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NATURNEEM:

A Sustainable Marketing Plan

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## Abstract

This work project consists of a Marketing Plan done for Conceição Martins's company Naturchemis's product Naturneem. It is part of a partnership with FLAD, within the scope of their program Connect to Success.

A study of the pet care market was conducted, globally and locally in Portugal, taking into account interviews with veterinarians, pet care product consumers, and a survey answered by pet owners, who live in the Lisbon Metropolitan Area. After analysing the trends of this market, and the properties of Naturneem with a SWOT analysis, a Marketing Plan was formed and divided for B2B and B2C purposes.

The main strategy followed was to educate pet owners and pet car specialists about neem oil, the product Naturneem is based on.

This project offers Optimistic and Pessimistic Scenarios derived from the implementation of the proposed Marketing Plan.

**Keywords:** Biologic antiparasite, pets, marketing plan, sustainable businesses

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## Table of Contents

Abstract.....	1
Acknowledgements .....	1
Executive Summary .....	3
Business Introduction: Naturchemis .....	4
Naturneem .....	5
External Analysis .....	6
Pet Care – A Global Overview.....	6
The Portuguese Market.....	7
Environmental Analysis (PESTLE).....	8
Porter’s Five Forces .....	11
Competitors .....	14
Internal Analysis.....	16
SWOT Analysis.....	16
Naturneem’s Advantages .....	18
Strategies .....	19
B2C.....	20
B2B.....	27
Communication Plan - Jobs To Be Done .....	32
Financial Analysis .....	33
B2C Scenarios .....	33
B2B Scenarios .....	36
Key Performance Indicators .....	38
B2C.....	38
B2B.....	39
NPV Analysis.....	40
Final Remarks .....	42
Bibliography .....	44
Appendix .....	51

## Executive Summary

This report is a Marketing Plan proposed for Naturchemis's product Naturneem, which plays a small part in the company's financial data. Having a focus on the agricultural care market, the company only sold 44 bottles of Naturneem online in 2017.

The purpose of this project is to increase Naturneem's sales, in order to give Naturchemis the opportunity to have a bigger presence in the pet care market. After studying the global and Portuguese pet care markets, it was found there is a big demand for non-chemically induced pet treatments, which Naturneem answers. The methodology of finding these results were made through three interviews done to veterinary doctors, and a survey answered by 204 pet owners, who live in the Lisbon Metropolitan Area. The sample of the conducted survey is not representative of the Portuguese pet owner population, nonetheless due to the lack of information of this market, the results gathered had to be considered.

This Marketing Plan focuses on a digital campaign for B2C, and a distribution strategy for B2B. An Optimistic and Pessimistic financial scenario were considered for both strategies, in order to choose the most profitable marketing approach. There were also KPIs used in order to make a final decision, where different KPIs were adapted to each strategy.

Due to a Non-Disclosure Agreement some of the original names of certain companies or clients will not be revealed.

### Glossary:

B2B - Business To Business	SEO - Search Engine Optimization	NPV – Net Present Value
B2C - Business to Client	SEM - Search Engine Marketing	ROI – Return On Investment
BR - Bounce Rate	CPV - Cost Per View/Visitor	GDP – Gross Domestic Product
CLV - Customer Lifetime Value	CAC - Customer Acquisition Cost	
CPC - Cost Per Click	CTR - Click Through Rate	
KPIs - Key Performance Indicators	FCF – Future Cash Flows	

## Business Introduction: Naturchemis

Naturchemis, a company that produces biocides for both agricultural and pet animals, was founded by Conceição Martins, a chemist, in 2013. Before opening her own business, Conceição worked in the cork company Amorim but left in 2011, after the relocation of the company's factory.

By this time, Conceição realized it was time to focus on her personal and future career goals, and decided to invest on a self-sufficient and sustainable business. With an added concern for the environment Conceição decided to choose the agricultural business, concentrating on biological friendly substitutes for chemicals, which are used to fight parasites that live off various types of crops. These same chemicals can harm both the produce being grown, and the land that is being cultivated.

Naturchemis started to sell their core products throughout the year of 2014. These were: potassium soap, produced locally; neem oil, imported from India and developed in Portugal; and repellent for pets made with neem oil as well. The company started to sell potassium soap, and followed with their neem oil products after finding the right recipe for them. In September, the product started to sell after receiving a license from Sativa – a Portuguese Certification and Control Company.

Neem oil is the basis of many of Naturchemis's products. Its main advantage is to answer the biological and environmental friendly demands for chemical goods, used on a daily basis. Focusing on its agriculture knowledge, Naturchemis saw the opportunity to invest on other neem-oil-based products for the pet care market.

Facing challenges of distribution and communication, Naturchemis enrolled in FLAD's Connect to Success's mentoring program, from which originated a communication plan developed by Porter Novelli. Unfortunately, Conceição never led this plan into action, and decided to enrol once again into the program, to see whether the pets market has any

growth opportunity or not. This work project follows that purpose, namely to test the company's challenges and opportunities in the pet care market.

### Naturneem

Naturchemis's **parasite repellent for pets** is called Naturneem. The basis of its composition is **neem oil**, which is a biological product imported from India.

Neem oil is a versatile product, safe to use for agriculture, animal care and human care. Its characteristics show it is a good **chemical-free alternative** for fighting pesticides (fleas, bugs, worms, caterpillars, locusts, beetles and even funguses) in fields. It is used for medicine, but mostly for skin care (acne treatment), agriculture and pet care. The product works by repelling external parasites, such as insects, parasites and fleas. Its composition is 5% extract of neem oil, while the rest of the product is filled with excipients, that is, diluent.

Conceição decided to enter the pet care market in Portugal, because of the potential of neem oil, and its ability to be efficient in many other markets. With Naturchemis being focused on agriculture, the available leap was to go into the pet care market.

This product is sold in spray form, and as such it is used externally. The owner must spray the product onto the fur of the animal, and then massage it throughout its whole body, in order for the product to touch every piece of the pet's hair.

Each bottle has 250 ml, and each 10 ml equals to 1 kg of a pet. This same spray costs 11,93€ and it should be used, at least on a monthly basis. As any product, Naturneem has its warnings, and it mustn't be used by children, nor have any contact with the digestive system of a human being. This is one of the main reasons why neem oil cannot be used entirely by itself. It must always be diluted in order to be safely used (chapter II of the Appendix).

The production process of diluting the raw material is done locally, at the Naturchemis headquarters near Azeitão, in Portugal.

## External Analysis

### Pet Care – A Global Overview

Before focusing on the Portuguese market, a look into pet care at a global level must be done to better understand the size, and potential of the market. As well as which trends are currently shaping it.

Starting with the total market size, in 2017, pet care was worth 109.8 billion USD. The industry is growing, mainly due to premium pet food. Pet food counts for 80.2 million USD (around 73% of the total market), whereas other pet products make up for only 29.6 million USD (Euromonitor, 2017). As of now, North America is the region with the highest number of sales but future growth leans on emerging markets. These indicators demonstrate this is a market with real potential. Furthermore, it is equally fundamental to comprehend today's global trends, and know how they affect consumers' behaviours.

Nowadays, the world is evolving and changing at a very fast pace. The **generation gap** between generations Y, Z and Baby Boomers becomes more visible each day, with the latter being quickly outnumbered. Meaning their preferences are being substituted by new ideas and lifestyles. **Premiumization** has become mainstream, and is leading the way with consumers seeking more expensive premium products. Dog and cat premium food has been in the centre of companies' strategies over the past few years. This tendency has been rising in mass grocery retailers.

Currently, technology and the internet are key factors to any business. Consumers want the latest gadgets to interact, and to have real-time feedback on their pets. The internet has allowed information to be easily accessible, and for **consumers to be constantly connected**. This strong online presence leads to a **higher power of e-commerce**. Here the possibility of comparing prices, and user reviews is essential for the consumer's final purchasing decision.

However, the biggest changes over the last years are related to people's lifestyles. The idea of a **healthy and ethical way of living** has increased drastically. Owners have become more **concerned with their own health, wellness and well-being and have transferred that to their pets**. This is observed mainly when it comes to weight management. Yet, because not all consumers are aware of it, companies have been making various efforts in order to educate them.

Finally, regarding the ethics of this business, consumption is becoming a responsible action, increasing the demand **for green, clean and certified products**. People are going for more organic, natural and sustainable options (with the authorized certification) while seeking a fair price-quality relation. In order to move forward, the industry is following this direction, with manufacturers realizing that clarity and transparency are crucial to not lose customers.

### The Portuguese Market

After analysing major global tendencies, more research was done, with **interviews to vets**, in order to understand the current situation of the Portuguese market. With three interviews it was possible to gather accurate knowledge about the industry, and possible consumers in Portugal. Each interview was based on a guide with 13 questions, and all the interviews were done in person (chapter III of the Appendix).

The need to understand Portuguese consumers' preferences and behaviour also emerged and, consequently, a **survey with 23 questions was developed**, aiming to explore the demographics, lifestyle and interests of the sample. (chapter IV of the Appendix). It had a successful response rate, with 204 pet owners answering, between the ages of 18 and 67 years old. All the inquired live in Lisbon's Metropolitan Area. This survey is not representative of the Portuguese consumers, but it was needed due to the lack of information of the Portuguese landscape regarding this industry.



## Environmental Analysis (PESTLE)

**Political:** Portugal has been in the right path to be considered a pet friendly country. Since 2016, veterinary expenses have become tax-deductible (Portuguese League of Animals' Rights, 2017). According to the Article 78º, line f) of the Portuguese tax code (IRS), consumers can claim back 15% of VAT up to an annual limit of 250€. These expenses include veterinary care and activities, with or without hospitalization, diagnosis activities and transportation of sick pets.

Nonetheless the Portuguese government does not force this legislation. Even though there are animal welfare laws, when citizens violate them, the majority will only receive a fine. The country has a big problem of abandoned pets, which shows to be more intense during the summer and other long holidays. The sentence for someone who abandons their pets can go up to 6 months of jail, but few are the ones who are brought up to court (Euromonitor 2017). In 2017, legislation regarding violence against animals was still weak in terms of punishing the aggressor.

**Economic:** Portugal was severely affected by the international and national economic crisis. In 2011, the country was forced to ask for external financial help, through the International Monetary Fund. The program lasted until 2014. During that period, GDP presented negative growth rates for three consecutive years. 2014 was the turning point, with the Portuguese economy recovering. The real growth in 2016 was of 1,54%. Private consumption (121.334,7 thousand € in 2016) and the minimum average wage (557€ per month in 2017) also increased in the last three years (Pordata 2017).

Looking into pet care, it is possible to see the industry has grown bigger over time. Total sales rose from 1 100,4 million € in 2012 to 1 289 million € in 2017 (Euromonitor International, 2017).

**Social:** In the last decades, urbanization has been increasing in Portugal, mainly due to young professionals, who are starting their careers while working long work hours. These group of people are seeking city centres, to be closer to work. Simultaneously family has since become a secondary priority. Parenthood is postponed and couples have less children, when comparing to previous generations. In the last 50 years, the average dimension of Portuguese families decreased significantly, going from 3,8 members per family in 1960 to 2,6 members in 2011 (date of the last census made in Portugal). Additionally, individuals, and particularly women started to gain more autonomy, and single and two-person households increased. The 2011 census also showed there were 24% of couples without children, 20% single parent families, and 20% of the population was living alone (INE, November 2013).

All in all, not only are younger people seeking city centres to live in, but also looking for smaller houses because of the small number of people each family has. These factors combined had a huge impact in pet ownership, and the number of smaller pets increased, with preference for dogs and cats. In 2016, there were 2 050 thousand pet dogs (Graph 2) and 1 370 thousand pet cats in Portugal (Graph 3). Also, in 2016, 35% of households owned at least one dog, while 30% of households owned at least one cat (Graph 4). With pets spending more time inside the house, the humanization trend spread rapidly. Pets are now seen as family members, and owners have become more aware of their health and welfare, being willing to spend greater amounts of money on them. This has started with pet food, but has promptly escalated to non-essential products, such as grooming products and toys (Euromonitor, 2017).

Finally, the ageing population has made its impact on the industry as well. There has been a trend rising of elder people who adopt pets for companionship, after their children leave home, and/or if their partner has passed away (Euromonitor 2017). This can be important

for the industry, since projections state the elderly Portuguese population will go from 2,1 million in 2015 to 2,8 million in 2080, while the younger population will decrease (INE, 2017).

**Technological:** In 2016 and 2017, Lisbon was the host of Web Summit and it will hold this event again in the following year. This event has given Portugal the opportunity of being considered one of Europe's newest technologic hubs (Euronews, 2015).

Internet and e-commerce became essential in the last few years. Access to Internet at home is a reality for 74% of Portuguese families, plus broadband and mobile data have experienced an exponential growth. In 2016, 72% of users accessed the Internet in mobile form. In 2012, that value was of 35%. Consequently, when asked which devices were used to access the Internet, 78% of users answered smartphone and 73% laptop. Additionally, 23% of people shopped online, a trend more frequent among people who own a university degree (53%), and whose age ranges from 25 to 34 years old (44%) (INE, 2016).

With technology being present in day to day life, e-commerce and fintech are two industries which have shown big development and investment (MIT Technology Review, 2016). These two industries are based on positive consumer behaviour, where every purchase process must be consumer friendly and answer to any potential clients' needs, even before the client himself/herself is aware of them. Moreover, there has been great innovation in this sector, specifically when it comes to toys, nutrition, and GPS services, for example. Consumers use technology when purchasing products because it has become part of the routine. With the survey performed it became known 13,7% of the sample buys pet care products online. As Dr. Susana, one of the vets interviewed, stated "The online market is increasing, primarily among younger consumers. Most times, they buy the first time here but therefrom is always in the Internet."

**Legal:** Recent law changes have empowered the humanization trend. In 2014, new criminal penalties were added to the law to protect animals from violent mistreatment (Portuguese League of Animals' Rights, 2017). In the first trimester of 2017, the legal status of animals changed. The Law 8/2017 of March 3rd considered them living beings instead of objects. Moreover when concerning antiparasitic products, these must always be authorized first by Directorate General of Veterinary Medicine, in order to be sold.

**Environmental:** Referring, once again, to the global pet care overview, one of the biggest trends of the market is the demand for green, clean and certified products. This is reflected in Portugal as well. Especially among young adults, who believe they must be responsible consumers. They tend to choose products with no artificial ingredients, and with natural or biological certification. After conducting the interviews with specialized vets it became clear the trend of "pet humanization" exists in the Portuguese market. As Dr. Pedro Francisco stated "Nowadays, there are a lot of foods that were thought with that purpose. I am thinking about the case of food without cereals. Because dogs and cats are carnivore animals, people think they shouldn't eat cereals".

And even though Dr. Pedro Matias believes there is a "niche market of people in favour of products of natural origin", it is a segment which is currently showing growth. For example, with pet food being labelled "gluten free" and "grain free", there is a New York City based company The Farmer's Dog, which specializes on "personalized meals that are customised and tailored to your dog", and received seed funding of 2 million US dollars. This comes to show there is enough information to prove this niche market has plenty of potential (Euromonitor, October 2016).

### Porter's Five Forces

Porter's Five Forces will be the tool used to analyse how attractive an industry is, in terms of profitability. According to Michael Porter, "The essence of formulating competitive strategy is relating a company to its environment (...) The state of competition in an

industry depends on five basic competitive forces. The collective strength of these forces determines the ultimate profit potential in the industry.” (Porter, 1998).

Before analysing each force, it is crucial to have a clear definition of the studied industry. There are currently two types of pets’ parasites: internal and external. With Naturneem in mind, this project will focus on external parasites, and therefore an analysis on the **industry of biological and chemical free external antiparasitics in Portugal** will be developed.

In this section it is important to remind the majority of information to assess the five different forces was gathered through interviews, a survey, and insights given by Conceição Martins, the founder of Naturchemis.

### **Threat of Entry – Medium Low**

Bureaucracy and legal requirements are relatively high in this industry. In order to be sold, every product needs to be authorized by the Directorate-General for Food and Veterinary (DGfV) first. This implies all products must abide to all safety and quality prerequisites, demanding companies to have studies to back them. In addition, in order to receive a legal authorization companies must pay a fee of 1 600€. Nonetheless there are bigger established companies, who already have ease of distribution and advertisement, which can prevent smaller players from entering the market, since they might find many difficulties in reaching clients.

### **Supplier Power – Medium**

Besides neem there is only one more oil in which these kind of products are based on, and it is called geraniol.

There are a lot of neem oil manufactures, mainly in India, who do not export to Europe. Having a supplier that is a distributor in Europe is very important in terms of taxes, and availability of products. Thus, the switching costs would be too high. Evaluation costs

aside, companies would have to modify the product in the DGAV. This would imply new clinical trials, and suppliers do not always have those types of documents.

### **Buyer Power – Medium and Increasing**

These products can be sold to consumers through retailers or specialized stores (B2B), such as pet store, pharmacies and veterinaries; as well as directly to them via online stores (B2C). Buyer power was further analysed by separating the two.

### **B2B – Medium High**

This segment includes clinics, specialized pet stores and supermarkets. Starting with stores and supermarkets, these two vendors buy in higher amounts, and have the possibility to apply big discounts to products, which gives them a higher bargaining power.

Clinics are not able to discuss the price when buying products, but can have a huge impact on consumers' decisions. Based on the interviews and the survey developed, it is known pet owners' perception over the available products are very much influenced by vets' advices. Vets are aware of it, which gives them strength. Plus, there is a dialogue among professionals, increasing the availability of information, and consequently their power. These factors combined with a high threat of substitution, boost their bargaining power.

### **B2C – Medium and Rapidly Increasing**

Pet owners do not have a direct power on price. They have been buying small volumes at retailers with a fixed price until now. However, the internet is changing consumers' habits. Due to availability, and easy access to information, people can search for other products and suppliers, ending up comparing prices, in order to find the cheaper alternative. According to the interviewed vets, clients often look online for the product they first bought in the clinic because it is cheaper, and offers more options. Meaning consumers' bargaining power is increasing.

### **Threat of Substitution – High in the General Market of External Antiparasitics**

The general market of external antiparasitics falls into four types of products: pills, pet treats, pipettes (or spot-ons) and sprays. These types of products are the ones considered as substitutes, including the ones with chemicals, since all pet owners who want to use biological antiparasitics might not find them, and might end up buying these alternatives. With this in mind the threat of substitution is high for the following reasons: **a)** the switching cost for the consumer is very low. They only need to be educated on how to use the product the right way, therefore it is relatively easy for them to change products. In addition, there are no safety hazards for pets, meaning that it is safe if in one month they use one product, and in the next another. **b)** Pills and pipettes have been proven very effective lately, and vets have been advising them more. As a consequence, consumer's preferences rely on these two types, giving them a higher market proliferation. Nonetheless the demand for healthier and natural products with less chemicals is definitely increasing among consumers, as concluded in previous chapters.

### **Industry Rivalry – Low but Increasing**

The rivalry in the antiparasitics for pets market is intense. There are a few established players with a higher capacity of production, with substitute products that are already strong brands, and a household name for many. Nevertheless the market is growing, and niche markets are also increasing. When looking into the niche market of healthy and environmentally sustainable products, the concentration of producers of said chemical free antiparasitics is low.

#### Competitors

**Direct competitors** are perceived as all products originated from neem oil, or from its equivalent substitute: geraniol oil. There are three other products in the Iberia Peninsula which offer neem oil for pets: **Oveneem** and **Max Biocide** from Spain, and **Oftalvert**

from Portugal. **Oveneem** works for all kinds of animal, from farm animals to pets, however the product itself is neem oil concentrate. Meaning it is not diluted, and the consumer must dilute it him/herself. **Max Biocide** has the particularity of being antiparasitic collars with 4,5% neem oil for both cats and dogs, being affordable at a price of around 5€, online. **Oftalvert** is to be used solely for pets' eyelids, and works with pipettes of 5ml, each with 0,5% neem oil.

**Geraniol oil** can be used just as neem oil, having the same effect of repelling insects, however there have been studies stating this product develops irritation in the eye and/or skin, while also attracting bees (National Library of Medicine Hazardous Substances Data Bank, 2016). The best products in the Portuguese market which use this substance are **Repul'7** and **Biospotix**. **Repul'7** sells the substance in both pipettes and collars for cats and dogs, with prices ranging 8€-14€ depending on the product. Finally, **Biospotix** is a brand that sells collar for dogs and cats, with the competitive price of 6€-7€. Collars compete against Naturneem's spray product since the owner does not have the additional worry of administering the antiparasitic onto its pets. But with these collars there is no emotional relationship being fostered between the owner and the pet, as there is with Naturneem.

In this chapter, it is important to point out once more the specific situation of the Portuguese market. Even though it is clear the niche target for Naturchemis's product exists, pet owners who may be ready for a healthier solution still listen carefully to their vet's opinion (as 78,4% of the surveyed pet owners pointed out). Since vets are still not aware of the product and, thus, do not recommend it, right now the competition for Naturneem does not come from the products above listed, but mainly from **pills and spot-ons**. In order to recommend Naturneem, vets need to understand Naturneem's advantages and how effective it is.



To better understand the full characteristics of Naturneem, the following internal analysis was developed.

## Internal Analysis

**Mission:** Naturchemis follows the importance of growing crop fields with biological chemicals, which do not harm the land.

**Vision:** To enter the pet market, with the very versatile product that is neem oil.

**Values:** Sustainable and responsible business.

## SWOT Analysis

Strengths:	Weaknesses:
<ul style="list-style-type: none"> <li>• Certified biological product by Sativa and General Direction of Veterinary Medicine</li> <li>• Local production</li> <li>• Helps build a connection with the pet</li> <li>• Competitive Price</li> </ul>	<ul style="list-style-type: none"> <li>• 10ml for 1kg of pet</li> <li>• Difficult application</li> <li>• Odour is very strong</li> <li>• Neem oil is unknown for the common Portuguese consumer</li> <li>• Naturchemis is only known around the agricultural market</li> <li>• Poor distribution</li> </ul>
Opportunity:	Threats:
<ul style="list-style-type: none"> <li>• Pet care market on the rise in Portugal</li> <li>• Due to pet humanization, pet owners are willing to spend more on their pets</li> </ul>	<ul style="list-style-type: none"> <li>• Substitutes have easier application</li> </ul>

Table 1 - SWOT Analysis

To better understand this SWOT analysis, detailed explanations follow.

When it comes to the **strengths**, since Naturneem comes in spray form its use demands for it to be used by massaging the pet. This helps develop the **emotional bond** between the pet owner and its pet. Moreover, the price of the product is competitive when comparing to its competitors and substitutes, who don't offer the same benefits.

Regarding the **weaknesses**, the fact **10ml of the product covers 1 kg of pet is not ideal for bigger animals**, whose pet owners will need to spend more product on, when comparing to smaller pets. Meaning one bottle of the product can be of either positive or negative use, depending on the size of the pet the product will be used on. Moreover, the

product has **poor distribution** being solely available online – on the company’s website – and in small stores of Agriloja, and other pharmacies, however with little stock.

On a positive note, regarding **opportunities**, there has been a **recent growth in the pet care market**. As seen in Graph 1 “the annual value of pet related products and services in Europe” has increased since 2010, and has maintained a steady growth. By looking into Graphs 2 and 3 it can be learned more Portuguese people have had dogs and cats as pets in the last few years, with a spike between 2012 and 2014 for both animals. Moreover, the fact more European households have also welcomed pets in their homes - Graph 4 - also encourages the growth of products and services available for pets and pet owners. This scenario is also portrayed in Portugal (Graph 5) even though it is stated there are more pet dogs, than pet cats, the number of pet cats has been increasing (21% in 2010 and 30% in 2016). Whereas pet dogs haven’t had the same stable growth, having a lower share in 2016 (35%), when comparing to 2010 (40%). Interestingly enough, with these numbers there are only 7 retail chains of pet care in Portugal (Graph 7), besides the expected revenue of gardening and pet store retail in Portugal showing a steady growth from 2015 onwards (Graph 6).

Referring to the concept of “**pet humanization**”, this phenomenon shows the ability of pet owners treating and seeing their pet as a human being, and as part of the family. This is one of the key trends and developments of the pet care market in Portugal showing pets as humans, and not objects, just as it has been since proven by pets’ new legal status in the first trimester of 2017 (Euromonitor International, 2017). By considering their pets as living beings, pet owners’ personal worries also apply to their pets. Meaning pet owners who worry about chemical induced products, and buy biological products, will do so for their pets as well.

Finally, when it comes to the **threats**, by being **only available in spray form**, the application of Naturneem takes longer than its substitutes. Other products, for example collars, pet treats and ampules or spot-ons, do not share this problem. This also means the right way of administering the product is harder than its substitutes, since the product must be applied onto the fur of the animal. That is, it must touch every piece of hair there is, in order for the product to work efficiently. This can show to be a difficult task for pet owners, since their pet must stay still for a certain period of time, which might not always happen.

#### Naturneem's Advantages

Naturneem excludes itself from its competitors by having **5% neem oil** on the product and **very positive feedback** from past and current clients (chapter V of the Appendix). It has a **competitive price** pet owners are willing to pay. In addition, since this is a spray product with a capacity of 250ml (10ml for 1kg of pet animal), it is also hoped the targeted consumer will buy it more often. Naturneem's direct competitors have low prices since they are seen as last-minute alternatives for one-time occasions, whilst Naturneem's approach is to satisfy the pet owner who goes through the process of humanizing their pet, only buying what is best, regardless of price. Plus, as stated before, there is space in the Portuguese market for this niche.

By analysing the answers to the survey conducted, 95,6% have stated they would be willing to spend more time applying an antiparasitic, if it were healthier for their pet. Additionally, 81,2% of the 170 people that stated they live a healthy lifestyle, that takes into account the origin and the ingredients that make up for the products they use on a daily basis, admitted they have the same worries when it comes to the products they buy for their pets.

In conclusion, Naturneem offers various advantages, which haven't been taken into account successfully. The following strategies were developed in order to answer this problem.

## Strategies

After conducting the market research and elaborating both the external and internal analysis for the company, it is concluded that Naturchemis faces two main problems: even though, there is a market for the product, the Portuguese (including consumers and professionals of the pet care trade) are not aware of its existence, and the product lacks distribution.

With this in mind, the strategies proposed will focus on **educating both consumers and veterinarians** about neem oil and its benefits, and **increasing distribution channels**, through B2B and B2C strategies. Furthermore, "Marketers must segment the market, select the appropriate target, and develop the offering's value positioning. The formula "segmentation, targeting, positioning (STP)" is the essence of strategic marketing." (Kotler and Keller, 2012). For this reason, and in order to determine the course of action, Segmentation, Targeting, Positioning and Marketing Mix will be performed for both channels.



Figure 1

Regardless of this division, there is a common purpose that must be taken into account - a **new design for the product's image**. The current package has a dark colour and is not appealing to consumers (see Figure 1). The cost of this change will be explored further below.

Naturneem is certified by Sativa as a biological product. This characteristic is the basis for the product's competitive advantage and, as such, it should be stated on the label, to be easily identified by the consumer.

However, the product cannot have “biological” and “organic” written on the bottle, nor a biological stamp since that is solely reserved for food, as the following quote states: “Organic products range from fresh fruits and vegetables straight from the farm to wines and cheeses aged over several years” (European Commission, 2017). Nevertheless, there are other words with the same intent that the packaging can have. For this purpose, it is suggested for Naturchemis to use the **help of an agency** focused on design, publicity and event planning, which can help with the new design and the semantics legally allowed. After searching for brands with impactful campaigns, Pixray came across as the right fit. When contacting them with the proposition of relabelling the product, the approximate cost given was of 250€ (including design and new bottle packaging).

On another note, the product can only be sold for dogs and cats. This happens because there are only scientific studies that prove the benefits of neem oil on these animals. To expand the product to other types of animals - such as horses, pigs, cows and guinea pigs - new scientific studies must be performed.

As a final note, even though one of the challenges stated in the SWOT Analysis was the odour of the product, no clients have complained about it (chapter V of the Appendix), and if it were added any biological odour concentrate, with a more pleasant smell, DGAV would have to approve this new version of the product, which would show to be costly and time consuming.

More detailed information on each strategy, focused on a certain channel, follows.

## B2C

### **Segmentation & Targeting:**

“Companies cannot connect with all customers in large, broad, or diverse markets. (...) A company then needs to identify which market segments it can serve effectively.” (Kotler and Keller, 2012). To segment the market, different characteristics will be analysed:

**Geographic** - Naturchemis is based in Portugal, and is focused on agricultural products, where it has a lot of success, meaning the pet business does not come with any investment. Having said this, the focus of this marketing plan is to be able to get Naturneem across the Portuguese market. In addition to focusing in the company's home country, the chosen target are pet owners who live in the Lisbon Metropolitan Area, since it is a region where people have a big purchasing power (Pordata, 2017).

**Demographics** - Naturneem is a product for pet owners between the ages of 20 and 40 years old. Moreover, as shown in the survey conducted of the sample, whose majority happens to fall between these ages, 71,6% are interested in buying biological products for their pets, even if they are more expensive. As well as 95,6% are willing to spend more time applying a biological product onto their pet, if it will be better for them. Here time is something to take into account, since Naturneem is a spray product, whose correct administration is hard to achieve. Regarding gender it is believed Naturneem is for female pet owners, since as Olivia and Bernabéu stated (Olivia, Bernabéu, 2012) women have a big preference for healthy diets and lifestyles, which fits this target.

**Lifestyle & Activities** - This pet repellent is targeted for pet owners who go through the process of humanization of their pet. That is, consumers who treat their pets as part of the family are willing to spend more money on them, by buying premium products for their pets, from food to toys and other expenses. Furthermore, this pet owner lives a healthy lifestyle, and believes in the importance of living an environmentally sustainable life, having a big demand for biological and chemical free products. Also by considering their pet as a human, they too want to provide their pet this same lifestyle, as shown by 138 people (67,6%) of the surveyed sample.

**Purchasing Behaviour** - Products of biological origin, and contain no chemicals have little to no hazardous impact on the environment. Products containing chemicals can have

a negative impact on the consumer, by providing chemicals which are not supposed to be inside the consumer's biology. Nowadays consumers live a time where sustainable consumption is very important, where consumers wish to diminish their environmental footprint as much as possible (Cohen, 2014). Taking this into account, the targeted consumer follows this trend, is conscious of their personal consumption effect on the planet, and does so in all types of consumption, even for their pets.

### **Positioning:**

Positioning "is the act of designing a company's offering and image to occupy a distinctive place in the minds of the target market. The goal is to locate the brand in the minds of consumers to maximize the potential benefit to the firm" (Kotler and Keller, 2012). Since Naturchemis is a young company, its brand positioning is the key to any consumer's first impression.

When it comes to market positioning the following value proposition, unique selling proposition (or point of difference) and positioning statement (Kotler, 2005) are presented. Naturneem's **value proposition** is its ability to offer a biological substitute for chemically induced treatments for pets. Its **point of difference** is being a biologic product, with a bigger effectiveness rate than its competitors, which have a lower extract of neem oil, as well as other added ingredients. Whereas Naturneem is solely made from neem oil and diluent, making it a more clean and unadulterated product. Naturneem has the added benefit of increasing relationships between pet owners and pets, because of the product's application.

**Positioning Statement:** Naturneem is for female pet owners between the ages of 20 and 40 years old who lead a healthy, environmentally conscious lifestyle, who love their pet, and see them as part of the family. This pet repellent is a 100% biological parasite repellent made from neem oil, which helps deepen the emotional connection between pet

owners and pets. Being a biologic substitute for chemically filled treatments, Naturneem has its very own Sativa certificate.

### Marketing Mix

To “expand segment positioning strategy to include all aspects of the marketing mix: product, price, promotion, and place.” (Kotler and Keller, 2012).

**Product:** Bottles of 250ml of Naturneem, with its original composition.

**Place:** The product’s purchase should continue online, on Naturchemis’s website. This is positive for both the company and the consumer, where on the one hand the delivery is fast, and the client has control over the whole delivering process; while on the other hand, the company maintains its percentage margin. Plus on this platform there is no fear of limited stock, which might happen on the various distribution channels mentioned in the following B2B marketing mix.

**Price:** The product will maintain its original price of 11,93€, since it continues to be competitive when comparing to its substitutes. However, when a consumer opts for buying 2 or more bottles of Naturneem there should be a 10% discount.

**Promotion:** Focusing on educating pet owners who are looking for chemical free biological products that are safe for their pets, there are two ways to achieve this goal. Either by focusing on SEO and SEM, or through a digital social media strategy. SEO and SEM are two tools of implementing an internet marketing strategy, which help increase the visibility of Naturchemis’s website to potential consumers. SEO is focused on improving search pages, in a way that the company’s website shows up first, due to its keywords, as well as due to its user experience. Here the better the keywords match, and the user experience, the better the position of the website on the result page. User



experience refers to a website's capacity of being easy to understand, and easy to navigate for a user.

Moreover, websites whose user experience is positive, show up higher in result pages organically – meaning with no payment involved. In fact the cost of increasing visibility through SEO is made hourly, and costs between 15€-20€ an hour. Naturchemis should not invest in paid SEO, but rather improve the website, in order to achieve better visibility organically. The company's website is user friendly, and does show up on online searches, however only on the ones which contain the words "neem oil". Meaning Naturchemis shows up as an option for consumers who already know about this product. On the other hand, with SEM, there is paid marketing. In this case visibility is not organic, and the first pages that show up on search engines are the ones who pay accordingly. Here it is easier to measure the success of a campaign, through metrics such as CPC, CTR, BR and CAC (Chaffey, Ellis-Chadwick, 2012). These calculations help analyse the number of hits the website has gained, as well as the customer journey. Consumer journeys help brands understand where the user found more difficulties in continuing the navigation on the brand's website (Court, Elzinga, Miller, Jørgen Vetvik, 2009), mostly through a conversion metric, such as churn rate. This metric is able to show the percentage of people who left the system. Payment for SEM works on strict budgets, where after the CPC is hit, the ads stop showing up on search engines. And even though Google Trends shows a spike in search rates of "neem oil", in the last week of each month, in Portugal (Graph 8), small businesses don't often increase their value through Google Ads. This happens since paid SEM comes with the added challenge of big companies who can pay more, meaning they will always come first on searches, and the cost small businesses are paying does not have a positive ROI (Rampton, 2014).

The other digital strategy available is to invest on social media platforms. Here it will be discussed the investment of promoted Facebook posts. With Facebook the smallest amount one can spend is 1\$, and with even that small contribution it is possible to choose the audience targeted through indicators, such as age, gender and location, as well choose the amount of time this post will be promoted for. There is a budget you can set beforehand, on the investment spent for each post, which also works as an auction, but seen it's a social media platform what is being bought is media space. That is, you pay a slot for your post, in the timeline of your target. Having the possibility of narrowing your target is a big advantage from SEO, since the Facebook post will always be seen by a fraction of your target. While in SEO you pay for your ad to show up in searches which might not resonate with the targeted customer. Moreover, advertising through a social media company has the advantage of the companies being able to measure the CPC for each interaction with the post, from viewers, to reactions made to the post – including a description of each one, from “likes” to “loves”, “comments” and “shares” – and feedback notifications, meaning any reports of spam, or even number of commands for “hiding” a post. However, even though Instagram is the upcoming social network used for advertising, it asks users to engage with posts, and asks for a bigger investment in mobile optimization, since Instagram's ads are only shown on the mobile app. This option is more costly, than Facebook.

Having this into account, it was found Facebook to be a safer bet for small businesses, such as Naturchemis, and the right digital strategy chosen for B2C. Here the advised investment on each post is of 5€ for each day of the last week of each month, during the 3 months of Summer (June, July and August) based on the Google Trends found (Graph 8). On the following year this monthly value can double, depending on the results received.

Apart from promoted posts on social media, a video showing how to apply the product correctly on their pets should be produced for the website page of Naturneem. Here the aim is to educate the pet owner on how the product should be used, as well as the benefits of neem oil. In addition, with this purpose the product page should also show the data sheet of the product so pet owners can learn about Naturneem's composition. All of these additions to the product page should be mobile optimized as well, since internet users log onto the internet more often on their mobiles, rather than on their personal computers (Gibbs, 2016).

Moreover Naturchemis's website should post more blog posts about Naturneem. The website already has a section for their blog, but it focuses solely on agriculture. Thus there is an opportunity to focus on Naturneem, with posts about satisfied pet owners with their personal statements, in order to create emotional engagement from future consumers. These sort of posts have a bigger impact on potential consumers as a call to action (Forbes Coaches Council, 2016). For this idea it is also advised the creation of a weekly newsletter with all the new information about new products, success stories of past and current consumers, and information on other raw materials that can be used in a way to substitute chemical induced goods. All of this content should be updated on a regular basis, and free of cost, since Naturchemis already has the means to make this sort of content, as shown on the company's website and Facebook page. Moreover all of these posts should be promoted on their Facebook page.

In fact, knowing this strategy revolves around creating awareness of both neem oil, and Naturchemis, while having the purchase of Naturneem as a consequence of the awareness received, all promoted posts will be done with the goal of bringing awareness over Naturneem. Meaning the KPIs for the campaign will be more focused on the expected

awareness, rather than the number of purchases made. This will be explained further in the chapter about each strategies' KPIs.

On an evaluation level, it is needed to have conversion calculations (BR and CTR) and CPC values in order to compare the money invested and its result. These calculations show the amount of times consumers clicked on the Facebook post and went to the website; the amount of clicks made until reaching the page of the product itself; as well as the number of clicks which led the consumer to the shopping cart page; the amount of clicks by consumers who finalized their purchase of at least one Naturneem bottle; and even the cost made for the newsletter, that is if consumers accepted to receive the newsletter, if they opened it, if they deleted their subscription, if they clicked on the articles and visited Naturchemis's website. Facebook thankfully makes these calculations, and is able to show the raw data needed to analyse a company's digital campaign.

## B2B

### **Segmentation & Targeting:**

Once again, taking into account the theory used for the B2C Strategy, different characteristic will be considered when segmenting the market.

**Geographic** - As a first step, Naturchemis should focus on Lisbon's Metropolitan Area because it is near the company's location. After all, the need to educate consumers is still very high and the company's capacity is still low, and a well-functioning distribution service has to be ensured. Also, taking into consideration the target mentioned in B2C, this metropolitan area was chosen due to the high concentration of educated people, and their purchasing power. According to the data from the last census (2011), Lisbon's Metropolitan Area had 31,2% of the country's college students (Pordata, 2017), and the highest percentage of purchasing power, 124,7%, when comparing to the rest of the country (Pordata 2017).

**Type of firm** - The type of firms targeted are veterinary clinics, pet stores and pharmacies. Because of the need to spread awareness near consumers, veterinary clinics and pet stores should be the main focus. Based on the interviews with the vets, and the survey, it can be stated pet owners still give a lot of importance to the advices given by their vets, and pet store clerks. 78,4% of the surveyed pet owners admitted they base their opinion on what their vets tell them what product they should buy, while 29,4% mentioned they valued the opinion from the pet store clerk more. Furthermore, 65,7% of the sample buys the products related with the pet's health at veterinary clinics, whereas 56,9% do so at pet stores. Once the consumers are familiar with the product, Naturchemis should enjoy distributors' network and extend the product's stock to pharmacies (23% also admitted to purchase through this channel).

**Purchasing Behaviour** - Neem oil is still unknown for the vast majority of the specialists in the veterinary field. Meaning Naturchemis may face some scepticism and difficulty in selling the product, since it will be the first time vets will be knowledgeable about neem oil. Nonetheless, once that obstacle is surpassed, the targeted firms are likely to demand higher volumes.

**Benefits sought** - The different segments may differ in the benefits sought. Veterinary clinics, by using their power of education and showing their clients how much they care for their pets' health, may be able to keep some of the consumers that are fleeing away to e-commerce, by appealing to their loyalty. Pet stores and pharmacies can then answer to their clients' demands for healthier products, which can differentiate them from their direct competitors.

### **Positioning:**

The same theoretical framework mentioned previously will be used. Following Keller's approach, in order to define Naturchemis' positioning, competitors must be studied to

determine the differences between them and Naturchemis. The competition analysis previously done shows several competitors within the Iberia Peninsula. Comparing with Oveneem and Max Biocide, Naturchemis has a clear geographic advantage over the labs producing those products, since they are located in Spain, being faster for Naturchemis to respond to distributors' orders and replace stocks. Considering the other products made from neem oil besides these two, Oftalvert is only destined for pets' eyelids, making it a product for very specific issues that may arise.

Here the **value proposition** remains the same as the one stated in the previous strategy. In addition, the **point of difference** to take into account is the fact Naturchemis is the closest company in Lisbon to produce an effective biological parasite repellent, made from neem oil that can be used on pets' body.

**Positioning statement:** To veterinary clinics and pet stores located in Lisbon's Metropolitan Area, Naturchemis is geographically the closest supplier offering an effective 100% biological parasite repellent. Its natural properties make up for its differentiation, working as a Sativa approved substitute for chemically filled treatments.

## Marketing Mix

**Product:** At the moment, Naturchemis only sells bottles of 250ml. Each 10ml is equivalent to 1kg of the pet. From the information obtained through the survey, 115 in the 204 people that answered, stated that they have more than one pet (which represents 56% of the total). With this insight, the possibility of having a bigger package with 500 ml rose. However, while speaking with Conceição, it was said that it costs 500€ for the DGAV to approve new packages. This is not a priority right now and, therefore, it was decided this idea would be put on hold, depending on how the business unfolds.

**Place:** Veterinary clinics, pet shops and pharmacies in the Lisbon Metropolitan Area.

**Price:** Right now Naturneem is sold to its existent distributor at 7,50€ a bottle, and sold to the general public for 16,95€, with both the distributor and the selling points keeping 30% of margin each. At this point the price of 7,50€ will be kept.

**Promotion:** The priority in the Marketing Communication Plan is to make the selling points (clinics, stores, etc.) aware of the existence of the product, as well as of the benefits of neem oil. Currently Naturchemis only has one worker knowledgeable enough to perform this task - Conceição Martins, the founder. However she alone does not have the ability to publicize, and sell the product across Lisbon's region.

From the interviews with the vets, it is known they usually buy products through distributors, who have sales representatives that not only sell the products, but also introduce them to new things in the market. So for the B2B clients the company will develop a **one-level Industrial Marketing Channel Strategy** (see Figure 2).

Figure 2 shows channels commonly used in B2B marketing. In this case, Naturchemis would sell to industrial distributors who sell to industrial customers. But why would Naturchemis “delegate some of the selling job to intermediaries, relinquishing control over how and to whom

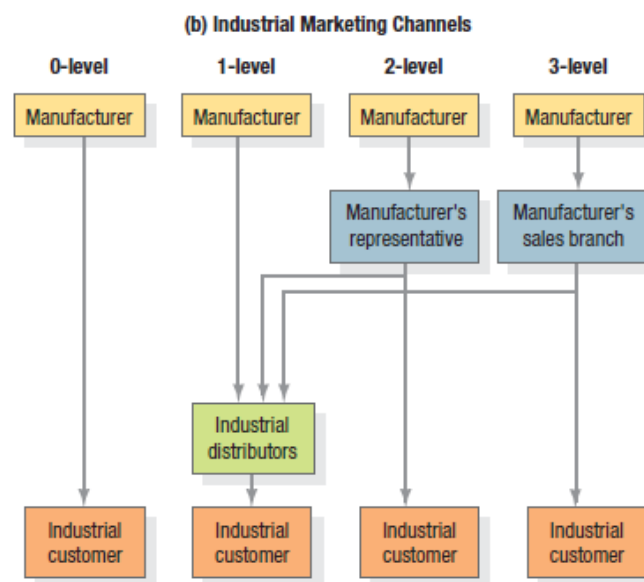


Figure 2 – Industrial Marketing Channels (in page 420 of Marketing Management by Philip Kotler, Kevin Keller)

products are sold?” (Kotler and Keller, 2011). Because “through their contacts, experience, specialization, and scale of operation, intermediaries make goods widely available and accessible to target markets, usually offering the firm more effectiveness

and efficiency than it can achieve on its own.” (Kotler and Keller, 2011). And that is exactly what the company needs. As mentioned before, Naturchemis is presently not being able to reach vets. To overcome this obstacle, the company should target distributors with experience in this specific market, and that already have a considerable network and a customer portfolio in Lisbon’s Metropolitan Area. They might enjoy a certain reputation, and are more trusted by professionals, which will come as an advantage.

After establishing deals with the chosen distributors, it is essential to provide them specific knowledge and information about the product because, at least in the beginning, they will be crucial in terms of spreading the benefits of the product. From the insights given by the interviewed vets, it is clear that for them to start using and recommending the product, proof and studies about its quality and safety must be straightforward and unequivocal. For that reason, Naturchemis would be responsible to prepare a presentation where the strengths of the product will be highlighted as well as the key results of the studies. Here, besides the biologic and health aspects, it is important to note that Naturneem works as a repellent too. And if in the beginning there are some sceptical vets and pet shop owners, it is possible to publicize the product as a complement for antiparasitic pills, since pills are many times suggested by professionals, but do not serve its repellent action. Once people are able to observe Naturneem really works, they may be willing to switch for the product, backsliding the options that have chemicals, and are more evasive for pets. Furthermore, the studies should be made available for everyone through the firm’s website.

From the phone calls made to current Naturchemis’s clients, it is known some of them actually use the spray in the places they know in advance their pets will be (for example, carpets) or on the objects they play with, which works just as well as when it is applied



on their fur. This finding was discussed with Conceição and it was confirmed to be true, even though there is no study that can back this information. Nonetheless, to be able to use that as an advertisement, a new legal request asking for permission would have to be made towards the Directorate-General for Food and Veterinary, which would imply some more costs (1 600€) the company does not want to afford, without knowing if the product will triumph within the market. In addition to the marketing done directly to vets and store owners through the distributors, flyers would be printed out and distributed throughout various clinics and pet shops. This would lead to let potential clients know about this new biologic and chemical free product, and educate them on how to correctly apply it.

#### Communication Plan - Jobs To Be Done

In order to develop the two campaigns, one focused on B2C, and another focused on B2B, the following communication plan was developed. This table shows the structure of each strategy, depending on its market.

Audience	Message	Media or Vehicle	Frequency	Timing	Feedback Mechanism
B2C	Naturneem is the 100% biologic and effective product pet owners want to substitute chemically induced treatments with	Facebook Ads and Blog posts	Facebook Ads monitored on a monthly basis, with blog posts every week, with promoted ads in the last 7 days of each month	Throughout the year. However invest more on SEO & SEM during the end of each month because that's when "neem oil" has its peak of popularity search, according to Google Trends	CTR, CPC, BR, CAC
B2B	Possibility to satisfy a niche target	Distributors	Increase number of distributors by 3, annually	There is no specific timing. When the stock of the distributor is ending, they order more	Number of sales and number of orders

Table 2 – Communication Plan

## Financial Analysis

To assess the feasibility of the two suggestions (B2B and B2C) for the future of Naturneem, a financial analysis was conducted. For both strategies, there are some aspects in common, such as the **unitary cost** and the investment cost of **making a new design** for the label of the product.

Knowing Naturchemis focus on their agricultural products, the company does not have a defined budget for Naturneem. With this in mind, all calculations were made without budget limitations. The **total unitary cost** comprises both the direct and the indirect costs. Direct costs include neem oil, distilled water, package and label and are a total of 1,29€. Even though, an investment in the new design is being made, it is assumed the price of producing each label will remain the same. After adding the indirect costs (1,50€), the total cost per unit is 2,79€ (chapter VI of the Appendix). The change of labelling is also taken into account, with an initial investment of 250€.

These scenarios were calculated with an investment life span of 4 years, beginning in 2018, and ending in 2022.

### B2C Scenarios

The B2C strategy revolves around **promoted posts on Facebook**, where users who find said posts on their timeline choose to click on them and purchase Naturneem. For the purpose of having one Optimistic, and one Pessimistic Scenario, the difference between the two is the percentage of engagement. Meaning in the Optimistic Scenario it was assumed 70% of the users who come across the promoted posts on Facebook end up buying Naturneem, whereas in the Pessimistic Scenario only 30% of the users who see the post buy Naturneem.

In the survey conducted it was established that 71,6% of the sample is looking for a chemical free substitution for antiparasitics, hence the assumption for the Optimistic Scenario. Within this percentage, 56% has at least two pets. As it was stated before, each

Naturneem bottle has 250ml, so it was assumed pet owners with two or more pets, would buy two bottles. Moreover, having the website with a 10% discount for any purchase of two or more bottles, where it was assumed every 56% out of the users who clicked on the promoted post on Facebook bought two bottles, with said discount. Here, two bottles cost 21,47€, and one 11,93€.

In both Optimistic and Pessimistic Scenarios, the same investment was put into account, with 5€ being spent for the last week of June, July and August. The number of users who saw the post was also the same: 250 people. Also in both scenarios, in every cost calculation it is counted the 0,60€ CPC, as well as the cost of production per unit of bottles bought. In these scenarios the growth is calculated with the increase of viewers who are impacted, and not a fixed percentage. The assumed CPC is given through Salesforce's "Facebook Ads Benchmark Report 2014" values for CPC (0,1€) and cost per impression (0,4€). The sum value was later calculated taking into account the inflation of the value of money, where the Stadt Bureau EU calculator was used. In the world of advertising this value is only attained after a campaign is done, however seen the financial analysis of this marketing plan needs the value of CPC, this was the approach to achieve an assumption of the cost.

**In the Optimistic Scenario**, with 70% of impacted users who buy Naturneem, it is decided to invest more money on the following year including the months of May and October, which follow the Google Trends already mentioned in the last chapter. With this increase of investment, there are more people who see these posts, meaning there is a bigger reach, and consequently a better engagement from users, who react to the posts, share them, comment on them, and follow Naturchemis's page. This makes it possible for Naturchemis to invest the double amount invested in the second year, on the same months, in the following two years, which prove to be positive in the first year, and having

a decrease of engagement in the second year of investment. The initial value of 250 reached users is based on the fact this investment is made solely in the Lisbon Metropolitan Area.

OPTIMISTIC Where 70% of users click the Promo Posts and buy Naturneem					
# Views Growth			160	410	-110
	0	1	2	3	4
Revenues		3 022,67 €	4 957,18 €	9 914,36 €	8 463,48 €
Costs		852,67 €	1 398,38 €	2 796,76 €	2 387,48 €
Growth margin		2 170,00 €	3 558,80 €	7 117,60 €	6 076,00 €
Investment	-355,00 €	-175,00 €	-350,00 €	-350,00 €	
FCF		1 995,00 €	3 208,80 €	6 767,60 €	6 076,00 €
more than 56% out of the 70% have 2 pets (need two bottles)					

Table 3 – Optimistic Scenario B2C

**In the Pessimistic Scenario** it was found that after the promoted posts, there were in fact a lot of users who saw the posts, the same amount in year two of the Optimistic Scenario, but few (30%) who engaged with the posts and ended up buying Naturneem. Seeing the investment does not have a big impact on the money gained from the consumers, with little engagement, and little sales, which show up as a growth margin of less than 1 000€, it is decided to invest less. From year 2 onwards it is only invested on the last three days of each month of the summer. However seen Lisbon is a very entrepreneurial city (Euronews, 2015), and with the pet care market rising, the auction for media space on Facebook will only get higher, so Naturchemis will have more competition, giving the company less reach. There will be a fewer number of users impacted by the posts, and the amount of users who buy Naturneem will not justify the money invested. With this in mind, Naturchemis keeps its investment of 5€ for June, July and August, for the rest of the four year campaign strategy, with the possibility of letting go of said strategy at the end of the fourth year.

PESSIMISTIC		Where 30% of users click the Promo Posts and buy Naturneem			
# Views			-200	-25	-10
Growth					
	0	1	2	3	4
Revenues		1 295,43 €	259,09 €	129,54 €	77,73 €
Costs		365,43 €	73,09 €	36,54 €	21,93 €
Growth margin		930,00 €	186,00 €	93,00 €	55,80 €
Investment	-355,00 €	-45,00 €	-45,00 €	-45,00 €	
FCF		885,00 €	141,00 €	48,00 €	55,80 €

Table 4 – Pessimistic Scenario B2C

### B2B Scenarios

In the Strategies chapter (given the price obtained) it was decided that Naturchemis would not produce a 500 ml package. Pixray was the company used for the manufacture of the flyers as well. For 500 flyers with the size 10x20, this company charges 95€. It is not a substantial investment but it will be put on hold given that Naturchemis only has one distributor. First, the company has to consolidate its relationships with more distributors, and then evaluate whether it makes sense to execute this investment, or not. It may be the case that consumers readily accept the product and there's no need to do the flyers. Hence, the B2B strategy will be solely based on the **distributors' strategy**.

At this moment the company does business with only one distributor - Cruz Amarela. In 2016, Naturchemis sold 62 units of Naturneem to Cruz Amarela for 7,50€ each. This distributor has a network of pharmacies and pet stores that were selling the product for the final consumer at 16,95€. With this information in mind, and taking the research done near the distributor into account, it is known that in this industry, the distributor and the retailer get 30% of margin each. Plus, contacts with distributors are mainly done by email and, in a second phase, through personal meetings. Even though it could be time consuming for Conceição herself, it will be assumed that it doesn't imply extra costs.

For this analysis, some assumptions were necessary. Taking that into consideration, two different scenarios were created - the Optimistic and the Pessimistic. On both scenarios,

it is assumed the same value for the investment (250€ from the new label), and that all distributors have the same behaviour.

**In the Optimistic Scenario**, it is considered Conceição is able to make business with five distributors, including the one existing. For the first year, it is estimated that all five distributors are able to sell 62 packages and, therefore, order said packages to Naturchemis. For the following year, a growth rate of 70% is projected, based on the answers to the survey (71,6% of the inquired stated that they would buy the product). In the subsequent years, the growth rate is expected to lower down over the years.

OPTIMISTIC					
Naturchemis is able to make business with 5 distributors (including Cruz Amarela)					
Growth rate (%)			70%	40%	20%
	0	1	2	3	4
Revenues		2 325,00 €	3 952,50 €	3 255,00 €	2 790,00 €
Costs		864,90 €	1 470,33 €	1 210,86 €	1 037,88 €
Growth margin		1 460,10 €	2 482,17 €	2 044,14 €	1 752,12 €
Investment	-250,00 €				
FCF	-250,00 €	1 460,10 €	2 482,17 €	2 044,14 €	1 752,12 €

Table 5 – Optimistic Scenario B2B

**In the Pessimistic Scenario**, the number of distributors is smaller, with Naturchemis only making business with one more distributor (which makes two in total). As in the other scenario, it is also expected both distributors to sell 62 packages in the first year. The growth rates considered are half the ones used in the Optimistic Scenario.

PESSIMISTIC					
Naturchemis is able to make business with only 2 distributors (including the one existing)					
Growth rate (%)			35%	20%	10%
	0	1	2	3	4
Revenues		930,00 €	1 255,50 €	1 116,00 €	1 023,00 €
Costs		345,96 €	467,05 €	415,15 €	380,56 €
Growth margin		584,04 €	788,45 €	700,85 €	642,44 €
Investment	-250,00 €				
FCF	-250,00 €	584,04 €	788,45 €	700,85 €	642,44 €

Table 6 – Pessimist Scenario B2B

## Key Performance Indicators

### B2C

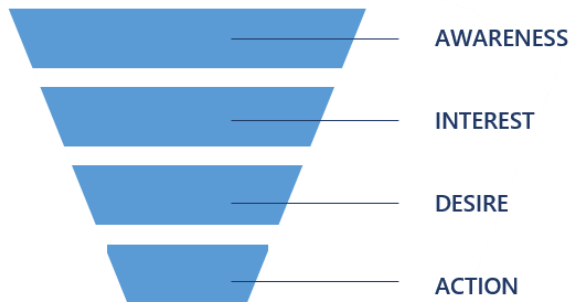


Figure 3 – Conversion Funnel

The KPIs used to measure the success of these scenarios are the **metrics of conversion** (Figure 3 shows the Conversion Funnel representing online consumer journeys) obtained from the promoted posts on Facebook. Knowing

the goal is to educate the public about neem oil through posts Naturchemis's page publishes, the most important metric is **CPC**. Here the CPV will not be taken into account since on Facebook that metric is often used for video content, whereas in this strategy the posts being promoted are blog posts, meaning what is counted is the conversion of users who go onto Naturchemis's website. In this case it is better for users to visit the site because that way users can learn more about the product, the company and how to buy the product. With this in mind, CPC is the preferred metric.

The clicks taken into account are the number of people who click on the posts and buys Naturneem, as well as the number of people who are impacted by Naturchemis's Facebook in any way.

CAC should also be taken into account, regarding the newsletter, and its effect on the consumers. Here it is possible to measure the amount of consumers who started to read the newsletter, cancelled the newsletter or even engaged with the newsletter, when clicking on certain articles and visiting Naturchemis's website.

The financial analysis measures the quantitative value of this campaign, but it is also important to measure the qualitative value. The **qualitative value** has a ROI measured through reactions to posts, shares, comments and the rise of Facebook followers; whereas the quantitative value has a ROI measured by number of bottles bought. The qualitative

metrics are used in order to study the **awareness and brand equity of Naturneem**, as well as if the brand was successful in educating Portuguese pet owners looking for chemical free and sustainable products, or not. On another matter, CLV is not calculated in this campaign, since they are better metrics for e-commerce, rather than for social media campaigns, where the goal is to create awareness. CLV is better used for online services which have monthly fees for example.

The difference between Optimistic and Pessimistic Scenarios is the engagement received from users. In the **Optimistic Scenario** Naturchemis's Facebook has a bigger engagement from users, with a lot of positive reactions on posts, and an average increase of 5 follows per promoted week. Whereas in the **Pessimistic Scenario** there is little, to none engagement, having no participation of users on the social media page. Here the amount of follows on Naturchemis's page is of 5 every two months.

This sort of relationship between brand and consumer is important since it can increase number of purchases, for clients who have preferred brands, with whom they believe they have a relationship with, will purchase its products more often (Forbes Coaches Council, 2016).

## B2B

In this strategy, all KPIs are based on **distributors**. It is important to keep track on distributors' performance, namely **orders' volume and frequency**. The company needs to be aware of which distributors are selling more, and if that number is growing over time. Given that in the B2B segment, distributors will be representing Naturchemis's image, the way they interact with customers is significant. In this matter, **delivery time and number of consumer complaints** should also be monitored.

In the beginning the company will educate distributors, who in turn will start the education process of various potential clients. Thus, it becomes fundamental to consider the **relationship with distributors as a Key Success Factor**. A good relationship with



distributors may increase distributor commitment and trust. To encourage this, the company should keep a **frequent communication** and have **personal interaction** with key people within the distributors (Redaelli, Paiva and Teixeira, 2015). Likewise, **knowledge transfers** between producer and distributor have a positive effect on the supply chain performance, working both ways. By assimilating new knowledge, distributors can improve their service; and consequently, sales and producers are able to collect valuable information regarding the pet care market. (Redaelli, Paiva and Teixeira, 2015). To reassure these transfers, Naturchemis must schedule initial **training sessions and informal interactions** to guarantee distributors are completely comfortable when explaining, and advertising the product's advantages.

### NPV Analysis

To determine the **possible profitability** of the presented measures, the NPV was calculated, taking into account two different scenarios (Optimistic and Pessimistic). To obtain the total values, the B2C and B2B strategies were added.

For this calculation, some assumptions were made. One way to calculate the discount rate is by using the basic model of **Capital Market Pricing Model (CAPM)**, that tries to establish the link between systematic risk in the market and the expected return of an asset through the formula **Exp. Return = Risk-Free Rate + Beta\*(Mkt premium)**. This model expresses numerically the idea that if an asset is risky (high beta), then an investor requires a higher return and vice-versa. (DeMarzo, 2017). It is assumed that all the assumptions necessary to calculate through the CAPM are verified.

Analysing the model's component individually, the best way to access an approximate value for the **risk-free rate** is the Portuguese Government Bond rate given that Naturchemis operates in Portugal. Currently, the rate is close to zero if we consider a 5-year time-horizon (Bloomberg, 2017).

Furthermore, it is known historically the **Market Risk Premium** is between 4% and 7% (Damodaran, 2017). Additionally, it is necessary to compute the beta for the company. Given the nature of it, the market data is limited when the goal is to measure the risk of a start-up. The use of the competitor information as a benchmark procedure would be the correct method, and it would mitigate the lack of statistics. However, as mentioned before, the company's main competitors operating in Portugal are complex entities with diversified activities, which do not allow the development of a direct connection between them and Naturchemis. Moreover, to estimate a Beta, some **specific qualitative risk factors** were taking into consideration: **1)** it is a start-up company so the risk associated to the company is higher than what would be for a consolidated firm; **2)** the company presents low and variable revenues, which makes it unstable. These factors reflect the risk context and profile of the firm, making acceptable to introduce an additional risk to accommodate them. For that reason, it was assumed a **Beta higher than 1** and, thus, the **discount rate assumed was 10%**.

The tax rate applied to micro-enterprises is 17% for the first €15000 in taxable income and 21% for the remaining (PwC 2016). It is assumed that there is no inflation rate, since in Portugal the inflation rate is under 1%, and it is predicted to continue as such, with small rates.

In sight of all these calculations, the NPVs obtained were of 12 330,3€ (Optimistic Scenario) and 1 569,9€ (Pessimistic Scenario). Below the two NPVs calculated are presented. The more detailed table with the calculations is available on chapter VII of the Appendix.

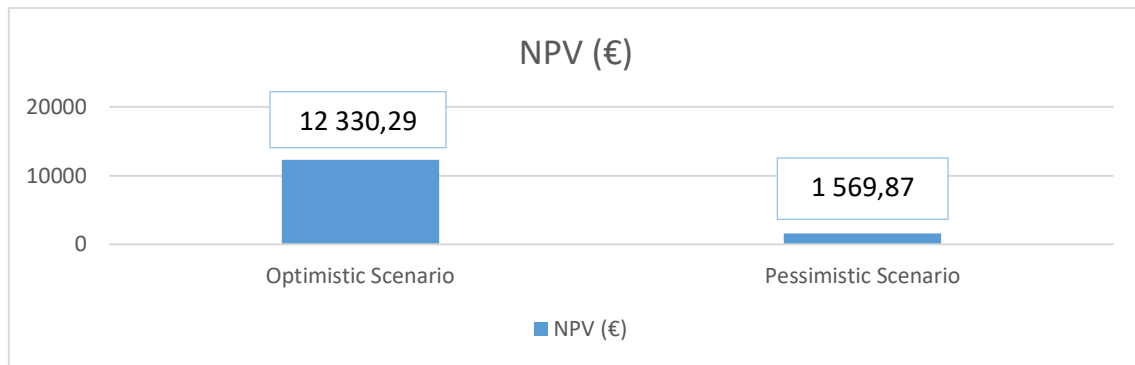


Table 7 – NPV Analysis

## Final Remarks

To this day Naturchemis hasn't invested on Naturneem, but is willing to retrieve some money off of its agricultural revenues, onto this product, intended for a high potential niche market.

Naturneem is a product which answers the demand of pet owners, who look for chemical free antiparasitic products. However pet owners are not aware of the qualities of neem oil, hence consumers must be educated about its advantages and properties. Additionally the development of good relationships between the company and distributors, which can advertise Naturneem to authority figures in this market, such as veterinary and pet shops, should also be taken into account. Especially since the advice given from specialists is still one of the biggest purchasing drives inside the pet care market.

With this in mind, two strategies were developed, one for B2C, in order to solve the problem of educating consumers about neem oil; and another for B2B, in order to solve the problem of Naturneem's low distribution. Optimistic and Pessimistic Scenarios were considered for each strategy, and from the analysis resulted the final decision of focusing on the B2C strategy. The product as it is being sold today lacks the support of veterinarians' advice, which can give credibility to the product. With this in mind, B2B should never be completely forgotten, and should be something Naturchemis can look into in the near future. Nonetheless when consumers are aware of a certain product and

want to make it available at various pet stores and pharmacies, they can create word of mouth, which can trigger a more developed B2B strategy. That is, consumers can become a gateway to bring awareness to vets.

At the point in which Naturchemis currently stands, in terms of Naturneem's sales, and taking into consideration Naturneem was only introduced to the market in 2014, there is a big probability of Naturchemis following the Pessimistic Scenario of B2B. Even though having a bigger distribution network is often better for a company, Naturchemis loses more profit margin. Moreover it is hard to negotiate with distributors, in a way that can be profitable for both parties. With this in mind, Naturchemis has more power on B2C, where it can control the way it sells and distributes its products. This conclusion follows the difference between the FCF of both Optimistic Scenarios, of 6 076€ (Table 3) and 1 752,12€ (Table 5).

As a way to encourage word of mouth and have a present role in advertisement, Naturneem is limited, as it may not write on its package that it is a “biological product”, nor can it have the Sativa stamp. This is not a food product, and thus cannot invoke this labelling by law. A way to curb this issue, and still be able to connect to potential consumers is for Naturneem to point out its properties through Facebook, and blog posts. All in all, knowing that **a)** e-commerce is rising, **b)** there is a trend for biological and sustainable products for pets, and **c)** pet humanization is increasing, it is believed Naturchemis can in fact increase its revenues with Naturneem by following the proposed B2C Strategy.

As future recommendations, Naturchemis should invest in a science-based report to provide evidence Naturneem works on pets' habitats, and that it is effective as well for other pets, such as guinea pigs, and horses. An added effort to create and maintain relationship with distributors should be in effect, knowing that distributors will be the

ultimate access for the product to receive credibility from vets. These last two recommendations can bring added value to the product, since they may empower the company to advertise all the product's properties on its package in the near future.

## Bibliography

1. "About the delivery system: Ad Auction FAQ", Facebook, [https://www.facebook.com/business/help/430291176997542?helpref=faq\\_content#](https://www.facebook.com/business/help/430291176997542?helpref=faq_content#) Retrieved on 28/11/2017
2. "Advertising Insights", Facebook, <https://www.facebook.com/iq/advertising-insights>
3. "Agriculture and Rural Development", European Commission Website, [https://ec.europa.eu/agriculture/organic/organic-farming/what-is-organic-farming/organic-certification\\_en](https://ec.europa.eu/agriculture/organic/organic-farming/what-is-organic-farming/organic-certification_en) Retrieved on 15/10/2017
4. Portuguese League of Animals' Rights website, <http://www.lpda.pt/legislacao/> Retrieved on 11/10/2017
5. "Buying Facebook Ads", <https://www.facebook.com/business/learn/how-much-facebook-ads-cost/> Retrieved on 28/11/2017
6. Chaffey, Dave; Ellis-Chadwick, Fiona, 2012, "Digital Marketing: strategy, implementation and practice", Harlow: Pearson
7. Cohen, Stephen, "The Growing Level of Environmental Awareness", December 29<sup>th</sup>2014, [https://www.huffingtonpost.com/steven-cohen/the-growing-level-of-environmental-awareness\\_b\\_6390054.html](https://www.huffingtonpost.com/steven-cohen/the-growing-level-of-environmental-awareness_b_6390054.html) Retrieved on 23/11/2017
8. Court, David; Elzinga, Dave; Miller, Susan; Jørgen Vetvik, Ole June 2009, McKinsey, <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-consumer-decision-journey> Retrieved on 05/12/2017
9. Damodaran, Aswath, "Annual Returns on Stock, T-Bonds, and T-Bills: 1928-Current", January 5<sup>th</sup> 2017 [http://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/datafile/histretSP.html](http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histretSP.html) Retrieved on 28/11/2017
10. Euromonitor International. 2014. "Addressing Food and Lifestyle: Innovations in Global Pet Care: February 2014." Retrieved from Passport database <http://www.portal.euromonitor.com> Retrieved on 15/10/2017

11. Euromonitor International. 2016. “Because They’re Worth It: Pet Care Global Overview: October 2016.” Retrieved from Passport database <http://www.portal.euromonitor.com> Retrieved on 15/10/2017
12. Euromonitor International. 2017. “Pet Care Global Industry Overview: September 2017.” Retrieved from Passport database <http://www.portal.euromonitor.com> Retrieved on 15/10/2017
13. Euromonitor International. 2017. “Pet care in Portugal: May 2017.” Retrieved from Passport database <http://www.portal.euromonitor.com> Retrieved on 15/10/2017
14. Euronews, “Start-up city: Why Lisbon is Luring Entrepreneurs”, November 11<sup>th</sup> 2015 <http://www.euronews.com/2015/11/13/start-up-city-why-lisbon-s-is-luring-entrepreneurs> Retrieved on 30/11/2017
15. Forbes Coaches Council, “Establishing an Emotional Connection with Customers? Here’s how to Adjust your Strategy”, November 28<sup>th</sup> 2016 <https://www.forbes.com/sites/forbescoachescouncil/2016/11/28/establishing-an-emotional-connection-with-customers-heres-how-to-adjust-your-strategy/#76f72f136c9a> Retrieved on 30/11/2017
16. Freiwald, Amber; Litster, Annette; and Weng, Hsin-Yi. 2014. “Survey to investigate pet ownership and attitudes to pet care in metropolitan Chicago dog and/or cat owners.”, Elsevier B.V., in *Preventive Veterinary Medicine* 115(3-4), 198-204
17. Gibbs, Samuel, “Mobile Web Browsing Overtakes Desktop for the First Time”, November 2<sup>nd</sup> 2016 <https://www.theguardian.com/technology/2016/nov/02/mobile-web-browsing-desktop-smartphones-tablets> Retrieved on 05/12/2017
18. Giglioti, R.; Forim, M.R.; Oliveira, H.N.; Chagas, A.C.S.; Ferrezini, J.; Brito, L.G.; Falcowski, T.O.R.S.; Albuquerque, L.G.; Oliveira, M.C.S. 2010. “In vitro acaricidal activity of neem (*Azadirachta indica*) seed extracts with known azadirachtin concentrations against *Rhipicephalus microplus*” *Veterinary Parasitology* Vol.181, 309-315
19. Global Gfk Survey. May 2016. “Pet Ownership”
20. “Glossary of Ad Terms”, Facebook, <https://www.facebook.com/business/help/683065845109838> Retrieved on 28/11/2017

21. INE Statistics Portugal. 2013. “Families in the Census of 2011: Diversity and Change: 20/11/2013.” Retrieved from Passport database <https://www.ine.pt/> Retrieved on 15/10/2017
22. INE Statistics Portugal. 2016. “Demographics Statistics in 2015: 2016 Edition.” Retrieved from Passport database <https://www.ine.pt/> Retrieved on 15/10/2017
23. INE Statistics Portugal. 2016. “Society of Information and Knowledge, Survey about the use of information and communication technologies by families: 21/11/2016.” Retrieved from Passport database <https://www.ine.pt/> Retrieved on 15/10/2017
24. INE Statistics Portugal. 2017. “Projection of Resident Population 2015-2080: 29/03/2017.” Retrieved from Passport database <https://www.ine.pt/> Retrieved on 15/10/2017
25. Kant, Rajni; Bhatt, R.M. 1994. “Field Evaluation of Mosquito Repellent Action of Neem Oil” *Indian Journal of Malariology* Vol.31, 122-125
26. Kotler, Philip; Keller, Kevin. 2012. “Marketing Management”. Harlow: Pearson Education Limited
27. Law 8/2017 taken from <https://dre.pt/home/-/dre/106549655/details/maximized>, Retrieved on 11/10/2017
28. Marktest Group. “Dogs and Cats Rising in Portuguese Homes”. April 11th 2017. <http://www.marktest.com/wap/a/n/id~220d.aspx> Retrieved on 15/10/2017
29. “MedVet” in DGAV (General Food and Veterinary Directorate) website in <http://medvet.dgav.pt/> Retrieved on 11/12/2017
30. MIT Experimental Learning in Collaboration with GetSmarter. “Future Commerce Explores Innovation in Financial Technology”, *MIT Technology Review* April 11th 2016, <https://www.technologyreview.com/s/601238/future-commerce-explores-innovation-in-financial-technology/> Retrieved on 18/10/2017
31. National Library of Medicine Hazardous Substances Data Bank, June 7<sup>th</sup> 2016, “Geraniol”, in <https://toxnet.nlm.nih.gov/cgi-bin/sis/search2/r?dbs+hsdb:@term+@DOCNO+484> Retrieved on 21/10/2017
32. “Neem Oil”, Google Trends, <https://trends.google.com/trends/explore> Retrieved on 05/12/2017



33. “New Legal Status for Animals in force on May the 1<sup>st</sup>”. Diário de Notícias, March 3rd 2017. <https://www.dn.pt/portugal/interior/novo-estatuto-juridico-dos-animais-entra-em-vigor-a-1-de-maio-5702575.html> Retrieved on 15/10/2017
34. Olivas, R; Bernabéu, R. 2012. “Men’s and women’s attitudes toward organic food consumption. A Spanish case study”. Spanish Journal of Agricultural Research 281-291
35. “People Insights”, Facebook, <https://www.facebook.com/iq/people-insights> Retrieved on 28/11/2017
36. Pordata. 2013. “Lisbon’s Portrait”. Retrieved from Passport database Pordata <https://www.pordata.pt> Retrieved on 15/10/2017
37. Pordata. 2016. “The Average Size of Private Households” Retrieved from Passport database Pordata <https://www.pordata.pt/> Retrieved on 15/10/2017
38. Pordata. 2017. “Purchasing Power per capita”. Retrieved from Passport database Pordata <https://www.pordata.pt> Retrieved on 15/10/2017
39. Porter, Michael E. 1998. “Competitive strategy: techniques for analysing industries and competitors”. *New York: Free Press*
40. Rampton, John, “5 Reasons You Shouldn’t Use AdWords”, July 4<sup>th</sup> 2014 <https://www.forbes.com/sites/johnrampton/2014/07/07/5-reasons-you-shouldnt-use-adwords/#1040de3839db> Retrieved on 30/11/2017
41. Redaelli, Emir José; Paiva, Ely Laureano; Teixeira, Rafael. 2015. “The relationship between manufacturer and distributors: knowledge transfer and performance”. *BAR - Brazilian Administration Review*. 12(4):421-441
42. Salesforce. 2014. “The Facebook Ads Benchmark Report” Retrieved from <https://www.slideshare.net/digitalinasia/salesforce-facebook-ads-benchmark-report> Retrieved on 11/11/2017
43. Sativa website, <http://www.sativa.pt> Retrieved on 15/10/2017
44. Sharma, V.P.; Dhiman, R.C. 1993. “Neem oil as a sand fly (Diptera: Psychodidae) repellent” *Journal of the American Mosquito Control Association*, 9(3), 364-366
45. Statista. 2016. “Household owning cats and dogs in Europe and Portugal” Retrieved from Passport database <https://fesrvsd.fe.unl.pt> Retrieved on 15/10/2017
46. Statista. 2016. “Number of pet cats in Portugal ” Retrieved from Passport database <https://fesrvsd.fe.unl.pt> Retrieved on 15/10/2017

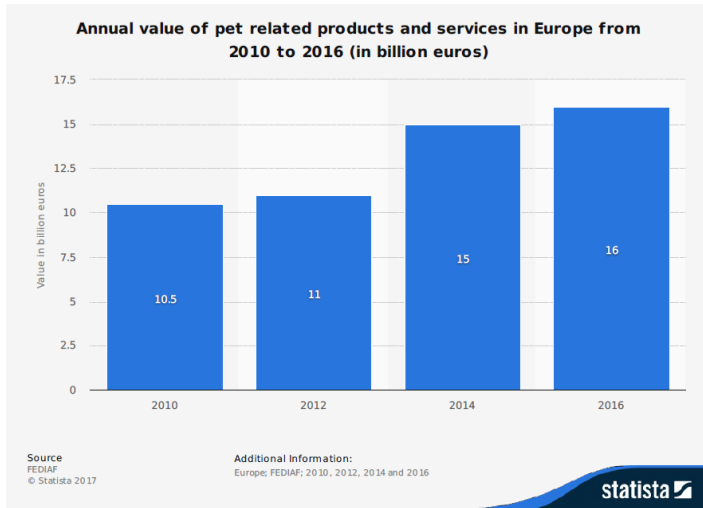


47. Statista. 2016. "Number of pet dogs in Portugal" Retrieved from Passport database <https://fesrvsd.fe.unl.pt> Retrieved on 15/10/2017
48. Statista. 2016. "Pet Market in Europe - Statistics & Facts - Estimated number of households owning at least one pet animal in Europe from 2010 to 2016 (in millions); Annual value of pet related products and services in Europe from 2010 to 2016 (in billion euros)", Retrieved from Passport database <https://fesrvsd.fe.unl.pt> Retrieved on 15/10/2017
49. Statista. 2016. "Retail chains number by sector in Portugal in 2016" Retrieved from Passport database <https://fesrvsd.fe.unl.pt> Retrieved on 15/10/2017
50. Statista. 2016. "Revenues of gardening and pet store retail". Retrieved from Passport database <https://fesrvsd.fe.unl.pt> Retrieved on 15/10/2017
51. "The European Union Inflation Calculators". EU Stat Bureau. <https://www.statbureau.org/en/european-union/inflation-calculators?dateBack=2012-12-1&dateTo=2017-10-1&amount=1> Retrieved on 11/11/2017
52. The Portuguese Tributary and Customs Authority. 2017. "Tax Code on the Income of Natural Persons of 2017"
53. Tiwari, Ruchi; Kumar Verma, Amit; Chakraborty, Sandip; Dhama, Kuldeep; Vir Singh, Shoor. 2013. "Neem (*Azadirachta indica*) and its Potential for Safeguarding Health of Animals and Humans: A Review" *Journal of Biological Sciences*
54. Tyson, Matthew, "Why Small Businesses Should Use Facebook Advertising", May 19th 2016, Huffington Post, [https://www.huffingtonpost.com/matthew-tyson/why-small-businesses-shou\\_b\\_10046180.html](https://www.huffingtonpost.com/matthew-tyson/why-small-businesses-shou_b_10046180.html) Retrieved on 05/12/2017
55. V.Maciél, Michelline; M.Morais, Selene; M.L.Bevilaqua, Claudia; A.Silva, Rafaella; S.Barros, Renata; N.Sousa, Raimundo; C.Sousa, Lindemberg; K.A.Machado, Lyeghyna; S.Brito, Edy; A.Souza-Neto, Manoel. 2009. "In vitro insecticidal activity of seed neem oil on *Lutzomyia longipalpis* (Diptera: Psychodidae)" *Rev. Bras. Parasitol. Vet., Jaboticabal*, v.19, n.1, 7-11
56. Viera, Ann; Schoenfeld, Regina; Kogan, Lori R.; Schoenfeld-Tacher, Regina; and Viera, Ann R. 2012. "The Internet and health information: Differences in pet owners based on age, gender, and education." Medical Library Association, in *Journal of the Medical Library Association*, 100 3, 197-204

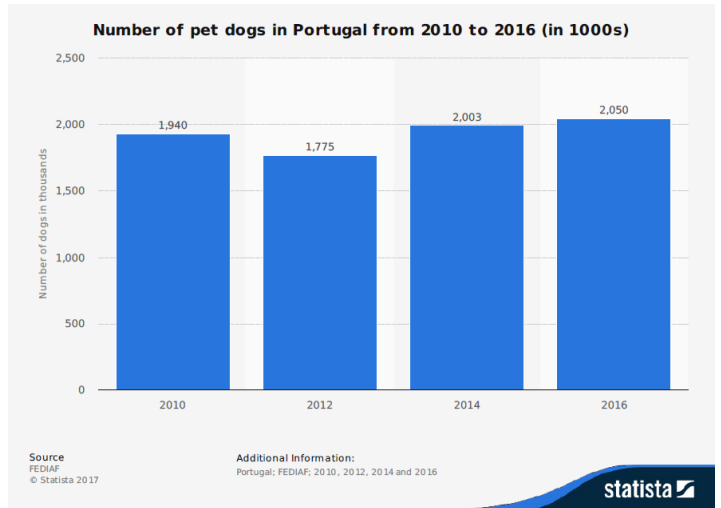
57. Weathersbee III, A.A.; McKenzie, C.L. 2001. "Effect of a neem bio pesticide on repellence, mortality, oviposition, and development of *Diaphorina Citri* (Homoptera: Psyllidae)" *USDA, ARS, U.S. Horticultural Research Laboratory*
58. Webb, E.C.; David, M. 2002. "The efficacy of neem seed extract (*Azadirachta Indica*) to control tick infestation in Tswana, Simmentaler and Brahman cattle" *South African Journal of Animal Science*

## Appendix

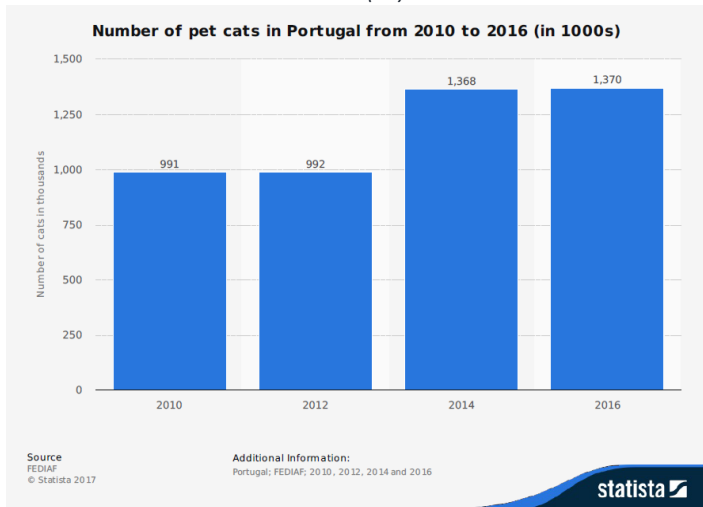
### I.Graphs



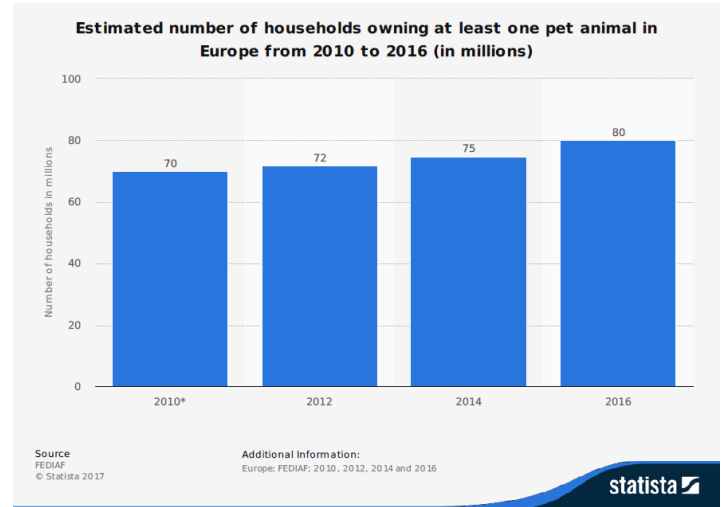
Graph 1 – Annual Value of pet related product and services in Europe 10-16(b€)



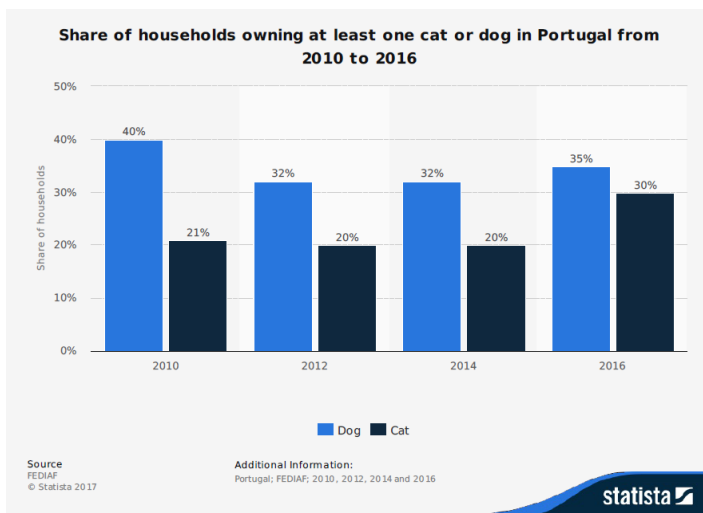
Graph 2 - # Pet dogs in Portugal 10-16



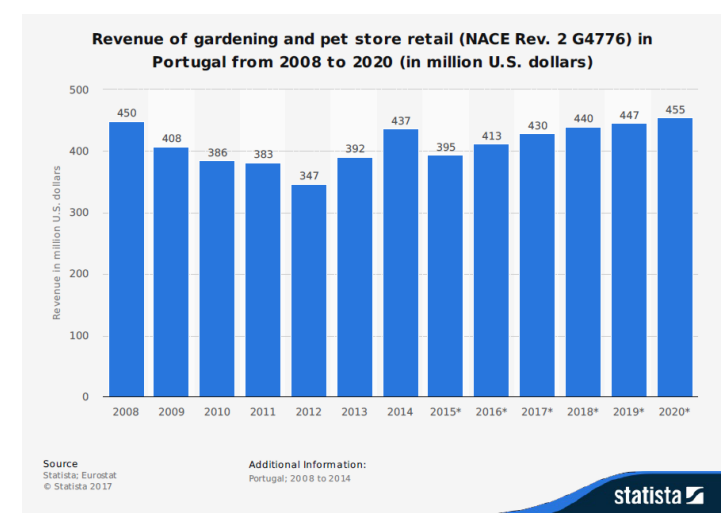
Graph 3 - # Pet cats in Portugal 10-16



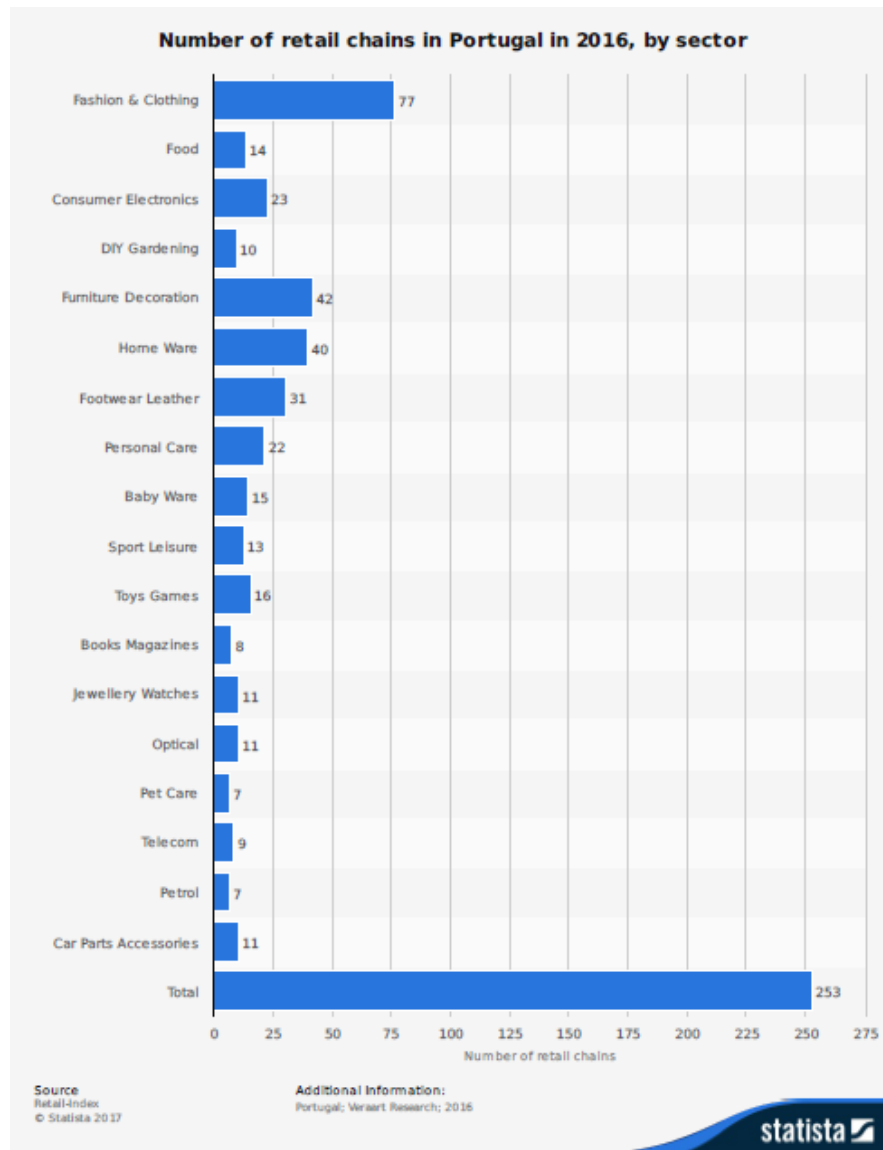
Graph 4 – Estimated # of households owning at least one pet animal in Europe 10-16



Graph 5 – Share of households owning at least one cat or dog in Portugal 10-16



Graph 6 – Revenue of gardening and pet share retail in Portugal 08-20



Graph 7 - # Retail chains in Portugal in 2016 by sector



Graph 8 – # Google Searches for “neem oil” in the last week of June, August, September, October 2017(Google Trends)

## II. Naturneem's Flyer



Figure 4 – Naturneem Flyer I



Figure 5 – Naturneem Flyer II

## III. Interviews' Guide

Good morning / afternoon / evening. My name is \_\_\_\_\_ and I'm currently writing my master's thesis at the NOVA School of Business and Economics. We are conducting a research about anti parasitics for pets available in the Portuguese market and we are analysing consumption behaviour when it comes to choosing an antiparasitic brand.

For this purpose, I would like to interview you for approximately 30 to 50 minutes, by means of a semi-structured interview, which means that I will ask you several questions, to which there are not right or wrong answers and you are free to say whatever comes to your mind on the subject. For the purpose of analysing our interviews later, I would like to record our conversation – would that be ok? It will remain anonymous and you will not be contacted further past this interview.

1. How long have you been practicing veterinary medicine?
2. Which are the biggest worries for pets, when it comes to parasites?
3. Which is the best way to prevent this problem?
4. What are the best products in the market you normally recommend your clients?
5. What are the criteria you use to make that decision? And what level of importance do you give to each of them?
6. Do you also take into account opinions from other veterinary doctors?
7. Has any client of yours not followed your recommendation, and by opting for a substitute increased the disease of their pet?
8. Is your veterinary clinic sponsored by any brand or company? If so, which ones? Do you use these same brands and/or services on a daily basis at your job of being a veterinary doctor?
9. How regularly do you see your patients? Do you receive more consults when a certain problem occurs, or is there any regularity, for example a monthly visit?
10. Is Naturneem a product with potential? Would you advise to your patients? Why? If you wouldn't, what would you change about the product in order to start using it?
11. What do you think is missing in the market, when it comes to products and ways of application of medication? We have already made some research and have arrived to the conclusion that on a global scale there have developed some trends: people search for more expensive and quality options every day (premiumization of the market); clients use the internet more often to purchase day-to-day goods; there is a growing worry for health and wellbeing of animals and a consequent search for alternative and healthier diets; the search for green products with an environmental and biological friendly sticker; a big “humanization” of pets from behalf of the owners. Do you see these type of trends in the Portuguese market? Would you like to add more trends you have seen recently? If you do not agree, what are for you the current trends of the Portuguese pet care market?
12. In your personal opinion, how do you think owners decide what products to buy? Do

they usually take your professional opinion into account, do they search for brands with reputation, do they rely on other owners' opinion, or do they use other types of reasoning entirely?

**13.** Do you consider it to be possible that a new Portuguese brand, with a biological and healthier product could enter the market? If so, in what way?

### **III.I Interviews' Answers**

#### Doctor Pedro Matias

1. This year it'll be 20 years I have been practicing veterinary medicine.
2. Parasites are divided between internal and external parasites. Where the internal house themselves inside a structure, organ or internal tissue, and the external intestate an organ or external tissue of an animal. For the owners I have no doubt their main issue concerns their pet having parasites. The most visible ones are fleas and ticks. The fact they find mobile structures in fresh feces is also a motive to find help with a vet. Every parasite which is not visible, by being internal and having a propagation done through microscopical elements do not create the same level of preoccupation to the owners, as the visibles do. The environment around the animal also influences the owner's preoccupation. I have noticed that in rural environmental the presence of parasites is considered a normal situation. With owners saying things such as "there is no dog without fleas ...". The closer the animals cohabit with their owners, the bigger the preoccupation for their health state. For me, as a clinic doctor all parasites have the same importance. Some produce worse situations than others, but all live with resources from our pets and can compromise their immune system to any other adversity. Moreover some parasites have the power to foster to humans, which can lead to a public health issue. In the area where I work, the leishmaniosis is the worse parasitic disease. Here, the cases of dirofilariasis are very few, and the ones we find are mostly of dogs which were exposed to other environments.
3. The way of preventing this type of issue depends on the parasite we are dealing with. But I have no doubt the more we are able to learn about parasites, their life cycles and their function, the easier it'll be to defeat them.
4. As we have discussed earlier, there are many types of parasites. Each group ends up having its own specifics. For that same reason it is hard to exist one sole medication or substance which is effective in every group. Nevertheless I believe Avermectinas are the substance group with the action spectre most ample when referring to antiparasitic



medication. Of course the best product(s) is something very subjective. Every medication has its limitations. There is medication which might be very effective in eliminating parasites in an animal, and cannot be used for another. For example, there are genetic sensibilities for some dogs to avermectinas, glucantime which is one of the best medication to fight and control leishmaniasis can be contraindicated in a patient which suffers of hepatic or severe renal disease. A medication that only exists in oral form may be very hard to apply on an animal which might not cooperate. It is up for the vet to help in the choice of the medication that adapt to the conditions of each animal. We must also remember the issue of some parasites which are able to resist the antiparasitics. There is a lot of talk around the resistance of bacteria to antibiotics, mas we sometimes forget the same happens to parasites. We all have the problem of the legal imposition, which obliges the use of some substances as antiparasitics, for some pets to be able to enter other countries.

5. The criteria are various. From efficiency, innocuity, price, difficulty in application/administration, the acceptability from the part of the animal. By order for importance, personally the most important is the relation between efficiency and risk, which has to be in favour of the animal, but also maintain a good efficiency. There is no use to have an innocuous product, which is not effective. Next, I believe price to be a more determining factor. A product which the animal has a good reaction to, is more effective than the others in the market, is accepted by owners even if it has a high price. And of course there is no use in buying a product which is very good but is hard to apply onto the animal.

6. When a colleague tells me he/she is using a certain product which satisfies the criteria we were just talking about, I will try to learn more about the product. Only after making some research will I make my own opinion about the product and see if I should recommend it to my patients.

7. When referring to antiparasitics some are of free sale, so what happens is that we might suggest one, and the patient opts for another. May it be because the price was more appealing, the one suggested was not in store so they brought another, or they were influenced by the salesperson. If you're asking me that this act augmented the disease in a significant way, no it did not. But many times the medication they end up choosing did not have the efficiency desired.

8. No. I am completely against that sort of partnerships. Health, just like any economic activity also comes with a business. We need to earn money to survive, just like anyone

else. But we sell our knowledge. Our opinion as a professional will have to exempt from economic interests. We suggest a certain treatment because we believe that, according to the issue at hand, it is the best alternative for the patient. I won't receive a bigger benefit if I suggest treatment A, or treatment B. I even believe that in cases where there are two options of effective and innocuous treatments, we should opt for the one of least value.

**9.** It varies. But I receive more appointments when and if any problem usually occurs.

**10.** When it comes to the efficiency of the product I cannot say much. I haven't tested it, and haven't seen any studies which prove its efficiency. However I found a study by UTAD which mentions Azadiractina acts principally through ingestion, having little action of contact. Moreover that this substance acts on the insect making it difficult for its normal process of gestation, which changes. This type of mechanism takes a longer time to eliminate the parasites. With Naturneem we are talking of a less toxic product for both the animal and the environment. However I have found reference in studies that indicate cases of vomits and hepatic toxicity in children when they digest high doses of the substance. We should check the price of 11,93€ for a bottle, which allows to treat a dog of 25 Kg once, with its competition. So by checking the internet we have found: Front Line Spray – 250ml – 23,16€, where 3/6ml should be used for 1 Kg. 1 bottle works for 41 to 83 Kg of a dog's weight; Advocate for dogs with 25 to 40 Kg – 25€ for a box with 3 units; Stronghold for dogs from 20 to 40 Kg – 30€ for a box with 3 units; Bravecto for dogs from 20 to 40€ - 25€ for a box with one pill, where one pill works for 3 months; Nexgard spectra for dogs from 15 to 30 Kg – 36€ for a box with 3 pills, where each pill works for one month; Seresto insecticide collar for dogs over 8 Kg – 26€. The way of applying by spray is not well tolerated by a lot of animals. And the right application on long hair or on animals with dense hair is normally difficult. With the flyer you have shown me, it reads “scientific studies prove the efficiency of Neem oil against *Lutzomyia longipalpis*, the main vector of Leishmaniasis”, but in Portugal the main vector for leishmaniasis is *Phlebotomus*. For all of these number of reasons I don't consider this product has any potential. The application through spray is much harder, takes longer and has a bigger risk of being applied incorrectly, when compared to spot-on systems, with pipettes. Nowadays there are products where you can literally see fleas falling minutes after the application of the medication. The medium price for monthly antiparasitic for a dog of around 25 Kg is around 10€ to 15€, which goes along the value you presented. As a suggestion I would say you could maybe increase the capacity of the bottle, as well as try to decrease the price used for each kilo of animal treated. Perhaps betting on a niche

of the market of clients who are against chemicals, or in favour of products with a natural origin.

**11.** Yes. I agree with the trends mentioned because I see them in the Portuguese market nowadays.

**12.** I believe that when fleas and ticks are detected, the owners go directly to a pet store or any store which sells this type of product, and normally buy the cheapest one available. When they have already tried some products and realized they did not clear the problem, only then would they ask for veterinary help. I also have the feeling that publicity campaigns strongly influence the owners' decision. Mainly the ones showed on television. I still find people who believe that if a product is on television that means it is good. They forget it's just another television ad, like many others. Television runs advertisements by who pays for that, not because there is a prior belief the products being advertised are good.

**13.** As we have discussed, I don't think this product a potential for the masses. In my opinion it can reach a niche market of people in favour of products of natural origin. Now the more extreme the potential client, the more they will be willing to accept this not so usual application. When I find people who tell me they are against the application of using chemicals, I tell them that with fleas there is a solution. They can always try to take them off one by one. Of course that after some time they end choosing a particular product so they don't have to take each flea out themselves. They will possibly use the product fewer times, but after a while, and if they see the fleas start to grow in number, they will despair and use any product regardless of it having chemicals or not.

#### Dr. Pedro Francisco

**1.** For around 30 years.

**2.** The biggest concerns are, without a doubt, fleas, ticks and mites. Mites usually concentrate themselves in the ears of the animals and some of them cause scabies. Then, there are the mosquitos that can spread some other diseases. This at an external level. If we think about internal parasites, the main ones are the nematodes, such as worms and tapeworms (intestinal parasites).

**3.** Focusing again on the external parasites, the best way of prevention is to use external antiparasitics. Pipettes are a great form of antiparasitics because they are put in an area of the body where the animal can't reach with its mouth and, therefore, cannot remove it. Also, some animals, especially cats, don't like sprays because they don't like the

sensation of having their body wet. Following this, I think the owners are very used to the pipettes, the so called spot-on products. Also, the ones who know about pills, tend to prefer them since they already know it's much easier. Most of those pills are eatable, meaning that the animals think they are eating a dog biscuit. Inevitable, this becomes extremely easy and fast to administer. However, it is important to mention that oral products do not have a repellent action, so mosquitos keep attacking, so to speak. Only spot-ons and collars work as repellents.

**4.** In this moment, when it comes to external antiparasitics, the most known ones are: Activyl, Frontline and Advantix. They all work as spot-ons, meaning that the owner only need to apply a few drops in the indicated spot. There are also external antiparasitics in the form of pills. They are recommended when the infestation is already so scattered that it is not possible to control with just spot-ons. Nonetheless, some people always choose the pill, no matter what. Monthly or by trimester, depending on the brand.

**5.** When labs launch new products, they already are approved to be used. That is the first criteria, of course, knowing to which animals it is targeted and that it works well and is safe for the animals. What happens to antiparasitics is that, over time, fleas, ticks and mosquitos start to gain resistance to them. Fleas do it very quickly. Sometimes we know the products are good, that they work very well but because of that resistance, owners start to complain and we, as vets, have to start looking for new options.

I must add here, that is not that uncommon for owners to apply wrongly the product and that's the reason why it doesn't work so well. If the dosage is not right, it won't work.

Also, the products often come to us through the qualified medical sales representatives that visit the clinics and present the products.

**6.** Speaking for myself, I discuss a lot with colleagues. We often clear doubts with each other.

**7.** Not that I know. Even if they didn't take my recommendation, I don't know of any problems.

**8.** I don't have any partnership or sponsorship. I think that no one has that to start with. In this clinic we sell or recommend the product that we really believe to be the best option. And by best option, I mean what it works better and is safer for the animal.

**9.** Depends a lot on the animal and on the owner. But, logically, when there is a problem, clients come more regularly.

**10.** It seems so! This product in particular will probably have adhesion from that group of people who people that natural options are very important and are already choosing

those when it comes to the pets' food. I am speaking mainly about dogs and cats. Nowadays, there are a lot of foods that were thought with that purpose. I am thinking about the case of food without cereals. Because dogs and cats are carnivore animals, people think they shouldn't eat cereals. So, this kind of owners that is already into this sort of distinguishes, will find this spray very interesting, since all the others use chemicals.

Now if you ask me if it will work outside this niche? Maybe! If we could have the certainty that the product works, maybe vets could start suggesting it. I would say that some kind of study would be necessary, or at least something that would prove that with the right regularity (that I don't know what it is because I never worked with it) the product works. Before being launched, clinical trials are made to understand which regularity should be applied.

But I haven't heard anything about Neem oil or this product. No one showed up saying they were using it. Like I said, for me proofs are essential. I can't use my patients as guinea pigs. The certainty that the product works and is safe must be very well demonstrated. Even though, this is not considered medication, I must always know.

Looking for the price, I don't think of it as expensive. There are sprays currently in the market much more expensive and that have chemicals.

Maybe the odour is the biggest if. Did the owner of the company smell other similar products? This smell is a bit strong. She should look for similar products that contain the oil and compare it. Sometimes, odour works as a repellent. If it is not the case, it should be better to find one that is more pleasant for the human nose, since a lot of people have the animals inside the house and can become a little uncomfortable. Giving the example of collars, you immediately smell it. Maybe that's why the most people chose the spot-ons.

**11.** I agree! Everyday, I see clients that treat their pets as a member of the family. And they are willing to spend more time, if we advise it.

Let me just say something about the internet. With food, for example, there are a lot of websites that sell food for dogs and cats of very well-known brands that we recommend. Those websites are able to sell it for prices that we cannot. So what some clients do is that they come here to look for our suggestion but then, after comparing prices, they buy it online (laughs). And with that, we cannot compete!

**12.** I feel like, in general, choices are made based on what vets say. But you know people, they don't always listen to us and prefer to ask a friend or a neighbour for their opinion.

Besides, there's a lot of advertisement in television and animals' magazines. Everything that is not considered medication, can be advertised. I'm thinking about Frontline. It's a very old product but thanks to advertisement is still for sale in a lot of different places. There's also the case of those people, who don't come for advice and just buy what they see or hear. Price may as well be a factor but, like I said it before, if the pet has some kind of problem and we suggest a more expensive product, people tend to accept it.

**13.** What I know that some smaller companies do when they are launching new products, it's that they look for distributors of veterinary products, where clinics go buy the products. Those distributors have medical sales representatives that go around the country to present new products to the clinics. This seems to be the best way to start. They are great in diffusing new products and in bringing them to our knowledge.

Advertisement still helps a lot to sell this kind of products to the public in general.

Another thing. In this kind of products we know the volume per each time you spray. And we need to know the right volume per kg. This package says 10ml per kg. But if the animal weights 50kg that means half a litre. That doesn't seem practical at all. And maybe 10ml in a very small dog is also too much.

#### Dr Susana Santos

**1.** For 22 years

**2.** Without a doubt, fleas and ticks. Essentially because pet owners can see it. Internal parasites can cause a lot of problems, but because they are not visible, only when the dog or the cat is very parasitized and it appears in faeces, people remember they exist.

Normally, when fleas show up, clients bring the pets immediately to the clinic. In the summer, fleas appear more often and, typically, when antiparasitics are not working anymore.

**3.** It is important to inform the owner since the beginning, when pets are still babies and come here for vaccination. Then, pet owners must oblige to the time indicated to apply the antiparasitic. A lot of times, people are sloppy. Products are not that cheap and people tend to apply the products when fleas are already there. At this point, it won't work as it should. The majority of antiparasitic treatments should be done monthly.

**4.** Spot-ons are very well known. But, at this time, pills are more used because they seem to be working better than spot-ons. Particularly, this summer and since last year, I have people complaining that spot-ons are not functioning anymore. Even the ones who do

everything right with pipettes and still, would spot fleas. Sometimes, when they come here, they are already looking for pills.

Recently, I have recommended pills for dogs. But for cats I continue to prefer spot-ons. It's easier to apply a spot-on on them than trying to give them a pill. Regarding brands, there are: Simparica, Breveto (each 3 months) and NexGard.

**5.** First of all, it has to work! We are the ones clients see and our reputations can be at stake. My biggest concern has been to explain to people that you still need to put some kind of spot-on since pills are not repellents. This way, they don't prevent when it comes to mosquitos and the diseases they spread.

In general, I always suggest what I feel is working better. And for now, I believe it is the pill. Here, price is also a crucial factor. There one specific pill that is working better than all the others but because the packages are for 6 months, people choose not to buy it. In the end, they probably spend the same if they buy one every month. But people don't want to spend more money at once.

**6.** Of course. Especially when things are not functioning the way they were supposed to. It is important to understand if other professionals are experiencing the same.

**7.** Not that I know of.

**8.** In the past there were bonus if you bought in higher volumes but current campaigns are very small and not worth it. No one ever offered me trips or something like that to sell a product (laughs). At most, they can offer a book or a ticket for a conference if you reach a certain plafond. But it is very rare. Brands or companies don't influence me at all in the moment I make my choice.

**9.** Yes! When pets are babies they have to come more often because of the vaccinations – 2 to 3 times in one month. Thereafter, the normal routine is to come twice a year. When pets are sick it's obvious that they come to visit us with more regularity.

**10.** The odour is a little strong! But I have clients here that really ask me about natural products and without chemicals. But does this product works well? It is necessary to have enough knowledge about it. Normally, when products are launched, studies “made in the field” were done before and are showed to us. We need to know if it was tested in animals and if it worked with no problems. And, obviously, need to be approved by Direcção Geral de Veterinária. If it works, even if it's not my first choice, when pet owners come looking for a healthier choice, I can always recommend it.

**11.** There's still consumers who can't buy expensive pet food, even when knowing that is healthier for their pet. There is much comparison of prices and they look it up online.



And that part we can't control. The online market is increasing, primarily among younger consumers. Most times, they buy the first time here but therefrom is always in the Internet.

**12.** Honestly, it depends on the type of person. Some pet owners are very careful in doing everything right and come here often and listen to our opinion. But then, there's the exactly opposite. People who choose to ask a friend or a neighbour instead of coming here. Sometimes it works fine, others don't.

Pet food quality is increasing, but also its price. Products are also sold in a lot of different places: pharmacy, supermarkets, etc. But on those 2 places, the products arrive when they are not working that well anymore. First, they come to the specialized channel.

Supermarkets, for example, are able to buy at a much cheaper price and on top of that, make 50% discount. IT's a place where people go daily and because the prices are so appellative, they don't ask our opinion.

**13.** There are distributors with sales representatives that present the products to us. That and television. Advertisement in the TV still has a great impact on people's' mind

#### **IV. Survey Questions**

**1.** What kind of pet do you have?

**2.** If you have more than one pet, please specify the amount you have. (example: 1 dog, 2 cats, 1 turtle)

**3.** Where do you base your opinion when it comes to products you buy for your pet?

- Vets
- Opinion/Advice from pet store clerk
- Opinion/Advice from people who also own pets
- Ratings & Reviews Online
- Search
- Brand reputation

**4.** What kind of antiparasitic do you use on your pet?

- Edible (pills, biscuit, etc.)
- External Use (ampules, collars, etc.)
- Both

**5.** How often do you use antiparasitics on your pet?

- Many times a month
- Monthly
- Quarterly



- Trimesterly
- Semesterly
- Yearly

**6.** How long does it take for you to apply the antiparasitic onto your pet?

- Less than 5 minutes
- 5-10 minutes
- 10-20 minutes
- 20-30 minutes
- 30-60 minutes

**7.** Would you be willing to spend more time applying the antiparasitic if it were healthier for your pet?

- Yes
- No

**8.** On average how much money do you spend per month on your pet?

- Less than 25€
- 25€-50€
- 50€-100€
- More than 100€

**9.** Do you try to find cheaper substitutes for the various products you buy for your pet?

- Yes
- No

**10.** From 1 to 5, how would you describe the price of antiparasitics in Portugal? (1 being very cheap, and 5 very expensive)

**11.** Imagine there is a biological antiparasitic, which is healthier and more environmentally sustainable, and has less chemicals than the already existing products on the market.

**11.1** Would you be willing to buy this product if it were more expensive than the antiparasitic you currently use?

- Yes
- No

**11.2** If this product was a spray, whose application is based on massaging your pet, does your opinion change from the answer you wrote above?

- Yes
- No

**11.3** If you answered no to any of the previous questions, please choose the reason why you wouldn't choose this product:

- I am satisfied with the product I currently use
- I don't give much attention to biological values when buying products for my pet
- Difficult in application
- I do not like sprays
- I am not interested in a more expensive substitute
- I have a monthly budget I cannot go over
- Other (please specify)

**11.4** How much money would you be willing to spend on this antiparasite?

- Less than 10€
- 10€-15€
- 15€-20€
- 20€-30€
- More than 30€

**12.** Do you consider you live a healthy lifestyle that takes into account the origin and the ingredients that make up for the products you use on a daily basis?

- Yes
- No

**13.** If you answered yes, do you have the same worries when it comes to the products you buy for your pet?

- Yes
- No

**14.** Please select the below options regarding how much money you spent on each option

- Vet Visits
- Toys
- Dietary Supplements
- Medication
- Pet Care
- Food

**15.** Where do you buy products related to your pet's health?

- Pet Store
- Vet
- Online Store

- Super/Hypermarket
- Pharmacy
- Other (please specify)

16. What is your nationality?

17. How old are you?

18. How many people live in your home?

19. How much is your monthly net income?

- Less than 500€
- 500€-1000€
- 1000€-2000€
- 2000€-3000€
- 3000€-5000€
- More than 5000€

#### IV. I Survey's Answers

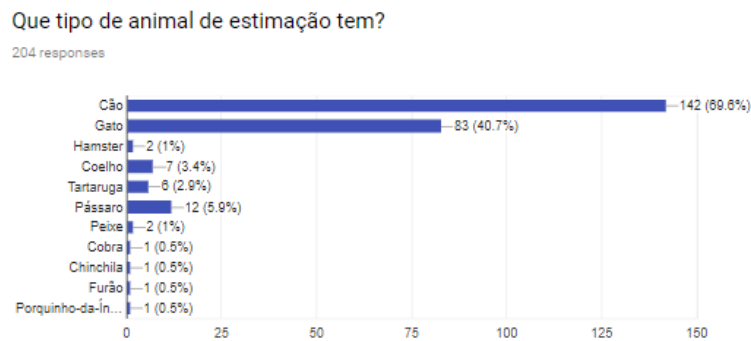


Figure 6 - Question 1

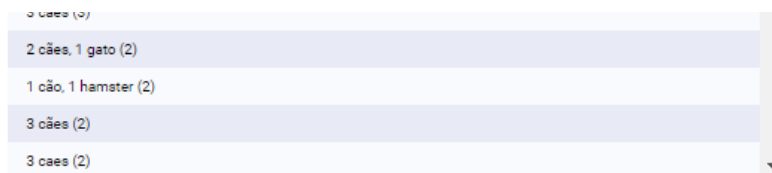


Figure 7 – Question 2

Em que se baseia a sua opinião relativamente aos produtos que compra para o seu animal de estimação?

204 responses

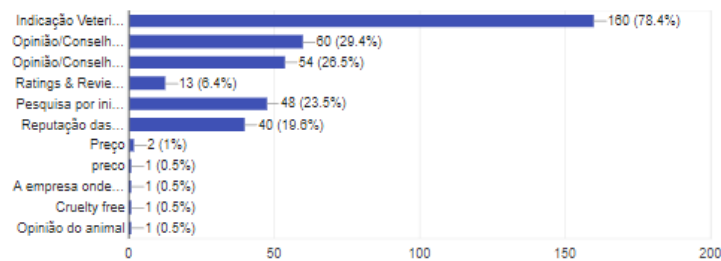


Figure 8 – Question 3

Que tipo de anti-parasita usa?

204 responses

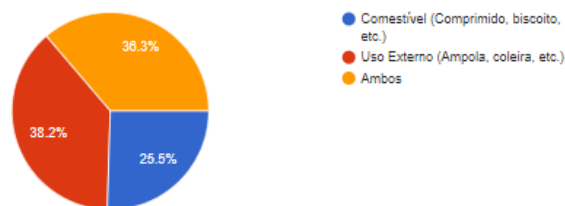


Figure 9 – Question 4

Com que frequência faz o tratamento anti-parasitário ao seu animal doméstico?

204 responses

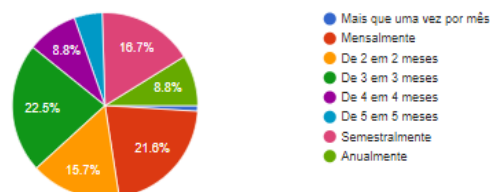


Figure 10 – Question 5

Quanto tempo demora a aplicar o anti-parasitário no seu animal de estimação?

204 responses

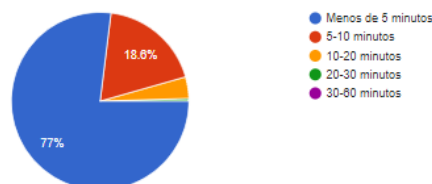


Figure 11 – Question 6

Estaria disposto a gastar mais tempo se o anti-parasitário que usasse fosse mais saudável para o seu animal?

204 responses

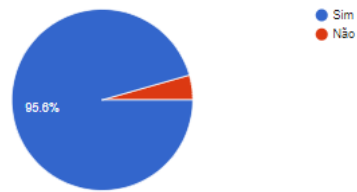


Figure 12 – Question 7

Em média, quanto dinheiro gasta por mês no seu animal de estimação?

204 responses

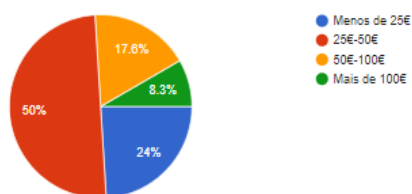


Figure 13 – Question 8

Tenta encontrar substitutos mais baratos para os produtos que usa no seu animal de estimação?

204 responses

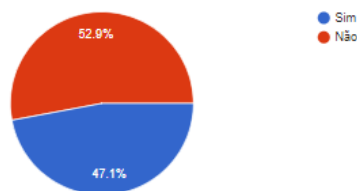


Figure 14 – Question 9

De 1 a 5, como descreveria o preço dos anti-parasitários em Portugal? (Sendo 1 Muito Barato e 5 Muito Caro)

204 responses

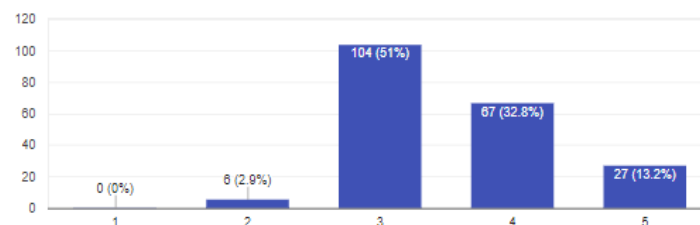


Figure 15 – Question 10

Imagine que existe um anti-parasitário com certificado biológico, mais saudável, sustentável para o ambiente, e com menos químicos que os produtos actualmente existentes no mercado.

Estaria disposto a comprá-lo se fosse mais caro que o anti-parasitário que usa actualmente?

204 responses

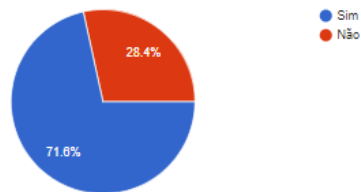


Figure 16 – Question 11.1

Se este produto fosse um spray, que tivesse de aplicar no seu animal de estimação ao massajá-lo, manteria a sua resposta à questão anterior?

204 responses

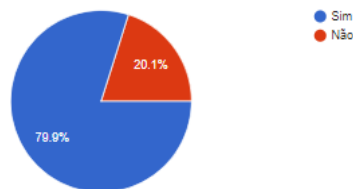


Figure 17 – Question 11.2

Se respondeu que não a alguma das perguntas anteriores, por favor assinala a razão pela qual não escolheria este produto.

87 responses

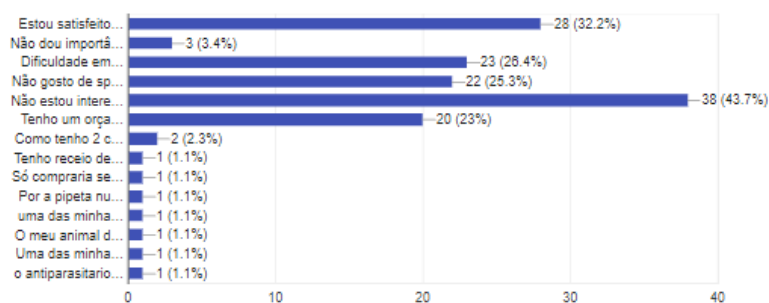


Figure 18 – Question 11.3

Quanto dinheiro estaria disposto a pagar por este anti-parasitário?

204 responses

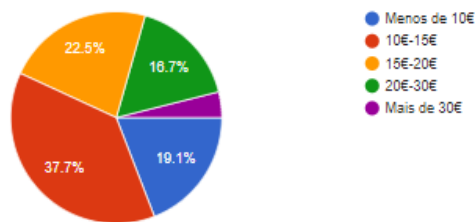


Figure 19 – Question 11.4

Considera que vive um estilo de vida saudável, que tem em conta a origem e os ingredientes dos produtos que utiliza diariamente?

204 responses

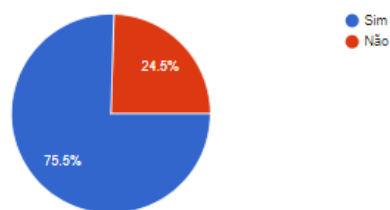


Figure 20 – Question 12

Se respondeu que sim, tem as mesmas preocupações no que diz respeito aos produtos que compra para o seu animal de estimação?

170 responses

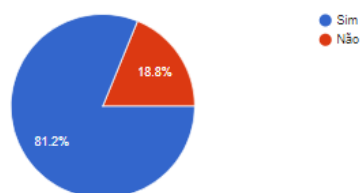


Figure 21 – Question 13

Por favor seleccione as seguintes opções, consoante o dinheiro gasto nas mesmas.

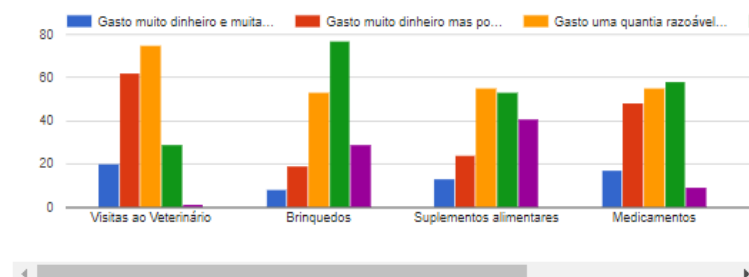


Figure 22 – Question 14

Onde é que compra os produtos relacionados com a saúde do seu animal de estimação?

204 responses

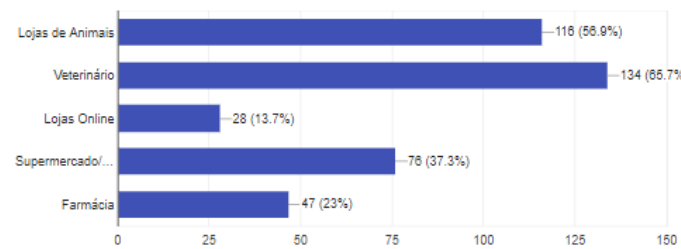


Figure 23 – Question 15

Qual é a sua nacionalidade?

204 responses

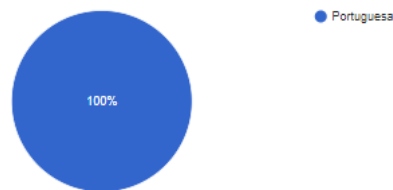


Figure 24 – Question 16

Qual é a sua idade?

200 responses

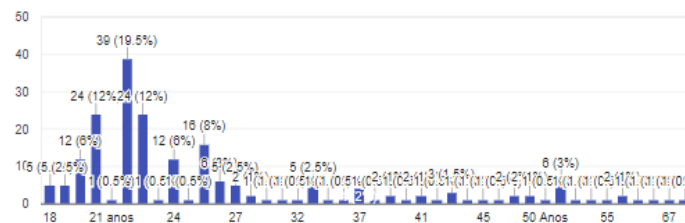


Figure 25 – Question 17

O seu agregado familiar é composto por quantas pessoas?

204 responses

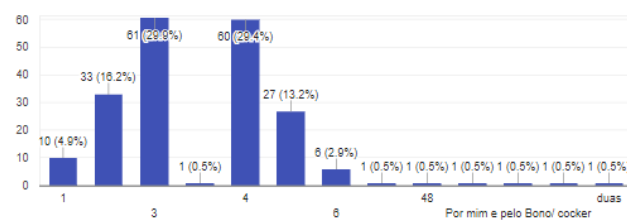


Figure 26 – Question 18



Qual é o rendimento líquido mensal do seu agregado familiar?  
204 responses

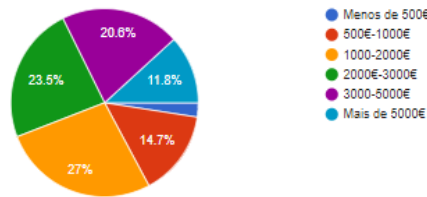


Figure 27 – Question 19

## V. Already Existing Clients' Interview Excerpts

The company shared data concerning already existing clients of Naturneem. In order to learn about the product from the side of the consumer, we have contacted them either via phone, or email. Below are some excerpts of the interviews we developed.

**Client A** “I bought this product for my cat. It lives in an apartment so normally does not catch fleas. It was a onetime occurrence. I found the product easy to use. I bought it because the lady at the pet store recommended it to me because it was 100% biological, with natural ingredients.”

**Client B** “I used this product on my guinea pigs. I researched about it online and used only one bottle, and it was more than enough. It worked and I was very satisfied with the result. Moreover it was easy to use, the instructions were great and explained what I needed to do. Since guinea pigs aren't that big, I ended up having some of the product left. Already knowing about this product, and the fact it can also be used on agriculture, I left the rest of the product to my mother-in-law who owns a garden. I really liked the product and I think what it lacks is publicity.”

**Client C** “I already knew about neem oil and searched online if there were any available in Portugal. Owning 3 shar-peis I find my dogs part of the family as well, and see my family as a group of 6 people because of them. Shar-peis do not bathe because of their characteristic skin, so I use Naturneem on a daily basis on them. Everyday I put the product on them and I don't care about wasting a lot of time or not, I love my dogs and I love taking care of them. I do not think it has a strong smell, and when my dogs smell it, they actually come up to me because they enjoy the process. I have been using it for 6 months now and have seen it is effective, having developed a sort of protective layer. The only bad thing about it is the fact that it is expensive, but I think that is normal in this type of products. But seen that I have 3 dogs and use it on a daily basis I have to buy more.”

**Client D** “My dog had fleas and I had already gone to my veterinary at Praia das Maças. She prescribed me a pill for the problem, but my dog was still scratching. I went to the vet again and the doctor checked his body for fleas and didn’t find any. However since the dog was still scratching, she prescribed me Naturneem. I had never heard about it, but she told me it was 100% biological and very natural. She said she had read about neem oil and had seen some studies on the subject, so I agreed to buy it. I had to purchase it online, and used a full bottle. My dog stopped scratching so it definitely had a positive effect on it. I cannot tell you it took all the fleas, because I thought the fleas were already gone, but after this the dog stopped scratching. So there was definitely something that we were missing, but this product took care of it.”

**Distributor Cruz Amarela** “I found out about the product in a fair in Batalha, related with garden products. As a distributor for pet products, we were looking forward to have a biological product. We tried more complete products but it’s very difficult to legalize products in Portugal. I really like Naturneem. It has a small problems with ticks though - it only works about 80%. But the product has difficulties in entering the market. Pet owners are not used to work with natural products and are very impatient (which is a problem because those products take longer to act). Usually, when there is a plague, there is the need to use pills, but if people use antiparasitics before as a preventive measure, these product works very well. If you use since the beginning it can also be put in the places where we know the animals will be, for example, carpets. I can give you my personal experience. I have a baby dog and since the first week and applied the product in the places she is. I never had a problem with mosquitos or fleas. For the future, I would suggest publications in pet and natural products magazines. I know that it can be used both in dogs and cats but would be nice if it was possible to recommend for other animals and, so, as my second suggestion I would say to expand the range of the product and make it for birds or hamsters or both.

I think it can be helpful for you two to know that there are several products like this in Europe (that can actually work better) but they are not exactly legal in Portugal. The distributors try to tell us that they are in accordance with the European directive (which is probably true in all cases) but we cannot sell them just because of that. They all need to be legal in Portugal specifically.”

## VI. Naturneem Unitary Cost

Volume (ml)	250 ml
%	5%
Neem [€/l]	0,21 €
Distilled Water [€/l]	0,05 €
Packaging	0,70 €
Label	0,33 €
<b>Direct Costs</b>	<b>1,29 €</b>
<b>Indirect Costs</b>	<b>1,50 €</b>
<b>Total Costs</b>	<b>2,79 €</b>

Table 8 – Naturneem Unitary Cost

## VII. NPV Calculation Table

	0	1	2	3	4
OPTIMISTIC	2018	2019	2020	2021	2022
Revenues		5 347,67 €	8 909,68 €	13 169,36 €	11 253,48 €
Costs		1 717,57 €	2 868,71 €	4 007,62 €	3 425,36 €
<b>EBITDA</b>		<b>3 630,10 €</b>	<b>6 040,97 €</b>	<b>9 161,74 €</b>	<b>7 828,12 €</b>
Depreciations		0	0	0	0
<b>EBIT</b>		<b>3 630,10 €</b>	<b>6 040,97 €</b>	<b>9 161,74 €</b>	<b>7 828,12 €</b>
Taxes (17%)		617,12 €	1 026,96 €	1 557,50 €	1 330,78 €
<b>NOPLAT</b>		<b>3 012,98 €</b>	<b>5 014,01 €</b>	<b>7 604,24 €</b>	<b>6 497,34 €</b>
Depreciations		0	0	0	0
<b>Operating CF</b>		<b>3 012,98 €</b>	<b>5 014,01 €</b>	<b>7 604,24 €</b>	<b>6 497,34 €</b>
CAPEX	-605,00 €	-175,00 €	-350,00 €	-350,00 €	
<b>FCF</b>	<b>-605,00 €</b>	<b>2 837,98 €</b>	<b>4 664,01 €</b>	<b>7 254,24 €</b>	<b>6 497,34 €</b>

NPV

12330,29833€

Table 9 – Optimistic Scenario NPV

	0	1	2	3	4
PESSIMISTIC	2018	2019	2020	2021	2022
Revenues		2 225,43 €	1 514,59 €	1 245,54 €	1 100,73 €
Costs		711,39 €	540,13 €	451,70 €	402,48 €
<b>EBITDA</b>		<b>1 514,04 €</b>	<b>974,45 €</b>	<b>793,85 €</b>	<b>698,24 €</b>
Depreciations		0	0	0	0
<b>EBIT</b>		<b>1 514,04 €</b>	<b>974,45 €</b>	<b>793,85 €</b>	<b>698,24 €</b>
Taxes (17%)		257,39 €	165,66 €	134,95 €	118,70 €
<b>NOPLAT</b>		<b>1 256,65 €</b>	<b>808,80 €</b>	<b>658,89 €</b>	<b>579,54 €</b>
Depreciations		0	0	0	0
<b>Operating CF</b>		<b>1 256,65 €</b>	<b>808,80 €</b>	<b>658,89 €</b>	<b>579,54 €</b>
CAPEX	-605,00 €	-45,00 €	-45,00 €	-45,00 €	
<b>FCF</b>	<b>-605,00 €</b>	<b>1 211,65 €</b>	<b>763,80 €</b>	<b>613,89 €</b>	<b>579,54 €</b>

NPV

1569,874266€

Table 10 – Pessimistic Scenario NPV



Individual Part – Sofia de Sousa Bernardo Soares | 3441

The work project was divided in three main parts: (1) external and internal analysis; (2) strategies; (3) and financial analysis. In each phase we separated the work. In the end of each part we always met in order to discuss all the findings and decide the next steps. Madalena focused more on the internal analysis and in anything related with the B2C strategy, whereas, I focused on the external analysis and in anything linked with the B2B segment. In the beginning, the interview guide and the survey were done together as well as the final NPV analysis. The connecting of every part to make a final version and its complete review were also done as a group.

For me, the biggest challenges were associated with lack of information and making our differences in schedules function as one. It was difficult to find insights into our market, forcing our research to be very qualitative and obtained mainly through interviews. Not only did we have to contact vets, but also distributors and current clients. It was time consuming and we had to adjust our work plan accordingly. Moreover, making our schedules work together was, at first, a challenge but actually became a huge lesson. Initially, they were not coordinated and we had to compromise a lot. But that turned out to be great for our work since, for every meeting, we would invariably show up ready and with ideas to move forward with the work. I definitely felt that we were both willing to make things work out and, when that happens in a group, everything is possible.

As a valuable learning, I have to point out the importance of having an open mind. Sometimes, great ideas on paper may not function in the real world and working so close with a real life start-up was essential to understand that. However, it doesn't mean that we should give up. Rather, we should gather as much information as possible and progress by listening to all parts involved.

Individual Part – Madalena de Oliveira Capelo Coelho Gil | 3533

The process of getting to know Naturchemis, and also being part of FLAD's program Connect to Success was very helpful in order to have a first gasp of what the business world is.

After choosing the path of our project – writing a marketing plan for Naturneem –, we divided the work between ourselves, where Sofia had a bigger role regarding the external analysis and B2B Strategy, and I with the internal analysis and B2C strategy. Conceição was very helpful in providing us with the information of the company, but we were lacking data for the pet care market in Portugal, which led us to create a survey, and perform multiple interviews with veterinaries and past consumers. These last two processes were done by the two of us, and at first glance, we saw it as a barrier to continuing the rest of the work, when in fact it was very useful, in order to understand the mind of the our target consumer. The final part of our report, regarding the financial and NPV analysis was done together, so we could both understand the logic behind each strategy, and find a good solution for Naturchemis.

By being a two people group, the work dynamic of this project was very healthy in the way that we both had the opportunity to discuss the project and any ideas we had between ourselves. This sort of dialogue was very important in finding the right strategies, and discovering and solving errors throughout the project, which made it possible for us to develop a more complete marketing plan. The fact we were only two people was also helpful when it came to time management. Having different schedules, we were able to find a good communication strategy between ourselves, which led us to have more productive meetings, and helped us realise how sometimes there has to be some compromises in the workplace, in order to get something done.

By the end of the project I learned communication is the key to any successful working experience, and it is through it we are able to reach our goals, and even higher objectives we were unaware of in the beginning, if it weren't for the help of our colleagues.

Hopefully my future work experience will also be based on a good communication and learning base, as it was in this project.