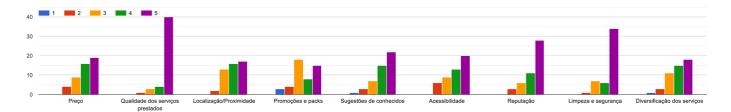
48 respostas



10. Classifique quanto à importância os fatores listados abaixo no momento de escolher um Hotel/ATL para o seu animal (Considere a escala de 1 "nada importante"):

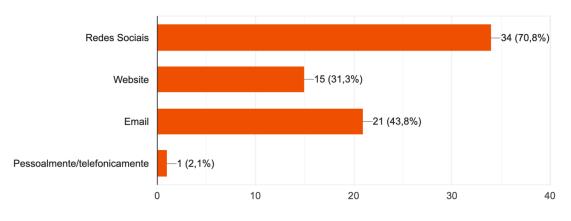


11. Classifique quanto à importância os fatores listados abaixo no momento de escolher um Veterinário para o seu animal (Considere a escala de 1 "nada importante"):

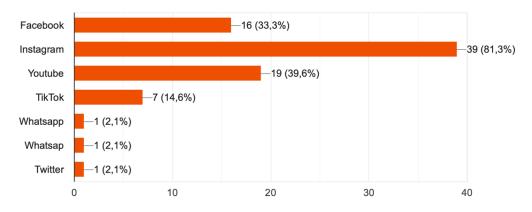


12. Que tipo de meio de comunicação prefere?

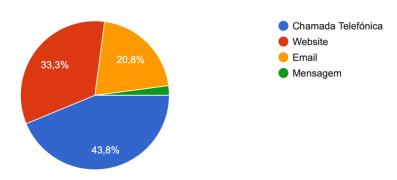
48 respostas



13. Quais as redes sociais que utiliza com maior frequência? ^{48 respostas}

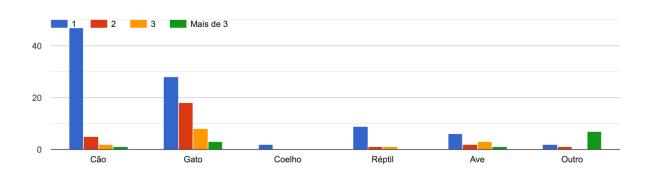


14. Ao efetuar marcações prefere que estas sejam de que forma? ^{48 respostas}

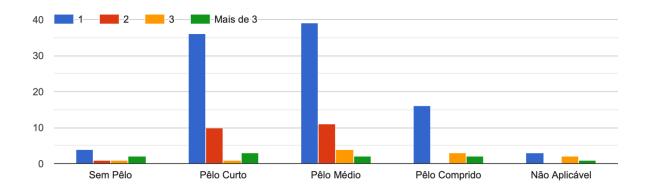


Se respondeu sim à pergunta 7, responda às seguintes perguntas.

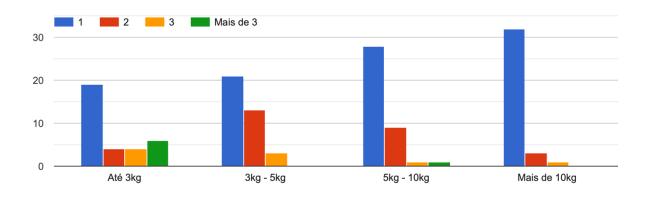
8. Que tipo de animal de estimação tem e quantos?



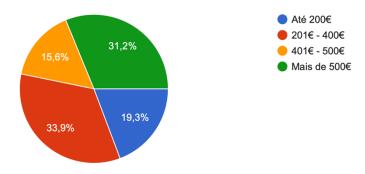
9. Indique quantos animais de estimação tem de acordo com os seguintes tipos de pêlo



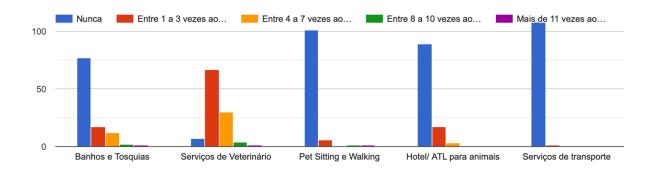
10. Indique quantos animais tem considerando o peso



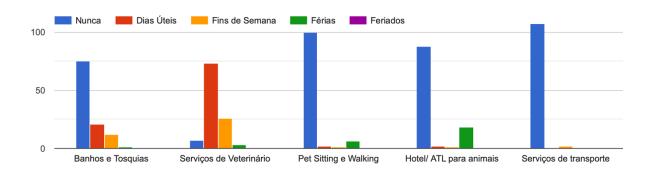
11. Quanto gasta ao ano, em média com o seu animal de estimação? 109 respostas



12. Utiliza ou já utilizou algum destes serviços? Se sim, com que frequência?

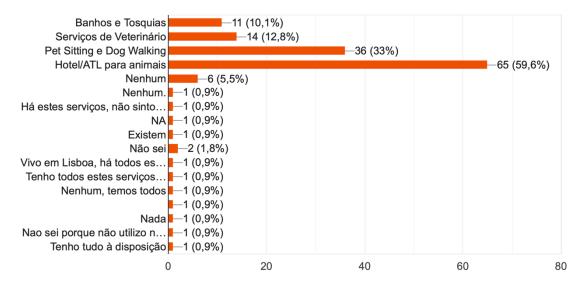


13. Em que dias utiliza os seguintes serviços?

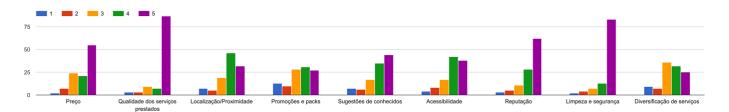


14. Quais destes serviços fazem falta na sua zona de residência?

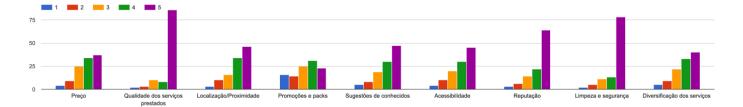
109 respostas



15. Classifique quanto à importância os fatores listados abaixo no momento de escolher um Hotel/ATL para o seu animal (Considere a escala de 1 "nada importante"):

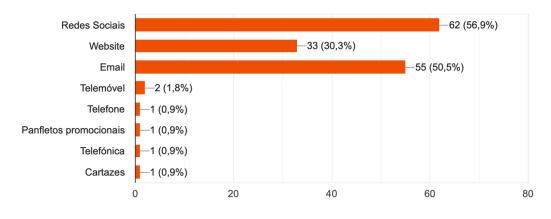


16. Classifique quanto à importância os fatores listados abaixo no momento de escolher um Veterinário para o seu animal (Considere a escala de 1 "nada importante" e de 5 "muito importante"):

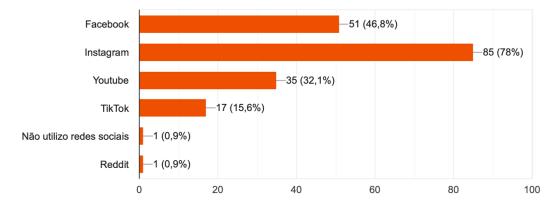


17. Que tipo de meio de comunicação prefere?

109 respostas

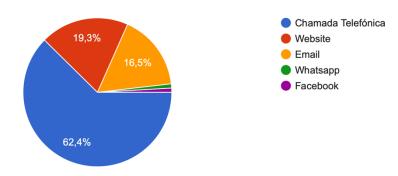


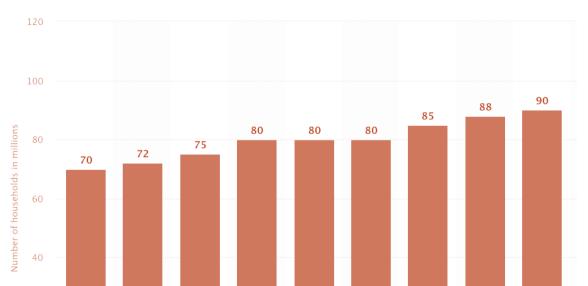
Quais as redes sociais que utiliza com maior frequência? 109 respostas



19. Ao efetuar marcações prefere que estas sejam de que forma?

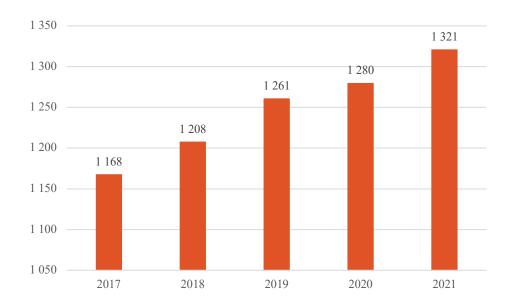
109 respostas



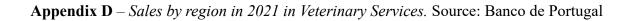


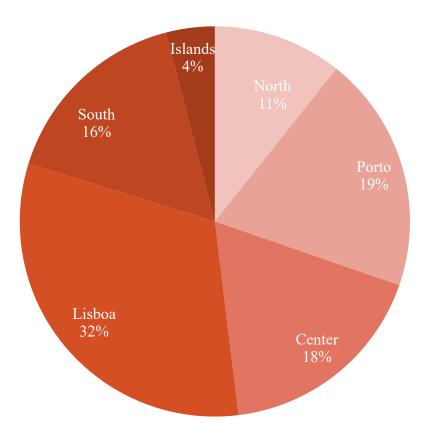
Appendix B – *Estimated number of households owning at least one pet in Europe from 2010 to 2021.* Source: Statista

Appendix C – Companies Number in Veterinary Services. Source: Banco de Portugal

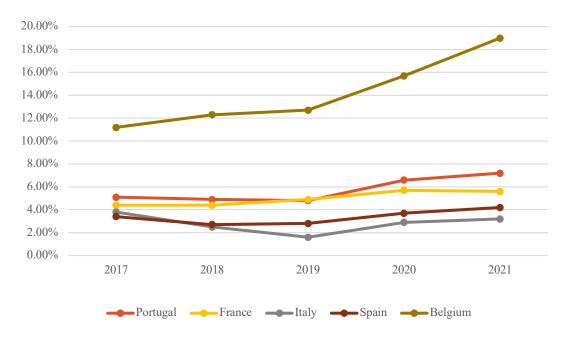


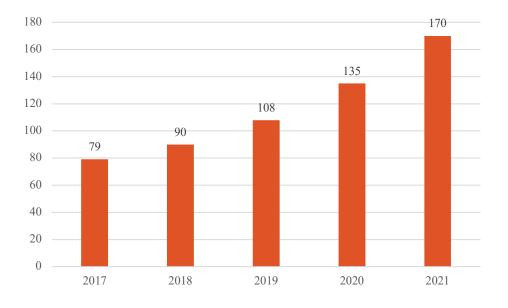
2010**





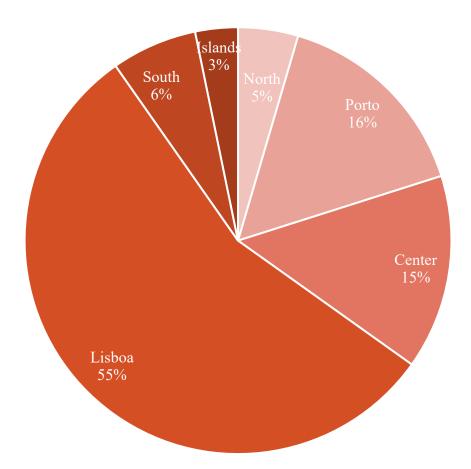
Appendix E – *Net margin as a percentage of income in Veterinary Services.* Source: Banco de Portugal



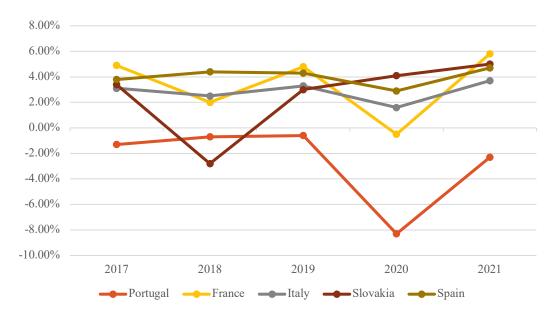


Appendix F – Companies Number in Other Services for pets. Source: Banco de Portugal

Appendix G – Sales by region in 2021 in Other Services for pets. Source: Banco de Portugal



Appendix H – *Net margin as a percentage of income in Other Services for pets.* Source: Banco de Portugal



Appendix I – XiraVet Prices. Source: By email

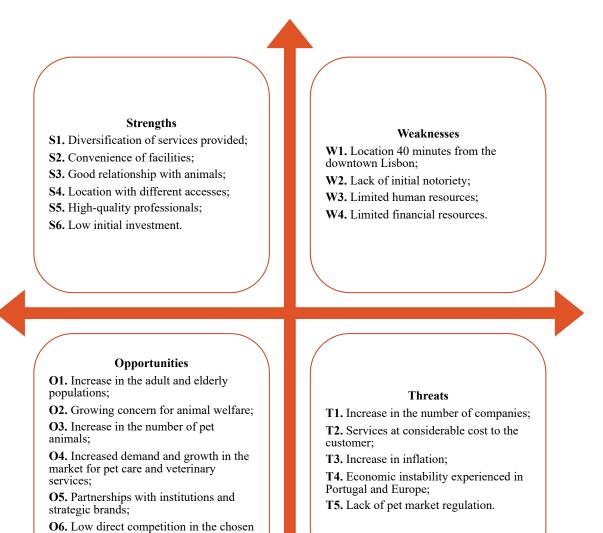


XiraVet Clínica Veterinária Re: Pedido de informações Para: Lara Ramalho 22 de setembro de 2023, 18:49

Os banhos e tosquias dependem dos pesos dos animais e do que pretende fazer ao pêlo dele em específico. Estes valores variam entre 20€ a 60€.

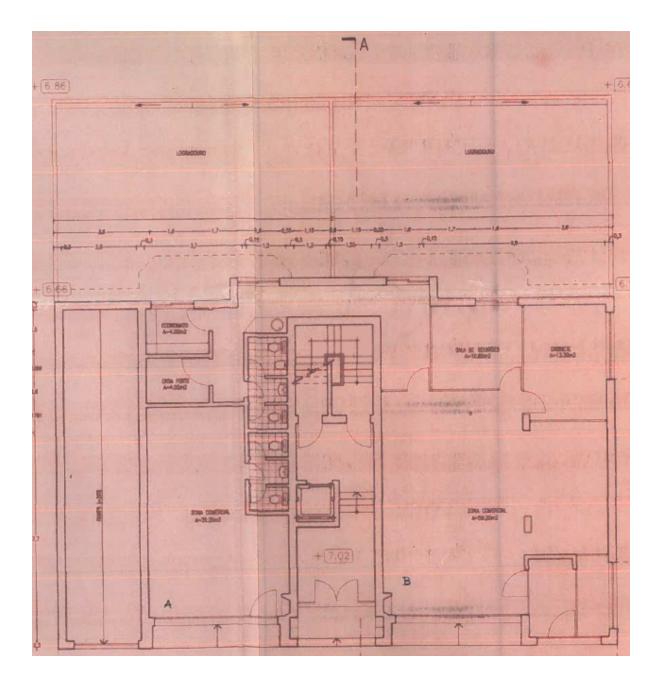
As vacinas dependem de qual pretende efetuar. Sendo as mais comuns a Raiva a 27€ e a Múltipla a 32€.

Appendix J – SWOT Analysis. Source: Self elaboration



area.

Appendix K – Property Plan. Source: Property Purchase Contract



Appendix L-Labor Costs. Source: Self elaboration

		0	1	2	3	4	5
		2023	2024	2025	2026	2027	2028
	Assumptions	Year of					
	P	investment					
Manager and Founder			1	1	1	1	1
Veterinary Nurse			1	1	1	1	1
Veterinary Assistant			1	1	1	2	2
Veterinarian			1	1	1	1	1
Total			4	4	4	5	5
Fixed Remuneration							
Average base salary							
Manager and Founder	1 153 €		13 836€	13 836€	13 836€	13 836€	13 836€
Veterinary Nurse	823 €		9 876€	9 876€	9 876€	9 876 €	9 876 €
Veterinary Assistant	769 €		9 228 €	9 228 €	9 228 €	18 456 €	18 456 €
Veterinarian	1 171 €		14 052 €	14 052 €	14 052 €	14 052 €	14 052 €
Total			46 992 €	46 992 €	46 992 €	56 220 €	56 220 €
Holiday and Christmas							
allowance							
Manager and Founder			2 306 €	2 306€	2 306 €	2 306 €	2 306 €
Veterinary Nurse			1 646 €	1 646€	1 646 €	1 646 €	1 646 €
Veterinary Assistant			1 538 €	1 538€	1 538 €	3 076 €	3 076 €
Veterinarian			2 342 €	2 342 €	2 342 €	2 342 €	2 342 €
Total			7 832 €	7 832 €	7 832 €	9 370 €	9 370 €
Meal allowance	6.50 €						
Manager and Founder			1 573 €	1 573 €	1 573 €	1 573 €	1 573 €
Veterinary Nurse			1 573 €	1 573 €	1 573 €	1 573 €	1 573 €
Veterinary Assistant			1 573 €	1 573 €	1 573 €	3 146 €	3 146 €
Veterinarian			1 573 €	1 573 €	1 573 €	1 573 €	1 573 €
Total			6 292 €	6 292 €	6 292 €	7 865 €	7 865 €
SS Charges	23.75%		13 021 €	13 021 €	13 021 €	15 578 €	15 578 €
Work Insurance Charges	1.25%		685€	685€	685€	820€	820€
Total Charges			13 706€	13 706€	13 706 €	16 398 €	16 398 €
Fixed Labor Costs			74 822 €	74 822 €	74 822 €	89 853 €	89 853 €

Appendix M – General Works Budget. Source: By email

Exs	SR:
Casta	nheira
CALHANDRIZ 10/07/2023	
ASSUNTO:Orçamento para arranjos de tetos e colocação de pavimento.	
Venho por este meio apresentar a minha melhor proposta para boa execução obra e por vós solicitados.	dos trabalhos vistos e
1º Formacimento o colococión do toto folco em oboro locado nos corredoros	s 720.0€
1º Fornecimento e colocação de teto falso em chapa lacada nos corredore	
2º Aplicação de massa autonivelante em pavimento.	940.0€
3° Fornecimento e colocação de pavimento vinilico colado e roda pé bran (NORA : ROYCE : HODOR)	nco 3.300.0€
4º Colar pedras exteriores	260.0€
5º Betumar pedras exteriores	150.0€
6º Arranjo e isolamentos do muro das traseiras	830.0€
VALOR TOTAL DESTES TRABALHOS.	6.200.0€+ IVA
PRAZO DE EXECUÇÃO: 25 Dias úteis.	
FORMA DE PAGAMENTO: 50% Na adjudicação +50% no final de todo	os os trabalhos.
Sem outro assunto de momento e ficando ao dispor para qualquer esclare ecessário, subscrevo-me atenciosamente.	cimento que julguem
ROBUSTO	A.

Telemóvel: 969 363 917

E-mail: jjpadeiro@gmail.com

Appendix N – Window Budget. Source: By email



ORÇAMENTO

Numero	Grafico	C	Conceito		Valor Un.	Valor total
		Janela 2F	Janela 2F			0
		The	Thermostop70			0
		INTERI	OR BRANCO			0
		EXTERIO	OR 7016 MATE			0
						0
						0
			Vidro			0
		+4 LAMINADO+ o	+4 LAMINADO+ caixa 16+ 6 guardian Su			
	· · · · · · · · · · · · · · · · · · ·					
V01		Alt.1610	Larg. 1515	1	645	645
			Total	1	Total	645
					VA	



1



PRAÇA FRANCISCO CANÇIO, 37 2600-535 ALHANDRA Tel. 00351965045389/ 00351934365268





Orçamento nº43/2021

Obra Castanheira

Quantidade	DESIGNAÇÃO	Valor	Valor Total
Unidade/metros		unitário	Mais iva
1portão mais 35 metros lineares de rede com 1,5m	Fabrico de um portão 1500altura por 1000 de largo em rede de arame. Mais 35 metros lineares de rede de arame Com 17 prumos em tubo quadrado 60x60 e mais 17 bases metálicas para fixar prumos ao muro, as bases são fixas com bucha química para evitar as infiltrações de água nas garagens. Fixação das redes por meio de braçadeira de topo com auto perfurantes.com montagem incluída.		2590.00€

Condições de pagamento 50% de adjudicação e o restante pagamento no fim.

Nib:PT50 0045 5060 4031 3709 98129

Validade do orçamento de 10 dias, após esta data, podemos ter que rectificar o valor da matéria-prima.

Atentamente

Adalberto Nogueira

Nota: os valores indicados estão sujeitos à taxa legal em vigor e podem ser alterados se o custo da matéria assimo exigir. Este documento não serve de Factura

Appendix P – Construction budget. Source: Self elaboration

General Works	6 200 €	
Room Division	151€	https://www.makro.pt/r
Dog Crates	470€	https://www.aosom.pt/i
Garden	2 590 €	
Window Opening	645€	
Total	10 055 €	

Appendix Q – Equipment. Source: Self elaboration

Tangible Assets	Quantity	Unit Price	Total (with VAT)	Total (excluding VAT)	Where?
Diagnostic Equipment	1	550€	550€	447€	https://www
Clothing	3	35€	105€	85€	https://www
Dog Muzzles	5	3€	17€	14€	https://www
Cups	40	3€	120€	97€	https://www
Fridge	1	380€	380€	309€	https://www
Microwave	1	55€	55€	45€	https://www
Towels	16	7€	112€	91 €	https://wecan
Veterinary Benches	1	630€	630€	512€	https://www
Grooming Benches	1	83 €	83 €	67€	https://www
Bathtub	1	1 237 €	1 237 €	1 006 €	https://www
Grooming Machine	1	182€	182€	148€	https://www
Grooming Equipment	1	40 €	40 €	32€	https://www
Dryer	1	95€	95€	77€	https://www
Construction	-	-	12 368 €	10 055 €	Budget
Computer	1	550€	550€	447€	https://www
Printer	1	43 €	43 €	35€	https://www
Toys	16	2€	27€	22€	https://www
Beds	20	15€	299€	243 €	https://www
Cabinets	3	70 €	210€	171€	https://www
Office Chairs	1	89€	89€	72€	https://www
Table and Chairs for the Pantry	1	123 €	123 €	100 €	https://www
Waiting Benches	2	65€	130€	106€	https://www
Total			17 445€	14 183 €	

Tangible Assets	Depreciation Rate	Туре	Code
Diagnostic Equipment	14.28%	Other materials	1595
Clothing	14.28%	Other materials	1595
Dog Muzzles	14.28%	Other materials	1595
Cups	14.28%	Hotel appliances and instruments	1680
Fridge	14.28%	Hotel appliances and instruments	1680
Microwave	14.28%	Hotel appliances and instruments	1680
Towels	50.00%	Hotel appliances and instruments	1680
Veterinary Benches	20.00%	Beauty devices and instruments	1700
Grooming Benches	20.00%	Beauty devices and instruments	1700
Bathtub	20.00%	Beauty devices and instruments	1700
Grooming Machine	20.00%	Beauty devices and instruments	1700
Grooming Equipment	20.00%	Beauty devices and instruments	1700
Dryer	20.00%	Beauty devices and instruments	1700
Construction	5.00%	Construction	2025
Computer	33.33%	Computers	2240
Printer	20.00%	Printer	2275
Toys	12.50%	Other comfort and decoration items	2405
Beds	12.50%	Other comfort and decoration items	2405
Cabinets	12.50%	Furniture	2430
Office Chairs	12.50%	Furniture	2430
Table and Chairs for the Pantry	12.50%	Furniture	2430
Waiting Benches	12.50%	Furniture	2430

Appendix R – Depreciation Rate. Source: Regulatory Decree 25/2009, of September 14

Appendix S – *Depreciations*. Source: Self elaboration

Depreciation table at current prices	Acquisition Value	Depreciation Rate	Year 1	Year 2	Year 3	Year 4	Year 5
Beauty devices and instruments	1 843 €	20.00%	369€	369€	369€	369€	369€
Hotel appliances and instruments	542€	14.28%	77€	77€	77€	77€	77€
Other comfort and decoration items	265€	12.50%	33€	33€	33€	33€	33€
Other materials	546€	14.28%	78€	78€	78 €	78€	78€
Furniture	449€	12.50%	56€	56€	56€	56€	56€
Computers	447€	33.33%	149€	149€	149€	- €	- €
Reinvestment in computers	494 €	33.33%	- €	- €	- €	165€	165€
Printer	35€	20.00%	7€	7€	7€	7€	7€
Construction	10 055 €	5.00%	503 €	503 €	503 €	503 €	503 €
Total			1 272 €	1 272 €	1 272 €	1 288 €	1 288 €
Gross Tangible Assets		14 183 €	14 183 €	14 183 €	14 677 €	14 677 €	14 677 €
Net Tangible Asset		14 183 €	12 911 €	11 639€	10 861 €	9 573 €	8 285 €



Crédito Avançar médio longo prazo

Data de Impressão: 27-10-2023 10:36

Número de Simulação: 25056699

fiscal 501 525 882.

ulada na C.R.C.

Capital Social: 3.000.000.000,00

João I, 28, Porto

sede na Praça D.

moo

ociedade Aberta

ercial Português, S.A.,

Resumo		
Apo	io investimento	
Prestação	797,77 EUR	mensal
Comissão de Gestão (anual) (Acresce Imposto do Selo à Taxa em vigor)	185,38 EUR	
Comissão de Processamento (mensal) (Acresce Imposto do Selo à Taxa em vigor)	3,00 EUR	

18.000,00 EUR	
Crédito Avançar médio longo prazo	
Apoio investimento	
18.000,00 EUR	
24 Meses	
6,000%	
7,546%	
	18.000,00 EUR Crédito Avançar médio longo prazo <u>Apoio investimento</u> 18.000,00 EUR 24 Meses 6,000%

Comissões Iniciais

Comissão	Organização
5011115540	Organização

0,00 EUR

Comissões Eventuais

Comissão de Recuperação de Valores em Dívida	150,00 EUR	(Acresce Imposto do Selo à Taxa em vigor)
Penalização por amortização (total ou parcial) antecipada	2,5% (Mín. 150,00 EUR)	

Custos Estimados

Imposto do Selo de Abertura Crédito

90,00 EUR

Notas Complementares

Notas Complementares

Esta simulação é válida para a data, valores e condições indicadas, não constituindo garantia da concessão de crédito.

27-10-2023 10:36 / b0c82f03-5b93-49c2-9f09-845bb1a9dbbd

Página 1 de 1

Appendix U – Financing Plan. Source: Millennium BCP Bank

Loan amount (in euros)	18 000
Processing Fee (month)	3
Management Fee (year)	185.38
ISAC	90.00
Loan maturity (in years)	2
IRC rate	21%
Nominal Annual interest Rate	6.00%
Monthly Rate	0.50%
Monthly Installment Value	797.77
Stamp Tax on Interest and Fees	4%

Loan Cash Flow Map opposite convention: inflows -; outflows +

	2023							2024					
Years	December	January	February	March	April	May	June	July	August	September	October	November	December
Financing	- 18 000												
ISAC	90.00												
Net Amount	- 17 910												
Loan Principal		18 000	17 292	16 581	15 866	15 148	14 426	13 700	12 971	12 238	11 501	10 761	10 017
Interests		90.00	86.46	82.90	79.33	75.74	72.13	68.50	64.85	61.19	57.51	53.80	50.08
Amortization of Capital		707.77	711.31	714.87	718.44	722.03	725.64	729.27	732.92	736.58	740.26	743.97	747.69
Processing Fee		3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Management Fee													185.38
Stamp Tax		3.72	3.58	3.44	3.29	3.15	3.01	2.86	2.71	2.57	2.42	2.27	9.54
Installment		797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77
Financial Expenses		97	93	89	86	82	78	74	71	67	63	59	248
Tax Savings	- 19	- 20	- 20	- 19	- 18	- 17	- 16	- 16	- 15	- 14	- 13	- 12	- 52
Outflow	- 17 839	874	778	779	780	781	781	782	783	784	785	785	746
Gross Outflow	- 17 820	894	798	798	798	798	798	798	798	798	798	798	798

		2025										
Years	January	February	March	April	May	June	July	August	September	October	November	December
Financing												
ISAC												
Net Amount												
Loan Principal	9 269	8 518	7 763	7 004	6 241	5 474	4 704	3 930	3 1 5 2	2 370	1 584	794
Interests	46.35	42.59	38.81	35.02	31.20	27.37	23.52	19.65	15.76	11.85	7.92	3.97
Amortization of Capital	751.42	755.18	758.96	762.75	766.57	770.40	774.25	778.12	782.01	785.92	789.85	793.80
Processing Fee	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Management Fee												185.38
Stamp Tax	1.97	1.82	1.67	1.52	1.37	1.21	1.06	0.91	0.75	0.59	0.44	7.69
Installment	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77	797.77
Financial Expenses	51	47	43	40	36	32	28	24	20	15	11	200
Tax Savings	- 11	- 10	- 9	- 8	- 7	- 7	- 6	- 5	- 4	- 3	- 2	- 42
Outflow	787	788	789	789	790	791	792	793	794	795	795	158
Gross Outflow	798	798	798	798	798	798	798	798	798	798	798	200

KD = Net All in Cost (after taxes)	0.21%			
RD = All In Cost Gross	0.38%			
NPVF	352 352	(
NPV	20 161			
APV	20 513			

Appendix V – Inflation Rates. Source: European Central Bank

	0	1	2	3	4	5	6			
HICP Inflation Forecasts										
Year	2023	2024	2025	2026	2027	2028	2029			
Annual Inflation Rates	0.00%	2.67%	2.17%	3.07%	2.20%	2.10%	2.10%			
Cumulative Price Indexes	1.0000	1.0267	1.0490	1.0812	1.1050	1.1282	1.1519			

Appendix W – Sales Forecast. Source: Self elaboration

Services Provided	2024	2025	2026	2027	2028
Grooming	924	1017	1119	1231	1355
Day Care	260	267	274	281	289
Hotel	308	316	324	333	342
Veterinary	616	678	746	821	904
Unit Price					
Unit Price					
Grooming	30 €	30€	30€	30€	30€
Day Care	55 €	55€	55€	55€	55€
Hotel	112€	112€	112€	112€	112€
Veterinary	50€	50€	50€	50€	50€

Revenue	(Services Provided * Uni	it Price)			
Grooming	27 720 €	30 510 €	33 570 €	36 930 €	40 650 €
Day Care	14 300 €	14 685 €	15 070 €	15 455 €	15 895 €
Hotel	34 496 €	35 392 €	36 288 €	37 296 €	38 304 €
Veterinary	30 800 €	33 900 €	37 300 €	41 050 €	45 200 €
Total	107 316 €	114 487 €	122 228 €	130 731 €	140 049 €

Appendix X - Cost of Products used. Source: Self elaboration

Products	Quantity Year 1	Quantity Year 2	Quantity Year 3	Quantity Year 4	Quantity Year 5	Unit Price	Where?
Feed (kg)	935	952	969	988	1007	2.28 €	https://www.zu.pt/produto/racao-
Perfume (unit)	13	14	15	16	17	3.82€	https://www.atida.com/pt-pt/men
Shampoo (lt)	16	18	19	21	22	7.94€	https://www.atida.com/pt-pt/men
Vaccines (unit)	312	343	377	415	456	20.00€	
Pills (unit)	312	343	377	415	456	10.00€	
Total	11 669 €	12 657 €	13 727 €	14 931 €	16 216 €		

Calculations					
Grooming	Number of dogs	lt			
	1		0.0125		
	80		1.00		
Hotel	Number of dogs	kg/day		kg/7 days	
	1		0.19		1.33
Day Care	Number of dogs	kg/day		kg/5 days	
	1		0.19		0.95
Dog Shelter	Number of dogs	kg/day		kg/365 day	ys
	1		0.19		69.35

Description	2024	2025	2026	2027	2028
Variables					
Products	11 669€	12 657 €	13 727 €	14 931 €	16 216 €
Water	194€	209€	225€	244 €	264€
Total Variables	11 862 €	12 866 €	13 953 €	15 174€	16 479 €
Fixed					
Energy	323 €	323€	323€	323€	323€
Cleaning	1 469 €	1 469 €	1 469 €	1 469 €	1 469 €
Security	410€	410€	410€	410€	410€
Telecommunications	165€	330€	330€	330€	330€
Invoicing Program	84 €	84€	84€	84€	84€
Accounting Services	1 320 €	1 320€	1 320 €	1 320€	1 320 €
Business Opening Services	930€	0€	0€	0€	0€
Condominium	72€	72€	72€	72€	72€
Marketing	281€	257€	257€	257€	257€
ATM Services	97€	63€	68€	73 €	79€
Multi-risk Insurance	68€	68€	68€	68€	68€
Total Fixed	5 218 €	4 394 €	4 399 €	4 405 €	4 411 €
Total without Taxes	17 080 €	17 260 €	18 352 €	19 579€	20 890 €
Contribution to Audiovisual (CAV)	34€	34€	34€	34€	34€
Value Added Tax (VAT)	2 249 €	2 130 €	2 205 €	2 290 €	2 379 €
CAV Value Added Tax (VAT)	2€	2€	2€	2€	2€
Total	19 366 €	19 426 €	20 593 €	21 906 €	23 306 €

Appendix Y – External Supplies. Source: Self elaboration

Appendix Z – Working Capital. Source: Self elaboration

		0	1	2	3	4	5	6
Description	Assumptions	2023	2024	2025	2026	2027	2028	2029
Current Assets								
Clients		-	-	-	-	-	-	
VAT to be recovered on investment		3 262 €	- €	- €	111€	- €	- €	
Total		3 262 €	- €	- €	111€	- €	- €	
Current Liabilities								
External Supplies	1.5		1 647 €	1 831 €	2 055 €	2 288 €	2 541 €	
VAT to be paid to the State			16 704 €	21 576€	23 539€	25 410 €	27 671 €	
State VAT payable	3		960€	1 241 €	1 353 €	1 461 €	1 591 €	
Social Security Firm	25%							
Firm SS per payroll period	1		1 173 €	1 198 €	1 235 €	1 510€	1 542 €	
Total State			2 133 €	2 439 €	2 588 €	2 971 €	3 133 €	
Total		- €	3 781 €	4 269 €	4 643 €	5 259 €	5 674 €	
Working Capital		3 262 €	- 3 781 €	- 4269€	- 4 532 €	- 5259€	- 5674€	
Investment in Working Capital		3 262 €	- 7043€	- 489€	- 263€	- 728€	- 414€	5 674 €

Appendix AA – CF Map. Source: Self elaboration

		0	1	2	3	4	5	6
Year	Assumptions	2023	2024	2025	2026	2027	2028	2029
Revenues			110 181	120 095	132 151	144 454	158 000	
Cost of Sales			0	0	0	0	0	
Gross Profit			110 181	120 095	132 151	144 454	158 000	
External Supplies Variable			12 179	13 496	15 086	16 767	18 592	
Contribution Margin			98 003	106 599	117 065	127 687	139 408	
External Supplies Fixed			5 357	4 609	4 756	4 867	4 976	
Labor Costs			76 820	78 487	80 896	99 284	101 369	
Total Fixed Expenses			82 177	83 096	85 653	104 151	106 345	
EBITDA			15 825	23 503	31 413	23 535	33 062	
Depreciations			1 272	1 272	1 272	1 288	1 288	
EBIT			14 553	22 230	30 141	22 248	31 775	
Income Taxes	21%		3 056	4 668	6 3 3 0	4 672	6 673	
NOPLAT			11 497	17 562	23 811	17 576	25 102	
Operational Cash Flow			12 769	18 834	25 083	18 863	26 390	
Working Capital		3 262	-3 781	-4 269	-4 532	-5 259	-5 674	
Investments in Working Capital		3 262	-7 043	-489	-263	-728	-414	-5 674
Exploration Cash Flow		-3 262	19 812	19 323	25 346	19 591	26 804	
Investments in CAPEX		14 183			494			
Divestment in CAPEX								8 285
Opportunity Cost			11 902	12 160	12 533	12 809	13 078	
Project Cash Flow		-17 445	7 910	7 163	12 318	6 782	13 726	2 612
Accumulated Cash Flow		-17 445	-9 534	-2 371	9 947	16 729	30 455	33 067
Discounted Cash Flow		-17 445	7 608	6 6 2 5	10 958	5 802	11 293	2 066
Accumulated Discounted Cash Flow		-17 445	-9 837	-3 212	7 746	13 548	24 841	26 908

Update of Cash Flows Deflated at the Real Rate										
Project Cash Flow	-17 445	7 910	7 163	12 318	6 782	13 726	2 612			
Deflator	1.0000	1.0267	1.0490	1.0812	1.1050	1.1282	1.1519			
Deflated Cash Flow (at Year 0 purchasing power)	-17 445	7 705	6 829	11 393	6 138	12 167	2 267			

Appendix AB – Income Statement. Source: Self elaboration

	2023	2024	2025	2026	2027	2028
Services Provided	0	110 181	120 095	132 151	144 454	158 000
Cost of Goods Sold	0	0	0	0	0	0
Gross Margin	0	110 181	120 095	132 151	144 454	158 000
External Supplies Variable	0	12 179	13 496	15 086	16 767	18 592
Contribution Margin	0	98 003	106 599	117 065	127 687	139 408
External Supplies Fixed	0	5 357	4 609	4 756	4 867	4 976
Labor Costs	0	76 820	78 487	80 896	99 284	101 369
Fixed Expenses	0	82 177	83 096	85 653	104 151	106 345
EBITDA	0	15 825	23 503	31 413	23 535	33 062
Depreciations	0	1 272	1 272	1 272	1 288	1 288
EBIT	0	14 553	22 230	30 141	22 248	31 775
Interest Income	0	46	163	223	402	463
Interest Expenses	90	1 106	546	0	0	0
EBT	-90	13 493	21 847	30 364	22 650	32 238
Income Taxes (21%)	0	2 834	4 588	6 3 7 6	4 756	6 770
NI	-90	10 659	17 259	23 987	17 893	25 468
Losses to be reported	90	0	0	0	0	0
Dividends (50%)	0	5 330	8 630	11 994	8 947	12 734
Retained Earnings	0	5 330	8 630	11 994	8 947	12 734

Years	2023	2024	2025	2026	2027	2028
Financial Needs						
Investments in CAPEX without VAT	14 183	0	0	494	0	0
Investments in Working Capital	3 262	0	0	0	0	0
Repayment of Medium Term Loans	0	8 731	9 269	0	0	0
Financial Charges for Medium-Term Loans	90	1 106	546	0	0	0
Taxes on Profits	0	0	2 834	4 588	6 3 7 6	4 756
Dividends	0	0	5 3 3 0	8 630	11 994	8 947
Total	17 535	9 837	17 979	13 712	18 370	13 703
Financial Resources						
EBITDA	0	15 825	23 503	31 413	23 535	33 062
Divestments in Working Capital	0	7 043	489	263	728	414
Capital Increases	5 000	0	0	0	0	0
Medium Term Loans	18 000	0	0	0	0	0
Recovery of Financial Investments	0	4 588	16 338	22 316	40 237	46 310
Income from Financial Investments	0	46	163	223	402	463
Total	23 000	27 502	40 493	54 214	64 902	80 250
Annual Balance	5 465	17 665	22 514	40 502	46 532	66 547
Initial Availability	0	877	2 204	2 402	2 668	2 889
Potential Availability	5 465	18 542	24 718	42 904	49 199	69 436
Desired Availability	877	2 204	2 402	2 668	2 889	3 160
Balance to be financed	0	0	0	0	0	0
Balance to Apply	4 588	16 338	22 316	40 237	46 310	66 276
Financial investments	4 588	16 338	22 316	40 237	46 310	66 276
Balance Loans	0	0	0	0	0	0
Income from Financial Investments	0	0	0	0	0	0
Final Availability	877	2 204	2 402	2 668	2 889	3 160

Appendix AC – Financial Plan. Source: Self elaboration

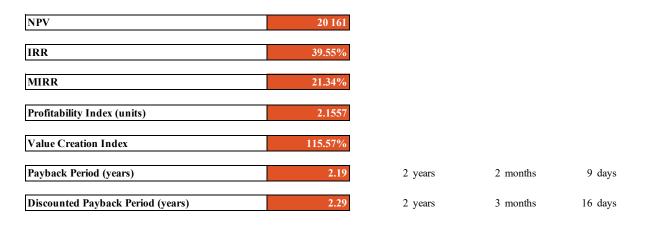
Appendix AD – Balance Sheet. Source: Self elaboration

	2023	2024	2025	2026	2027	2028
Current Assets	8 727	18 542	24 718	43 016	49 199	69 436
Accounts Receivable	3 262	0	0	111	0	0
Short Term Investments	4 588	16 338	22 316	40 237	46 310	66 276
Cash and Cash Equivalents	877	2 204	2 402	2 668	2 889	3 160
Non-Current Assets	14 183	12 911	11 639	10 861	9 573	8 285
Property and Equipment, net	14 183	12 911	11 639	10 861	9 573	8 285
Total Assets	22 910	31 453	36 357	53 876	58 772	77 721
Equity						
Common Stock	5 000	5 000	5 000	5 000	5 000	5 000
Retained Earnings	0	-90	5 240	13 869	25 863	34 810
Net Income	-90	10 659	17 259	23 987	17 893	25 468
Total Equity	4 910	15 569	27 499	42 857	48 757	65 278
Non-Current Liabilities	9 269	0	0	0	0	0
Medium/Long Term Debt	9 269	0	0	0	0	0
Current Liabilities	8 731	15 883	8 857	11 019	10 016	12 444
Short Term Debt	8 731	9 269	0	0	0	0
Accounts Payable	0	3 781	4 269	4 643	5 259	5 674
Income Taxes Payable	0	2 834	4 588	6 3 7 6	4 756	6 770
Total Liabilities	18 000	15 883	8 857	11 019	10 016	12 444
Total Equity & Liabilities	22 910	31 453	36 357	53 876	58 772	77 721
Error (Control) = Total Assets - Total Equity & Liabilities	0	0	0	0	0	0
Control of Non-Current Assets						
Balance Previous Year	-	14 183	12 911	11 639	10 861	9 573
CAPEX	14 183	0	0	494	0	0
Depreciations	-	0	1 272	1 272	1 272	1 288
Balance of the Year	-	14 183	11 639	10 861	9 589	8 285
Financial Needs	3 262	0	0	111	0	0
Financial Resources	0	3 781	4 269	4 643	5 259	5 674
Working Capital	3 262	-3 781	-4 269	-4 532	-5 259	-5 674
Working Capital Variation	3 262	-7 043	-489	-263	-728	-414

Appendix AE – Discount Rate. Source: Self elaboration

Risk-free Rate	2.89% 10y Bond Germany
Market Risk Premium	7.89% Damodaran_Market_Risk_Premium_by_Country_July2023
Levered Beta	1.28 Petco Health and Wellness Company, Inc. (WOOF)
Project Unlevered Beta	0.49
Project Risk Premium	3.87%
Nominal Rate	6.76%
Inflation Expectation	2.67%
Discount Rate	6.76%

Appendix AF – Evaluation Criteria. Source: Self elaboration



Appendix AG - Main Indicators. Source: Self elaboration

Profitab	ility Ratios				
	2024	2025	2026	2027	2028
Years	1	2	3	4	5
Contribution Margin	98 003	106 599	117 065	127 687	139 408
Contribution Margin (in % of Revenue)	89%	89%	89%	88%	88%
EBITDA Margin (in % of Revenue)	14.36%	19.57%	23.77%	16.29%	20.93%
ROS = Return On Sales (EBIT Margin in % of Revenue)	13.21%	18.51%	22.81%	15.40%	20.11%
Working Capital/Revenue	-3.43%	-3.56%	-3.43%	-3.64%	-3.59%
Net Fixed Capital/Revenue	8.29%	6.14%	4.79%	2.99%	1.65%
Invested Capital/Revenue	8.51%	6.44%	5.18%	3.30%	1.86%
ROIC = Return on Invested Capital	-4.60%	69.25%	163.63%	98.05%	404.17%
Effect of Interest = RAI/EBIT	0.9271	0.9828	1.0074	1.0181	1.0146
Invested Capital = WC + Net Fixed Assets	9 130	7 369	6 329	4 314	2 612
Equity Turnover = Invested Capital/Equity	0.5864	0.2680	0.1477	0.0885	0.0400
Effect of Foreign Capital	0.5437	0.2634	0.1488	0.0901	0.0406
Tax Effect = NI/EBT	0.7900	0.7900	0.7900	0.7900	0.7900
Return on Equity = ROE	68.46%	62.76%	55.97%	36.70%	39.01%
Operating Level of Leverage = Exposure to Economic Risk = MC/EBIT Financial Degree of Leverage = Measure of Financial Risk = EBIT/RAI Combined Degree of Leverage = MC/EBIT*EBIT/RAI = MC/RAI	6.7340 1.0786 7.2633	4.7952 1.0175 4.8792	0.9927	5.7393 0.9822 5.6374	0.9856
Financia	Indicators				
Financial Autonomy	49.50%	75.64%	79.55%	82.96%	83.99%
Times Interest Earned = EBIT/Interests	13.1535	40.6852	Not Available	Not Available	Not Available
Economic	c Indicators				
Business Growth Rate	Not Available	9.00%	10.04%	9.31%	9.38%
Net Profitability of Sales	9.67%	14.37%	18.15%	12.39%	16.12%
Operational Profitability of Sales	13.21%	18.51%	22.81%	15.40%	20.11%
Economic-Fin	ancial Indicators				
Asset Turnover	3.50	3.30	2.45	2.46	2.03
Net ROA	33.89%	47.47%	44.52%	30.45%	32.77%
Gross ROA	46.27%	61.15%	55.94%	37.85%	40.88%
Debt-to-equity	1.02	0.32	0.26	0.21	0.19
Lionidit	y Indicator				
General Liquidity = Current Assets/Current Liabilities	119.09%	89.89%	100.37%	100.91%	106.37%

Appendix AH – Sensitivity Analysis. Source: Self elaboration

20 161 0.90 0.95 0.90 6 922 -5 507			
	Labor Costs		
0.00 6.022 5.502		1.05	1.10
		-31 680	-46 484
0.95 25 800 13 371 Revenues 1.00 45 673 33 244		-12 795 7 078	-26 532 -6 660
1.05 65 545 53 116		26 950	13 213
1.10 86 411 73 982		47 816	34 079
Sensitivity Analysis of Revenues and CAPEX			
	CAPEX		
20 161 11 488 12 765		15 601	17 161
0.90 -17 476 -18 004		-19 177	-19 822
0.95 1 403 875		-298	-943
Revenues 1.00 21 275 20 747		19 574	18 929
1.05 41 147 40 620 1.10 62 013 61 486		39 447 60 313	38 80 59 66
Sensitivity Analysis of Variable and Fixed External Supplies			
		P	
20 161 0.90 0.95	ariable External Supp 1.00	1.05	1.10
0.90 26 043 23 888		19 350	16 968
0.95 25 332 23 177		18 640	16 258
Fixed External Supplies 1.00 24 585 22 425		17 892	15 510
1.05 23 837 21 682 1.10 23 052 20 896		17 144 16 359	14 762 13 977
Sensitivity Analysis of Revenues and Fixed External Supplies			
20 161 0.90 0.95	Fixed External Suppli 1.00	es 1.05	1.10
0.90 -17 132 -17 843		-19 338	-20 124
0.95 1 746 1 036		-460	-1 24
Revenues 1.00 21 619 20 908		19 413	18 628
1.05 41 491 40 781 1.10 62 357 61 647		39 285 60 151	38 500 59 360
Sensitivity Analysis of Revenues and Variable External Supplies			
	ariable External Supp	lies	
Vi			
20 161 0.90 0.95		1.05	
20 161 0.90 0.95 0.90 -14 167 -16 322	-18 591	-20 859	-23 242
20 161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557	-18 591 288	-20 859 -1 981	-23 24 -4 36
20 161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2.55 Revenues 1.00 24 585 22 429	-18 591 288 20 161	-20 859 -1 981 17 892	-23 24 -4 36 15 51
20 161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557	-18 591 288 20 161 40 033	-20 859 -1 981	-23 24 -4 36 15 51 35 38
20161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557 100 24 585 22 425 1.05 44 457 42 302 1.10 65 323 63 168	-18 591 288 20 161 40 033	-20 859 -1 981 17 892 37 764	-23 242 -4 363 15 510 35 382
20161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557 Revenues 1.00 24 585 22 425 1.05 44 457 42 302	-18 591 288 20 161 40 033 60 899	-20 859 -1 981 17 892 37 764	-23 242 -4 363 15 510 35 382
20161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557 1.00 24 585 22 425 1.05 44 457 42 302 1.10 65 323 63 168	-18 591 288 20 161 40 033 60 899 Risk-free Rate	-20 859 -1 981 17 892 37 764	-23 242 -4 363 15 511 35 382 56 248
20161 0.90 0.95 0.90 -14167 -16322 0.95 4712 2557 Revenues 1.00 24585 22425 1.05 44457 42302 1.10 65323 63168	-18 591 288 20 161 40 033 60 899 Risk-free Rate 2.89%	-20 859 -1 981 17 892 37 764 58 630	1.10 -23 242 -4 363 15 510 35 382 56 248 56 248 3.49% -18 606
20161 0.90 0.95 0.90 -14167 -16322 0.95 4712 2557 Revenues 100 24585 22425 1.05 44457 42302 1.10 65323 63168 Sensitivity Analysis of Revenues and Risk-free Rate 20161 2.34% 2.60% 0.90 -18575 -18583 0.95 598 450	-18 591 288 20 161 40 033 60 899 Risk-free Rate 2.89% -18 591 288	-20 859 -1 981 17 892 37 764 58 630 3.17% -18 598 128	-23 242 -4 363 15 510 35 382 56 248 -3.49% -18 606 -45
20 161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557 Revenues 1.00 24 585 22 425 1.05 44 457 42 302 1.10 65 323 63 168 Sensitivity Analysis of Revenues and Risk-free Rate 20 161 2.34% 2.60% 0.90 -18 575 -18 583 0.955 598 455 Revenues 1.00 20 781 20 485 20 485 20 485	-18 591 288 20 161 40 033 60 899 Risk-free Rate 2.89% -18 591 288 20 161	-20 859 -1 981 17 892 37 764 58 630 3.17% -18 598 128 19 840	-23 242 -4 363 15 510 33 382 56 248 -18 60 -480 -490 -490 -490 -490 -490 -490 -490 -49
20 161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557 0.95 4 712 2 257 1.00 24 585 22 425 1.05 44 457 42 302 1.10 65 323 63 168 Sensitivity Analysis of Revenues and Risk-free Rate 20 161 2.34% 2.60% 0.90 -18 575 -18 583 0.95 598 450	-18 591 288 20 161 40 033 60 899 Risk-free Rate 2.89% -18 591 288 20 161 40 033	-20 859 -1 981 17 892 37 764 58 630 3.17% -18 598 128	-23 24 -4 36 15 51 35 38 56 24
20 161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557 1.00 24 585 22 425 1.05 44 457 42 302 1.10 65 323 63 168 Sensitivity Analysis of Revenues and Risk-free Rate 20 161 2.34% 2.60% 0.90 -18 575 -18 883 0.95 598 455 1.00 20 781 20 485 1.00 20 781 20 485 1.00 20 781 20 485 1.00 20 781 20 485 1.00 20 55 61 556 1.10 62 155 61 556	-18 591 288 20 161 40 033 60 899 Risk-free Rate 2.89% -18 591 288 20 161 0 40 033 60 899 Opportunity Cost	-20 859 -1 981 17 892 37 764 58 630 3.17% -18 598 128 19 840 39 553 60 250	-23 24 -4 36 15 51 35 38 56 24 3,49% -18 60 -4 39 03 59 54
20 161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2.55 1.00 24 585 22 425 1.05 44 457 42 302 1.10 65 323 63 168 Sensitivity Analysis of Revenues and Risk-free Rate 20 161 2.34% 2.60% 0.90 -18 575 -18 583 0.95 598 455 0.95 598 455 1.05 40 963 40 52 1.00 20 781 20 485 1.05 40 963 40 52 1.10 62 155 61 556 61 556 56 56 56 20 161 9 640.22 10 711.36	-18 591 288 20 161 40 033 60 899 Risk-free Rate 2.89% -18 591 288 20 161 40 033 60 899 0000000000000000000000000000000000	-20 859 -1 981 17 892 37 764 58 630 3.17% -18 598 128 19 840 39 553 60 250	-23 242 -4 363 15 510 33 382 56 248
20 161 0.90 0.95 0.90 -14 167 -16 322 0.95 4 712 2 557 100 24 585 22 425 1.05 44 457 42 302 1.10 65 323 63 168 Sensitivity Analysis of Revenues and Risk-free Rate 20 161 2.34% 2.60% 0.95 598 450 -18 583 0.95 598 450 -18 583 0.95 598 450 -18 583 0.95 598 450 -18 583 0.95 598 450 -18 583 0.95 598 450 -18 583 0.95 598 450 -18 583 0.95 598 40 520 -10 55 1.00 20 781 20 485 -1.05 1.00 62 155 61 556 -1.10 Sensitivity Analysis of Revenues and Opportunity Cost 20 161 9 640.22 10 711.36	-18 591 288 20 161 40 033 60 899 Risk-free Rate 2.89% -18 591 288 20 161 40 033 60 899 Opportunity Cost 11 902 -18 591	-20 859 -1 981 17 892 37 764 58 630 3.17% -18 598 128 19 840 39 553 60 250 13 091.66 -19 676	-23 242 -4 363 15 511 35 382 56 248
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	Sensitivity Analysis of Revenues	and Average Price Ind	exes Multiplier			
			Average Pr	ice Indexes Multip	olier	
	20 161	0.90	0.95	1.00	1.05	1.10
	0.90	-95 386	-57 364	-18 591	22 074	70 941
	0.95	-77 743	-39 485	288	43 983	96 488
Revenues	1.00	-60 658	-20 906	20 161	67 045	123 379
	1.05	-44 562	-3 747	40 033	90 107	150 271
	1.10	-27 663	14 189	60 899	114 323	178 507
	Sensitivity Analysis of	Revenues and Discount	t Rate			

			Discount Rate							
	20 161	5.47%	6.08%	6.76%	7.43%	8.17%				
	0.90	-18 552	-18 571	-18 591	-18 608	-18 626				
	0.95	1 027	672	288	-83	-477				
Revenues	1.00	21 638	20 927	20 161	19 418	18 626				
	1.05	42 248	41 183	40 033	38 918	37 730				
	1.10	63 889	62 451	60 899	59 393	57 788				

Appendix AI - Break-even Point. Source: Self elaboration

Goal Seek Values	Break-even	Original Value	(Break-even)/Original	Margin of Error	Safety Margin
CAPEX	62 938	14 183	443.76%	-343.76%	-77.47%
Revenues Multiplier	0.9493	1	94.93%	5.07%	5.34%
Variable External Supplies Multiplier	1.4443	1	144.43%	-44.43%	-30.76%
Fixed External Supplies Multiplier	2.3480	1	234.80%	-134.80%	-57.41%
Labor Costs Multiplier	1.0770	1	107.70%	-7.70%	-7.15%
Risk-free Rate	35.68%	2.89%	1236.69%	-1136.69%	-91.91%
Opportunity Cost	16 477	11 592	142.14%	-42.14%	-29.65%
Price Indexes Multiplier	0.9763	1	97.63%	2.37%	2.43%
Discount Rate	39.55%	6.76%	585.45%	-485.45%	-82.92%

		0	1	2	3	4	5	6
Year As	ssumptions	2023	2024	2025	2026	2027	2028	2029
Revenues			106 898	116 516	128 213	140 149	153 291	
Cost of Sales			0	0	0	0	0	
Gross Profit			106 898	116 516	128 213	140 149	153 291	
External Supplies Variable			12 298	13 628	15 234	16 931	18 774	
Contribution Margin			94 600	102 887	112 979	123 218	134 517	
External Supplies Fixed			5 304	4 563	4 709	4 818	4 927	
Labor Costs			77 573	79 256	81 689	100 257	102 363	
Total Fixed Expenses			82 876	83 819	86 398	105 076	107 289	
EBITDA			11 723	19 068	26 581	18 142	27 228	
Depreciations			1 272	1 272	1 272	1 288	1 288	
EBIT			10 451	17 796	25 309	16 854	25 940	
Income Taxes	21%		2 195	3 737	5 315	3 539	5 448	
NOPLAT			8 257	14 059	19 994	13 315	20 493	
Operational Cash Flow			9 529	15 331	21 266	14 603	21 781	
Working Capital		3 262	-3 781	-4 269	-4 532	-5 259	-5 674	
Investments in Working Capital		3 262	-7 043	-489	-263	-728	-414	-5 674
Exploration Cash Flow		-3 262	16 571	15 820	21 529	15 330	22 195	
Investments in CAPEX		14 183			494			
Divestment in CAPEX								8 285
Opportunity Cost			12 372	12 640	13 028	13 315	13 594	
Project Cash Flow		-17 445	4 200	3 180	8 007	2 015	8 601	2 612
Accumulated Cash Flow		-17 445	-13 245	-10 065	-2 059	-43	8 557	11 169
Discounted Cash Flow		-17 445	4 039	2 941	7 122	1 724	7 076	2 066
Accumulated Discounted Cash Flow		-17 445	-13 406	-10 465	-3 342	-1 618	5 458	7 524

Update of Cash Flows Deflated at the Real Rate							
Project Cash Flow	-17 445	4 200	3 180	8 007	2 015	8 601	2 612
Deflator	1.0000	1.0267	1.0490	1.0812	1.1050	1.1282	1.1519
Deflated Cash Flow (at Year 0 purchasing power)	-17 445	4 090	3 031	7 406	1 824	7 624	2 267

NPV	3 567
IRR	13.05%
MIRR	10.12%
Profitability Index (units)	1.2045
Value Creation Index	20.45%
Payback Period (years)	4.01
Discounted Payback Period (years)	4.23

4 years	0 months	2 days
4 years	2 months	22 days

Appendix AK – Optimistic Scenario	. Source: Self elaboration
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		0	1	2	3	4	5	6
Year	Assumptions	2023	2024	2025	2026	2027	2028	2029
Revenues			113 509	123 721	136 142	148 816	162 771	
Cost of Sales			0	0	0	0	0	
Gross Profit			113 509	123 721	136 142	148 816	162 771	
External Supplies Variable			12 055	13 358	14 932	16 596	18 402	
Contribution Margin			101 454	110 363	121 210	132 220	144 369	
External Supplies Fixed			5 411	4 655	4 804	4 916	5 026	
Labor Costs			76 036	77 686	80 071	98 272	100 335	
Total Fixed Expenses			81 447	82 342	84 875	103 187	105 361	
EBITDA			20 007	28 022	36 335	29 033	39 008	
Depreciations			1 272	1 272	1 272	1 288	1 288	
EBIT			18 735	26 749	35 063	27 745	37 720	
Income Taxes	21%		3 934	5 617	7 363	5 826	7 921	
NOPLAT			14 801	21 132	27 700	21 919	29 799	
Operational Cash Flow			16 073	22 404	28 972	23 206	31 087	
Working Capital		3 262	-3 781	-4 269	-4 532	-5 259	-5 674	
Investments in Working Capital		3 262	-7 043	-489	-263	-728	-414	-5 674
Exploration Cash Flow		-3 262	23 115	22 893	29 234	23 934	31 501	
Investments in CAPEX		14 183			494			
Divestment in CAPEX								8 285
Opportunity Cost			11 419	11 667	12 025	12 290	12 548	
Project Cash Flow		-17 445	11 696	11 226	16 715	11 644	18 953	2 612
Accumulated Cash Flow		-17 445	-5 749	5 477	22 191	33 835	52 788	55 400
Discounted Cash Flow		-17 445	11 248	10 383	14 868	9 961	15 594	2 066
Accumulated Discounted Cash Flow		-17 445	-6 196	4 186	19 055	29 016	44 610	46 676

Update of Cash Flows Deflated at the Real Rate							
Project Cash Flow	-17 445	11 696	11 226	16 715	11 644	18 953	2 612
Deflator	1.0000	1.0267	1.0490	1.0812	1.1050	1.1282	1.1519
Deflated Cash Flow (at Year 0 purchasing power)	-17 445	11 392	10 701	15 460	10 538	16 800	2 267

NPV	37 083
IRR	63.89%
MIRR	29.09%
Profitability Index (units)	3.1258
Value Creation Index	212.58%
Payback Period (years)	1.51
Discounted Payback Period (years)	1.60

1 years	6 months	4 days
1 years	7 months	5 days