

INSTITUTO UNIVERSITÁRIO DE LISBOA

# **Business Plan for Establishing a Phyto Nutraceuticals Company**

David Silva

Master in Business Management,

Supervisor:

Maria José Sousa, PhD, Assistant Professor ISCTE – University Institute of Lisbon

September, 2021



September, 2021



# Ackowledgements

Não poderia começar esta secção de outra forma que não ao agradecer aos meus pais. Foi graças a eles que chegou este dia: graças a colocarem-me em primeiro lugar, sem pensar em barreiras e dificuldades; foram eles que acreditaram nas minhas capacidades; e foram eles que me motivaram ao longo deste período.

Um agradecimento especial direcionado à minha orientadora, Maria José Sousa, pela simpatia, pela predisposição imediata de me ajudar e por me ter guiado e ajudado na conclusão desta tese.

Também gostaria de agradecer ao Filipe Fernandes por acreditar em mim, na minha visão e me acolher no seu projeto, estando sempre disponível para me ouvir e para me ajudar em tudo o que precisei. Ao Marco Simões por me mostrar que era possível e me ajudar de todas as maneiras imagináveis. À minha irmã por toda a ajuda ao longo deste percurso e por acreditar em mim. Ao Vítor Hugo que apesar de longe esteve sempre à distância de um clique.

Por fim, mas não menos importante, à Mariana, pois foi ela que me ouviu durante este longo período. Foi ela que motivou diariamente, que me aconselhou e que me "puxou as orelhas" quando eu mais precisei.

Obrigado.

#### Resumo

O dia-a-dia da população tem vindo a alterar nos últimos anos. Com cada vez menos tempo para os pormenores, a alimentação tornou-se um tópico onde muitos falham devido ou ao pouco conhecimento ou à falta de tempo. A verdade é que isso agravou problemas como a Obesidade, através de um mercado de oferta de junk food, cada vez mais procurada em dias de pouco tempo ou pouca vontade/conhecimento para cozinhar pratos mais equilibrados.

É certo que a medicina convencional apresenta várias opções (e comprovadas) quanto a alguns problemas originados pelos maus hábitos alimentares, contudo, muitas das vezes acabam por ser dispendiosos e/ou munidos de vários compostos químicos. Contudo, a população apresenta-se cada vez mais disposta a procurar produtos substitutos de origem natura, não só de forma a protegerem-se contra produtos químicos, mas também de forma a preservarem o meio em que se inserem.

Desta forma, a presente dissertação apresenta o plano de negócios para uma nova empresa de produtos naturais com origem em plantas (fitonutracêuticos), que visa não só melhorar o dia-a-dia da população em diversas adversidades e momentos de vida.

**Palavras-chave:** plano de negócios, nutracêuticos, fitonutracêuticos, medicina, Obesidade, estilo de vida, hábitos alimentares

# **Abstract**

The daily life of the population has been changing in recent years. With less and less time for details, food has become a topic where many fail due to either lack of knowledge or lack of time. The truth is that this has aggravated problems such as obesity, through a market of junk food, increasingly searched in days of little time or little desire/knowledge to cook more balanced dishes.

It is true that conventional medicine has several options (and proven) for some problems caused by bad eating habits, however, they often end up being expensive and/or provided with various chemical compounds. However, the population is increasingly willing to look for substitute products of natural origin, not only to protect themselves against chemical products, but also to preserve the environment in which they live.

Thus, this dissertation presents the business plan for a new company of natural products from plants (phyto nutraceuticals), which aims not to improve the daily lives of the population in various adversities and moments of life.

**Keywords:** business plan, nutraceuticals, phyto nutraceuticals, medicine, Obesity, lifestyle, eating habits

#### **Index** Ackowledgements \_\_\_\_\_i Resumo Abstract .......v 2. Description of the promoter and the proposed business.......3 2.1 2.2 3. 3.1 3.1.1.1 Classification and Categories \_\_\_\_\_\_\_\_6 3.1.1.2 Nutraceutics Market 6 3.2 4. Objectives and Methodology ......11 5. 5.1 5.1.1 5.1.1.1 5.1.1.2 5.1.1.3 5.1.1.4 5.2 5.2.1 5.2.2 5.3 5.3.1 5.4 Firm's analysis \_\_\_\_\_\_\_\_21 5.5 5.5.1 6. Business Plan \_\_\_\_\_\_24 6.1 Business Strategy 24 6.1.1 6.1.2 Strategic objectives 24 6.2 Business model 25 6.3 6.4

6.4.1	Segmentation, Targeting and Positioning	26
6.4.2	Marketing-Mix	27
6.4.2.1	Product	27
6.4.2.2	Price	28
6.4.2.3	Place	
6.4.2.4	Promotion	
6.4.3	Sales funnel	
•	rational Plan	
6.5.1	Organizational structure	
6.5.2	Human resources management	
6.5.3	Operational and technical resources	33
6.5.4	Implementation and control strategy	33
7. Fir	nancial Viability Plan	36
7.1	Assumptions	36
7.2	Financial projections	36
	Financial vianility analysis	
	nclusion	
	ferences	
	Anexes	
Anne	x A – Marketing-Mix	48
Anne	x B – Sales Quantities	48
Anne	x C – Monthly Operating Costs	48
Anne	x D – Staff number	49
List of Ta	ables	
	Direct competitors for each of the company's produtcts	
	Price comparison between competitors and the company's products  Firm SWOT Analysis	
	Strategic objectives	
	Description of each Acusport products	
	Pricing of Acusport products	
	Types of Partnerships	
	Sales funnel	
	Business timeline for 5 years	
	Project assumptions	
	Investment per year	
	Sales revenue	
	Annual operating costs	
	Staff expenses Working Capital Needs	
	Income provisional statement	
	Project's Cash-flow	
	Froject's Cash-now  Freasury Balance	
	Financial Indicator of Viability	
	•	

Table 10.1 Quantity projections	48
Table 10.2 Monthly operating costs	48
Table 10.3 Annual staff number	49
List of Figures	
Figure 3.1 U.S dietary supplements market size	
Figure 3.2 Examples of phyto nutraceuticals	
Figure 4.1 Process flow of the Methodology of the thesis	11
Figure 5.1 PEST Analysis.	
Figure 5.2 Global nutraceuticals market share	
Figure 5.3 Global vitamins & dietary supplements market	
Figure 5.4 Vitamins & dietary supplements growth by country	
Figure 5.5 Retail trade volume.	
Figure 5.6 Pharmacy retail sell-out in opening 28 weeks of 2020	
Figure 5.7 Dietary supplements by positioning	
Figure 5.8 Growth of Immunity - Positioned Supplements and Cough and Cold Remed	
2020	
Figure 6.1 Business Model	
Figure 6.2 Color variations in logo and visual content	
Figure 6.3 Acusport Products	
Figure 6.4 Organizational structure in year 0	
Figure 6.5 organizational structure in year 5 of activity	
Figure 10.1 Marketing-Mix	48

### 1. Executive Summary

The thesis presented here is shown as a business plan for a start-up of plant protection products, which aims to improve the general population, especially in more complicated phases, such as the example of one of the products - Neuro Mais - which is aids to help with cognitive improvement, reduction of tiredness and fatigue, among other benefits.

This new company - Acusport - is the result of an analysis of the world trend of looking for products of natural origin and that is an aid in combating external factors and that, simultaneously, are a second option when it comes to prices practiced by current medicine and industry pharmaceutical.

Despite being a very competitive market and where the main players are already large-volume companies (which makes the entry of new products difficult), this business plan, based on marketing promoted by digital means (organically and paid) and by very encouraging partnerships with pharmacies, parapharmacies and nutraceutical centers.

As for the operational side of the business, some initial difficulties are expected due to the low budget invested. However, speeds are optimal with the same budget and with two people working full time on the project, as is the CEO's initial idea. Despite the effort being quite large, most of the advantages help from external partners. However, the company expects to grow at a good pace in the initial years, always maintaining a matrix of high communication and inter-project agility, always having a flexible and dynamic culture in terms of streamlining between office and home office.

The creation of a small office was also created which, despite its small facilities, will be ideal for holding institutional and corporate meetings.

The advantages in terms of the project's return are quite reasonable, however, if it is possible to make a greater financial effort using other shareholders or a bank loan, the company has a chance of having an even greater return.

Ideally, after the first five years, a company chosen to set up a small laboratory to research and develop new products without having to ask outside suppliers.

# 2. Description of the promoter and the proposed business

### 2.1 Promoter

David Silva, a master's student that helps a new company in the Phyto Nutraceuticals market, developed this thesis to plan and study the viability of a new company in this big industry. In his conception, the medicinal potential of nature is enormous, and its elements are increasingly used for the benefit of human health, replacing, often, some toxic elements and with metabolic overloads.

The student aims to make available to the consumer some natural solutions and, simultaneously, introduce a new company to the market, with the ability to improve the lives of its customers, positively impacting society.

# 2.2 Proposed business

This thesis was developed in the form of a business plan to study the viability of a new company. This company is called Acusport and is based on a business inserted in the Nutraceutical Industry (in this case, with specificity in Phyto Nutraceuticals).

This industry, despite existing for many years, has gained considerable prominence in the market, mainly due to the increase in the search for healthier lifestyles, but also as a response to fighting some diseases. Junk food consumption has increased, leading to a higher number of diseases caused by malnutrition, such as Obesity (recognized as a global problem). However, solutions for modern medicine are often too expensive and hence the population has been looking for more attractive substitute products.

In this way, in addition to the growth in demand worldwide, Acusport presents products aimed to the needs of the body, for the benefit of health and well-being, bringing nature closer to the human being.

Despite the existence of some potentially substitute products that have been on the market for some time, having more notoriety, Acusport, and as this business plan will show, presents products that are differentiated by their greater complexity and with a price/cost very attractive.

Thus, the company is ready to be a new player in the Nutraceutical market, armed with: (1) experience acquired over twenty years of accompanying people in favor of natural health; (2) legal and scientific conditions concerning the most demanding manufacturing standards; (3) a multidisciplinary team; (4) new products that will soon enter the market.

### 3. Literature Review

Since the industrial revolution, the daily life of the population, in general, has changed a lot: The Junk Food market has been growing in recent years and, with it, has brought more calories, more salt, greater concentration of saturated fat, among other elements harmful to a balanced diet. This type of meal has become popular worldwide, changing the lifestyle of many people and taking them one step closer to reaching serious illnesses such as heart disease.

However, although conventional medicine presents several solutions for the treatment of these diseases, consumers are now looking for solutions with fewer side effects, fewer chemicals involved, and more economically viable. Therefore, the Nutraceutical Industry has been gaining a favourite prominence, presenting solutions of natural origin that are very appealing to consumers.

This market, despite not being recent, has gained considerable prominence. Scientifically, there has been increasing medical and nutritional evidence supporting nutraceuticals, especially phyto pharmaceuticals, as enhancers of consumer health benefits (Dillard & Bruce German, 2000).

This literature review focuses on, firstly, explaining the concept of nutraceuticals, with special emphasis on phyto nutraceuticals. Then, given its importance today and as an answer to consumer doubts, I will explain the context of the Regulation of Plant Protection in the European Union, with a focus on Portugal. To finish this chapter, I will conceptualize the Business Plan in the following topics: Marketing Strategy, Marketing Plan, Investment and Financial Plan.

# 3.1 The Phyto Nutraceuticals Context

# 3.1.1 Nutraceuticals Concept

The term "nutraceutical" was first introduced in 1989 by Stephen Defelice, founder, and chairman of the *Foundation for Innovation in Medicine*. According to the author, "a nutraceutical is any substance that is a food (or part of a food) and provides medical or health benefits, including the prevention and treatment of disease" (DeFelice, 1995). This type of product can also range from isolated nutrients, dietary supplements, herbal products and processed foods (cereals, soups and beverages) (DeFelice, 1995). We can thus affirm that the term "nutraceutical" was forged through the combination of "nutrition" and "pharmaceutical". The concept was then initiated through research in some European countries (UK, Germany and France) which concluded that diet is better evaluated by the consumer than exercise or hereditary factors when aiming for good health (Pandey et al., 2010).

Later, the concept was changed by the Ministry of Health of Canada, which defines nutraceutical as "a product isolated or purified from food, usually sold in the form of a drug not associated with food (tablets, powders) and which has been shown to have a physiological benefit (...) It also provides benefit against chronic diseases." (Bull et al., 2000).

However, this concept is still within a gray area and a new approach to food science was recently proposed, and the area of possible use was defined as "beyond the diet, but before the drugs" (Santini & Novellino, 2014)

Nutritional Therapy is a health system that uses dietary or nutraceutical therapies as complementary therapies. This type of therapy argues that food can not only be a source of nutrients and energy but can also have medicinal benefits. According to this theory of therapy, they use nutraceuticals to detoxify the body, preventing vitamin and mineral deficiencies and restoring healthy digestion and eating habits. (Chauhan et al., 2013).

Analysing the nutraceuticals segment, we observe that they can cover most therapeutic areas, such as antiarthritic, colds and cough, sleep disorders, digestion and prevention of some types of cancer, osteoporosis, blood pressure, cholesterol control, analgesics, depression and diabetes (Pandey et al., 2010).

There is still an important distinction to be made between functional food and nutraceuticals. When food is being cooked or prepared using, with or without knowledge of how or why it is being used, the food is now called "functional food". This designation portrays the function of food in what concerns the nutrition of the body, through vitamins, fats, proteins, carbohydrates, etc. On the other hand, when functional food helps in the prevention and/or treatment of diseases and/or disorders (in addition to anaemia), it is called nutraceutical. On the other hand, nutraceuticals differ from dietary supplements in that the former not only complement the diet but also help to prevent and/or treat

diseases and/or disorders (Kalra, 2003). However, and as we will see later, many countries group nutraceuticals in the group of nutritional supplements, and the legislation is identical in both cases, as is the case in Portugal and other EU countries.

# 3.1.1.1 Classification and Categories

As for their classification, and more broadly, we can define nutraceuticals in terms of their bases on natural sources, pharmacological conditions, or based on their chemical constitutions. Thus: (1) as to its natural source, we can verify that it comes from plants, animals, minerals or even microbes; (2) can also be classified according to chemical groupings (Chauhan et al., 2013).

We can further categorize nutraceuticals. The most accepted and mentioned perspective in the work of Baby Chauhan, Gopal Kumar, Nazia Kalam and Shahid H. Ansari (Kalia, 2005, *Cit. in* Chauhan et al., 2013) refers to a triple categorization of nutraceuticals:

- Substances with established nutritional functions (vitamins, minerals, amino acids, and fatty acids)
- Herbs or botanicals
- Reagents derived from other sources that serve specific functions (pyruvate, chondroitin sulfate, steroid hormone precursors), such as sports nutrition, weight loss supplements, fortified conventional foods, and meal replacements (dietary supplements)

We can also observe the sources of nutraceuticals, all of which are natural, and categorize them as follows:

- 1. Dietary fiber
- 2. Probiotics
- 3. Prebiotics
- 4. Polyunsaturated fatty acids
- 5. Antioxidant Vitamins
- 6. Polyphenols
- 7. Seasonings

# 3.1.1.2 Nutraceutics Market

According to GVR (*Grand View Research*), one of the leading consulting and market research companies, the nutraceutical market was valued at \$412.7 trillion in 2020 and is estimated to expand 8.3% by 2027. In the report that the company published (figure 3.1) we can also observe global market share and by region in 2019.



U.S. dietary supplements market size, by product, 2016 - 2027 (USD Billion)

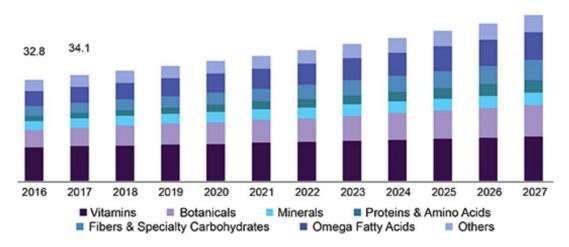


Figure 3.1 U. S dietary supplements market size (source: Grand View Research)

In the same report, we can see that Asia Pacific has the 2nd largest market, accounting for 29.4% of total revenues in 2019. Developments in Europe will be notorious in the years to come, especially in countries such as Germany, France, Italy, Great Britain and Spain. This growth involves, above all, the increase in protein consumption, leading to the promotion of amino acids in the production of dietary supplements. Multivitamins (especially vitamin B and C) will also have high adoption rate, mostly due to adoption by the working population and bodybuilders.

# 3.1.2 Phyto Nutraceuticals

We can affirm that "phyto nutraceuticals" belong to the grouping of nutraceuticals. However, the term "phyto nutraceuticals" refers to nutrients derived from plants (or only part of them) and which contain specific biological activities that promote human health and/or prevent or treat diseases (Bland, 1996).

This concept covers more specifically nutrients derived from agricultural plants as well as natural plant products that contain biological activity, compared to the concepts of "functional food", "dietary supplements" and "nutraceuticals" (Zhao, 2011).

Distinctively, the concept of "phytochemicals" refers to all chemicals derived from plants (whatever their biological activity); as does the concept of "phytomedicine" which depicts only natural products from plants that have potent biological activity and can serve for drug development. Therefore, we can affirm that the phyto nutraceuticals include all the great plant nutrients (vitamins, proteins, lipids and minerals) as well as less known natural plant products (Zhao, 2007).

Plant-derived nutraceuticals or functional foods have been receiving increased prominence due to their safety and potential nutritional and therapeutic effects (Mohammad & Imran, 2019). Some known examples of phyto nutraceuticals are explained in figure 3.2(Mohammad & Imran, 2019)

The history of phyto nutraceuticals dates to the past and the use of plants (or part of plants), herbs or even extracts used by our ancestors. Compared to herbal remedies, phytotherapy is based on recent research in the fields of phytochemistry, nutrition and medicine (Zhao, 2011).

No.	Plant species	Common name	Diseases for which Used Form of use	Form of use
1	Agave americana	Rambans	Antiseptic, diurectic	Leaves sap
3	Allium sativum	Garlic	Chemopreventation, cancer, diabetes,	Fresh or dried cloves,capsules,
			arteriosclerosis, lowering cholesterol,	odorlesstablets, tinctures, aged
			respiratory infections	garlic extracts
3	Aloe vera	Ghritkumari	First-degree burns, cuts and abrasions,	Sunscreen, skin creams, lotions,
			wound healing, anthelmint, antiulcer	oralintake
4	Avena sativa	Oat straw	Diuresis, cholesterol control, reducing	Dried herb; capsules,tablets, tinctures
			inflammation, itching	
5	Amaranthus spp.	Chaulai	Cardiovascular disease	oil from seeds
6	Andrographis	Kalmegha	Bacillary dysentery, respiratory tract	Shoot powder
	paniculata		Infection	
7	Artemisia annua	Artemisia	Fever, upperrespiratory tractinfections	Shoot decoction
8	Asparagus spp.	Shatavari	Tonic, astringent	Roots
9	Borago officinalis	Bugloss,	Skin care, anti-inflammatory,	Herb, Leaves and Flowers
			bloodpurifier.	
10	Boswellia serrata	Salai guggal	Asthma, anti-arthritic	Gum-resin
11	Bauhinia purpuria	Rakta kanchan	Catarrh, boil, glandular swelling	Roots and leaves
12	Berberis asiatica	Barberry	Roots are used intreating ulcers, urethral	Roots and berries
			discharges, ophthalmia, jaundice, fevers	
			etc fruit iscooling and laxative	
13	Calendula spp	Pot marigold	Anti-inflammatory, may inhibit HIV,	Floweral decoction for wound healing
			antibacterial, antitumor. Skin and cancer	
			treatments.	
14	Capsicum annum	Red pepper	Anti-arthritic, antioxidant action,	Fresh and dried fruit,powder
			stimulant, nutrition, rubefacient, nutrition	
15	Cassia senna	Senna	Constipation	Dried leaf, /pods
16	Centella asiatica	Gotu kola	Improving memory, sedative,	Herb, powdered,capsules, tablets,
			stressreduction, imunostimulant, venous	tinctures, teas
			insufficiency, wound	
			healing pregnancy related stretch	
			marks,venous tonic	
17	Curcuma longa	Turmeric	Reducinginflammation, indigestion,	Dried root, whole, Powdered
			antioxidant, liverproblem	
18	Commiphora	Guggal	Cardioprotective, antiinflammatory,	Gum –resin
	Wightii		rheumatic deseases	
19	Cymbopogon	Lemon grass	Stomachache, expelling gas	Dried leaf, cut andsifted, tea
	Citrates	_		
20	Echinacea	Echinacea	Cold, flu, minorinfections,	Dried whole herb orroot, capsules,
				11.1. (4.1.4
	angustifolia,		immunostimulant	expressed juice of fresh flowering plants

Figure 3.2 Examples of phyto nutraceuticals (source: Mohammad & Imran, 2019)

The study of phytonutrients is relatively new, at around two decades old, and the scientific community estimates that only 10% of phytonutrients have been discovered and identified (Iturrioz, 2002). This fact is very important because it shows that the market still has much room for growth in the research and development of new products, as well as the fact that there are few players competing.

As an example of scientific evidence of the benefits of natural products, in 2015 the Nobel Assembly at the Karolinska Institute (Stockholm, Sweden) awarded the Nobel Prize in Physiology or Medicine to discoveries of new therapies based on natural products in the fight against lymphatic filariasis and onchocerciasis and malaria.

This Nobel Prize is awarded to scientists who not only make revolutionary discoveries but also new therapies (Efferth et al., 2015)

# 3.2 Regulamentations of Phyto nutraceuticals products in the European Union

The European Union (EU) has no regulatory framework for nutraceuticals. There are several rules that must be applied and which depend mainly on the origin of the food (Coppens et al., 2006). The laws associated with nutraceuticals are still too diverse and may vary between countries according to traditional, cultural and historical differences. If we look at legislation relating to phyto nutraceuticals alone, we can see that there is not much legislative consistency for some botanicals across the EU member states. An example of this is the fact that some botanicals are sold as food or food

supplements, while in other countries within the EU they are seen as medicinal herbs (which in some countries are even immediately considered as pharmaceuticals) (Gulati & Berry, 2006).

Although many countries are trying to draft new laws or complementary regulations, there is still some way to go (Zhao, 2007). Legislation on the marketing of functional foods in the EU was in the legislative process, with a focus on the safety of nutritional/phytotherapeutic products, based on risk analysis (Coppens et al., 2006). In Europe, scientific risk assessment is done through the European Food Safety Authority (EFSA) and risk management is done by the European Commission (Zhao, 2007). EFSA is based on scientific opinion and ends up being a support platform for the European Council, European Parliament and EU Member States. (Sattigere et al., 2018)

According to the study by Gulati and Ottaway (Gulati & Berry, 2006), within the European medicine's legislation, the definition of nutraceutical is made through two reasons:

- 1. If it is presented for the prevention, treatment or cure of a condition or disease, or
- 2. If it can be administered with the aim of restoring, correcting or modifying physiological functions in humans

Products that fall within either category will be considered medical devices.

In legislative terms, "Directive 2004/24/EC of the European Parliament and of the European Council applies to pharmaceutical legislation for traditional herbal medicinal products. (...) To be able to market a medical product, the company must submit documents including the results of physicochemical, biological or microbiological tests, as well as pharmacological and toxicological tests and clinical trials for authorization" (Koch et al., 2014). The author also mentions that as for the use of botanicals and derivatives in food preparation they do not need any authorization, having only to comply with the requirements related to food legislation (Regulation (EC) No. 178/2002) (European Food Safety Authority, 2002). In addition, the registration of traditional herbal medicinal products is governed by Article 39 (Medicines Act) AMG.

Regulation (EC) 178/2002 lays down the general principles and standards of food law. It also establishes the European Food Safety Authority and lays down food safety procedures to ensure that foodstuffs are safe (e.g. permitted ingredients, manufacturing processes, food contact materials, etc.).

In Portugal, we can frame nutraceuticals in the laws concerning Food Supplements through Directive 2002/46, which defines food supplements. Then the Decree-Law (DL) 136/2003 which transposes the previous Directive and, subsequently, DL 118/2015 which amends and rewrites DL 136/2003. (Official Journal of the European Communities, 2002).

More recently, the Decree-Law No. 118/2015 of the Ministry of Agriculture and the Sea (Diário da República Eletrónico, 2015) has important articles for the definition of food supplements (art. 3), quantities of vitamins and minerals (art. 4 and 5), labelling (art. 6), marketing and notification (art. 9), among others. In this DL we observe the ingredients that can be incorporated in food supplements, where some nutraceuticals mentioned in annex I and II of Regulation 1170/2009 are found, as well as the vegetable and animal species presented. There are also some substances prohibited in REG 1925/2006 - Annex III such as Ephedra leaves and Cabinda bark.

In this DL from the Ministry of Agriculture and Sea there is also the definition of "novel foods" referred to as foods not widely used for human consumption in the EU until 15 May 1997. These "novel foods" can be innovative or newly produced foods, foods from new production processes and foods traditionally consumed outside the EU - which can be observed in the Implementing Regulation 2017/2470 (Direito da União Europeia, 2017).

Also, in Regulation 2015/2283 we can observe some improvements noted. Among them the streamlining and centralization in the COM regarding authorization procedures; efficiency and transparency have been improved through the shortening of deadlines for safety risk assessment and the authorization procedure and the safety assessment will be faster and more proportionate for food coming from third countries with significant consumption of such products.

In 2005, according to Article 1 of Decree-Law 134/2005 (Diário da República Eletrónico, 2005) of 16 August 2005, the government considered that MNSRMs (except for those which are reimbursed) could be sold outside pharmacies, thus liberalizing the market for these medicines. In this way, medicines that can be marketed and sold outside of pharmacies have a free price regime (Ministério da Saúde, 2005).

# 4. Objectives and Methodology

The main objective of this thesis is to develop a business plan related to the establishment of a new phyto nutraceutical company. In this way, the development of this business plan also has its objectives:

- To make an internal and external analysis of the factors that impact the business in order to understand its competitive position in the market;
- Outline the strategy that the business will follow to implement, manage and control solutions;
- Assess the financial viability and sustainability of the business.

Considering the objectives mentioned, figure 4.1 represents the process flow of the methodology for this thesis, based on the model described in the book "Guide to Business Planning" by Graham Friend and Stefan Zehle (2004) (Friend & Zehle, 2004), with minor changes necessary and adapted to the type of business.

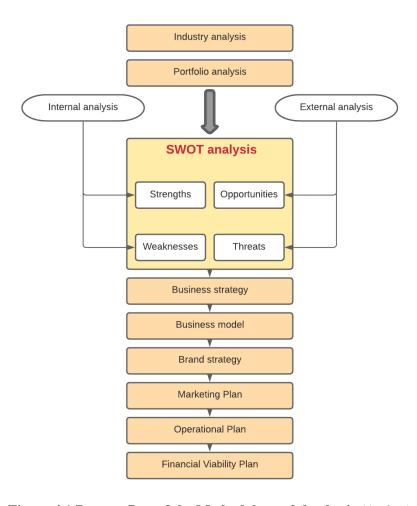


Figure 4.1 Process flow of the Methodology of the thesis (Author)

Through this model it is possible to design a viable and innovative strategy, based on data not only from the business structure but also from the surrounding environment, making decision-making a more complete and reliable process. Each company will have a similar process despite the different areas of activity.

Since this is a medium-long term strategy, there will obviously be small changes to be made due to internal and/or external changes, in order to achieve the strategic objectives.

First, it is important to understand the (1) external environment, i.e., what surrounds the company and the factors in which the company will not have so much control, such as government forces, change in consumer attitude, new technologies, etc (Friend & Zehle, 2004). Thus, the methodology applied and suggested by the author was a PEST analysis, which corresponds to a tool for analysing the company's Political, Economic, Sociocultural and Technological environment.

Next, in order to outline a strategic plan for the company, it is necessary to understand the (2) industry (industry analysis) associated with the business, such as the forces acting in that industry. Data such as size and trends of the industry and who the major competitors are will also be analyzed and understood (Friend & Zehle, 2004). In this analysis, I also encompassed the observation of the product portfolio of the main competitors that will undoubtedly have an impact on the strategy to be defined by Acusport. This point is crucial in that we will observe some attributes of the competing products (prices, advantages, strong points) but also their communication strategies and their distribution channels.

After the analysis of the environment that surrounds the company, it is important (3) to analyse what the company is (company analysis), that is, its resources and how they are used to obtain competitive advantages (Friend & Zehle, 2004). That is, in this topic it will be relevant to do a resource audit of operations, human resources (HR), organizational and financial resources.

Later, after all the internal and external analysis, it is important to do a (4) competitive analysis through the SWOT (strengths, weaknesses, opportunities, threats) method. This tool, according to Friend & Zehle (2004) will allow an adaptation of the company's resources to the needs of the external environment, so that a sustainable competitive advantage can be obtained.

Having analyzed the company's positioning in the market, we will now move on to the company's strategic planning. As for the (5) company's strategy, it will be represented in its Vision and Mission, having as an aid the Values in which they introduce as company guides. For Mirvis et al. (2010), the Mission is directly related to the company's purpose, that is, a premise that answers the "why" the company exists. The Vision is treated by the above-mentioned author as the company's goal; what the company sees as the future as well as what it intends to create. As for the Values, they are the way to answer the "how", that is, the way to act in order to achieve the stated vision.

Next, the (6) business model represents all the areas involved in this project. To facilitate its visualization and perception, an illustration was made that summarizes all the relevant aspects that, in addition, will be described throughout this thesis.

The (7) brand strategy is portrayed in the business identity. Thus, the format of the logo and the entire graphic identity was designed to give the brand a unique positioning that is easily recognized by the consumer.

Regarding (8) marketing planning, Friend & Zehle (2004) propose 4 main pillars:

- Market segmentation;
- Targeting;
- Marketing Mix (Annex A);
- Positioning

Subsequently, (9) operational planning explains how resources are allocated, using the inputs from marketing planning. This planning also presents the description of the organizational structure, human resources, salaries, among other operational cost objects (Friend & Zehle, 2004).

Finally, a (10) financial feasibility plan was made to ascertain whether the project would be a viable investment in order to succeed in the market.

# 5. Situational Analysis

In order to develop as complete a strategic plan as possible, it is necessary to have a complete overview not only of the business itself, but also of what surrounds it and what can influence the company's success. In this chapter I will present, in an angular view, the entire internal and external situation of the company.

First, the analysis will focus on the external environment at the macro and micro level, presenting opportunities and weaknesses. Next, I will present an analysis focused on the internal environment, showing what the company's strengths and weaknesses are.

With this analysis, I will get an overview of what the company's current competitive strength is and how the internal and external environment interact. This approach not only focuses on the present, but also on what the future may look like, and therefore it is imperative that as thorough a study as possible be done to identify all future influences on the business.

# 5.1 Environmental analysis

As I said earlier, the analysis of the external environment would be done at both the macro and micro level. At the macro level, the main influencer is the external environment. For this analysis, I will use the PEST analysis tool with a focus on the nutraceuticals and supplements market.

### **5.1.1 PEST Analysis**

The PEST analysis is considered one of the most important when launching new products or defining new strategies. This analysis comprises four important macro-fields (represented in figure 5.1), each corresponding to a letter of the acronym: Political, Economic, Social, Technology, Environmental and Legal.

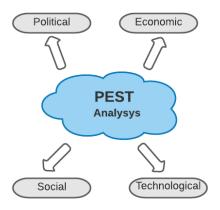


Figure 5.1 PEST Analysis (Author)

#### **5.1.1.1** Political factors

In political terms, the focus will be on the country where the company is registered, namely Portugal.

The political system in Portugal is a parliamentary-presidential mixed government, where the President has the title of "Head of State" and the government has the executive role. The President appoints the Prime Minister and the government is accountable to the President and Parliament. The country is going through a pre-electoral phase, with the current leadership of António Costa, leader of the PS and supported in Parliament by the Socialist, Communist and Left blocs.

However, lately some very important cases have come to light, leading to the perception and suspicion of corruption, personal favouritism and lack of transparency. In 2020, the Corruption Perception Index

(CPI) placed Portugal in 33rd place, down three places from the previous study and having reached the lowest score ever (Transparency International, 2020).

In terms of taxation, Portuguese VAT is 23% and a rate of 21% is applied to the total value of taxable income (PwC, 2021). However, this rate has a lower threshold for some goods and services called the "reduced VAT rate". This reduced rate applies at 6% in the case of mainland Portugal, and pharmaceuticals and the like are provided by law to benefit from this same rate. However, in the case of nutraceuticals and supplements, a 23% taxation is foreseen.

Companies resident in Portugal (mainland) are taxed on all their worldwide income. On this amount realized by the companies, the rate becomes IRC (Corporate Income Tax) of 21%. In addition to this, SMEs (small and medium enterprises) benefit from a rate of 12.5% on the first 25,000 euros, being subject to the normal rate of IRC on the surplus (PwC, 2020).

In Portugal, trademarks and copyrights work well. On the other hand, patent registration is a difficult process for small companies, which hinders innovation initiatives that are not dependent on funds.

In terms of public spending, Portugal records 8664.80 million euros in January 2021 (Trading Economics, 2021). This spending refers to goods and services and helps to understand the influence on economic growth.

#### **5.1.1.2** Economic factors

Considering the fact that we live under unusual circumstances, were it not for the pandemic that surrounds us, the global market is currently a place of great uncertainty.

The Portuguese GDP growth rate is at 0.20% in 2021. The forecast for the inflation rate is around 0.3%, and for 2022 it is at 0.9%, according to data from the Bank of Portugal (Economia Finanças, 2020).

At the end of 2020, the number of people in underutilized work amounted to 373.2 thousand. This number represents an unemployment rate of 7.1% (INE, 2020).

According to INE (National Statistics Institute), individual consumption expenditure per capita stood at 86.2% of the EU average in 2019. These figures are representative of high tax rates and result in a decrease in private consumption.

Privately, businesses in Portugal have a high "mortality" in the first two years of life. According to data from PORDATA, the survival rate of companies (by legal form) in the first year is 71.7%. In the second year, only 56.1% of the companies created survive (PORDATA, 2020).

#### **5.1.1.3** Social factors

According to data from Macrotrends, Portugal has 10,167,925 inhabitants, which represents a 0.28% decline from the year 2020 (Macrotrends, 2021).

One of the most important factors impacting the nutraceutical market is Obesity. The WHO points to the Portuguese as a reference in preventing obesity in children, and between 2008 and 2016 the number of overweight children decreased by about 7.2% (Nações Unidas, 2020). We can conclude that the Portuguese are increasingly aware of this problem and are trying to seek a balanced diet to combat obesity.

Education in Portugal reaches everyone, however, there are some doubts about the quantity and consistency. This is because although there are good quality world-class higher education courses, there are also many others that have no professional output.

According to the EU Startup Monitor (2020) (Mauer & Steigertahl, 2018the startup ecosystem in Portugal has evolved in recent years also due to government investment. Portuguese startups are looking for new global markets and 96.9% are looking to strengthen the Eurozone (Mauer & Steigertahl, 2018).

# **5.1.1.4** Technological factors

According to the report coming from Deloitte, cloud computing and artificial intelligence will continue to dominate the market (Deloitte, 2021). The 3 major factors, according to the same report, are: (1) redouble digital transformation efforts; (2) reorient and retrain workforces; and (3) re-examine where and how manufacturing happens.

Globally, technology spending in 2020 was about \$4,0005,032, with the European Union despite catching up since 2016, it still lags the United States in terms of new technology adoption (IDC, 2020).

In Europe, the Information and Communication Technology (ICT) sector accounts for 4.8% of the European economy, generating 25% of total Research and Development (R&D) spending, with ICT investments accounting for 50% of all productivity growth in Europe (Portugal IN, 2020)

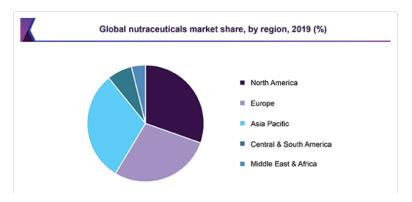
With the adoption of ICT, companies show a very significant increase when it comes to Business processes (Technavio, 2017).

# **5.2 Industry analysis**

In order to analyse the Nutraceuticals industry, I analysed the market in terms of demand, size, and attractiveness. Next, I also used Michael Porter's work, known as Porter's 5 Forces, which provides a tool for analysing the structural factors that condition an industry.

#### **5.2.1** Market overview

As stated earlier, the global nutraceuticals market was valued at USD 412.7 billion in 2020 and is estimated to expand by 8.3% by 2027. We can see from figure 5.2 that the Asia-Pacific region has the largest market share in 2019 due to the large growth in health concerns among consumers. In addition to this, the growing elderly population and changing consumer habits in health products have enabled the growth of the nutraceuticals industry. The North American market is also expected to grow due to increasing awareness about nutritional enrichment among professionals in the US and Canada (GVS, 2019).



**Figure 5.2 Global nutraceuticals market share** (Source: Grand View Research)

On a global scale, the effect of the pandemic had little effect on the vitamin and supplement industry. According to the report by the company PharmaLinea (Pharmalinea, 2020), the market grew by 5.1% in 2020, reaching \$109,609 million. As we can see in figure 5.3, by 2025 the worldwide value of the market could reach \$149,035 million.

#### Global vitamins & dietary supplements market

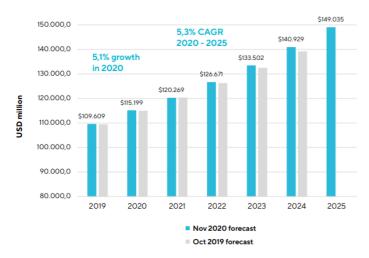


Figure 5.3 Global vitamins & dietary supplements market (PharmaLinea, 2020)

Also, through the same study, we can observe in figure 5.4 that most countries had a growth in the market for vitamins and dietary supplements in the year 2020, compared to the year 2019. Of note is the 24.9% growth in the Egyptian market and, on the other hand, the negative growth of 9.6% in the case of Thailand.

# Vitamins & dietary supplements growth by country

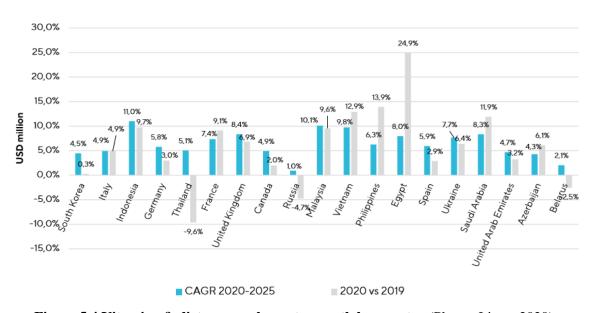


Figure 5.4 Vitamins & dietary supplements growth by country (PharmaLinea, 2020)

Specifically speaking of the European market, it had a generalized sharp decrease at the beginning of 2020, according to Eurostat data (Eurostat, 2020). However, from May onwards the trends returned to normal levels with some fluctuations, as illustrated in figure 5.5.

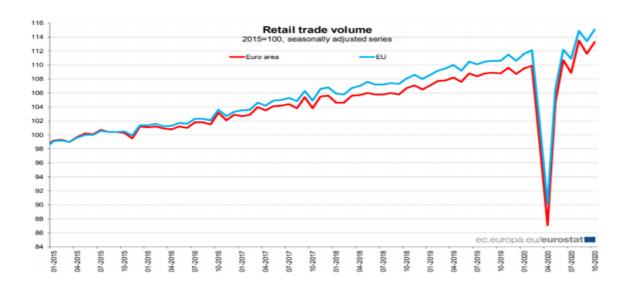


Figure 5.5 Retail trade volume (Eurostat, 2020)

In European pharmacies, based on data provided by IQVIA (figure 5.6), we observe a peak in sales in March, which corresponds to the pre-lockdown period due to the pandemic. In Portugal, pharmacy sales grew 105% in the pre-lockdown period.



Figure 5.6 Pharmacy retail sell-out in opening 28 weeks of 2020 (IQVIA Weekly Data, 2020)

Also of important analysis, we see in figure 5.7 data from Euromonitor Consumer Health regarding the positioning of each product within the dietetic category. We note that the immunity, digestive, joint, immune system, and mood/relaxation categories grew more than the average total growth in 2020 (PharmaLinea, 2020).

# Dietary supplements by positioning

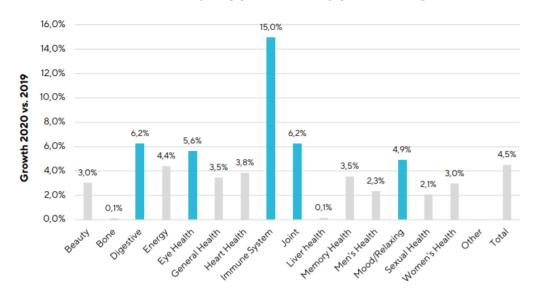


Figure 5.7 Dietary supplements by positioning (PharmaLinea, 2020)

According to the report coming from Euromonitor and inserted in the PharmaLinea study (PharmaLinea, 2020), it is interesting to analyse in figure 5.8 that cough and cold remedies have been decreasing, especially with the initial pandemic season where these types of remedies had the biggest drop. On the other hand, the pandemic brought a demand never before seen in the area of prevention, more specifically in dietary supplements for immune health.

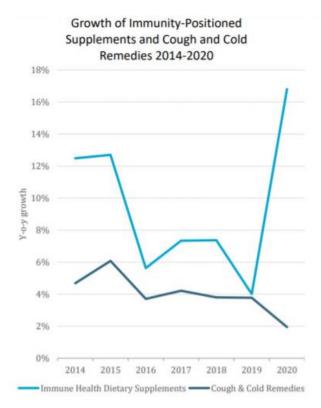


Figure 5.8 Growth of Immunity-Positioned Supplements and Cough and Cold Remedies 2014-2020 (PharmaLinea, 2020)

### 5.2.2 Porter's 5 forces Framework analysis

Porter's 5 forces model refers to the competitive forces that shape a company's strategy and is intended to analyse the competition between companies in the market and the influence on our business, such as competitors, substitutes, new entrants, customers, and suppliers.

# \* Rivalry among existing competitors

The industry we are looking at has very strong and diverse competition. As we saw earlier, laws are being enforced more and more in order to have greater product safety. However, there are also more and more competitors in the market, mainly through products fortified with functional ingredients. As it is a very comprehensive market, we can find players that either focus on several areas with a single product or try to be more specific by creating several products for various specifications.

# Threat of substitute products or services

Since this is an industry where there is a huge investment in research and innovation, there is the threat that cheaper products can be made, or that they may be able to bundle several substances together so that the consumer will choose to buy just one product rather than buy several that produce the same effect. In addition, the legislation for supplements is more lenient than for pharmaceuticals, so there will always be some interest in entering this market.

# **&** Bargaining power of suppliers

As for the negotiating power of suppliers, we do not have enough information to be able to evaluate this industry. Beyond that, we can assume that the big companies in this area are their own manufacturers and distributors.

### **&** *Bargaining power of buyers*

The bargaining power of buyers is considered medium since this sector is in high demand, but also has a lot of options in the market. Therefore, companies end up competing for the lowest price.

### \* Threat of new entrants

Although there are several products that offer similar solutions, the cost of entry into this market is considered medium-high due to the surrounding regulations and also the cost of new product development.

### **5.3** Competitors and Product portfolio analysis

With the high level of competition in the market, a competitive analysis is essential. In this analysis, we must evaluate who is present, what they offer, and how they do it. This way, knowing the competition intrinsically, we will be in a favourable position to develop a strategy capable of facing the adversity of the market. Therefore, this competitive analysis is done and explained further on, in table 5.1.

#### **5.3.1** Competitors analysis

For this analysis, given the fact that Acusport has 4 distinct products, the major competitors of each product were sought in the market. This way, all the competitive analysis will be individualized and reflected in table 5.1.

**Table 5.1 Direct competitors for each of the company's products** (Author)

Produtos AcuSport	Concorrente Direto	
Flexicalcium	Flexium; Centrum; Arthoblock.	
Neuro Mais	Memofante; Cerebrum; NutriCérebro.	
Ponderal Fit1	Absorvit 50+; Alcachofra plan; XLS.	
Ponderal Fit2	Easylax; AdvancisbacilPRo; Bio-Intestin.	

In terms of Pricing, and based on the initial pricing strategy, table 5.2 illustrates the comparison between Acusport's products and the main competitors

Table 5.2 Price comparison between competitors and the company's products (Author)

Produtos Acusport	Preço do Produto	Principais Concorrentes	Preço Médio
Flexicalcium	28,55€	Flexium Centrum Arthroblock	21,45€
NeuroMais	26,40€	Memofante Cerebrum NutriCérebro	23,61€
Ponderal Fit 1	24,60€	Absorvit 50+ Alcachofra Plan XLS	28,95€
Ponderal Fit 2	22,50€	Easylax AdvancisbacilPRo Bio-Intestin	20,37€

After this analysis, we should take note that the average prices were calculated without the inclusion of shipping costs.

### 5.4 Firm's analysis

In this analysis of the company, an identification of resources is made and how they are allocated in order to obtain competitive advantage. This identification is fundamental to understand how the company positions itself in relation to the market (Friend & Zehle, 2004). Thus, and following the line of thought of the referenced author, an audit of 4 major areas of the business was carried out.

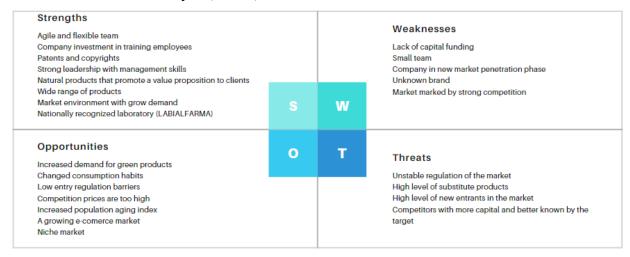
- Operations resources as for tangible and intangible resources, the company is somewhat lacking. Being a start-up with no outside funding, it is still at a more rudimentary stage. However, at this early stage, the company only needs a space to store its products and then transports them through a logistics provider.
- o *Human resources* in human terms, the team is quite small, consisting only of the CEO, a marketeer, and a salesperson. In this initial phase, the company uses some partners who help with marketing and sales management. The company culture allows the training of its employees, and the goal is to increase the team in the years to come.
- o *Organizational resources* despite being a small team, there is a well-defined hierarchy where each person is responsible for his or her part of the company. There is a connection between the sectors; however, the company is guided by the individual organization, responding to a set of criteria and goals defined by the CEO.
- Financial resources financial resources are one of the company's weak points. The
  initial investment was related to patents, brand creation, product development and
  product testing.

# **5.5** Competitive analysis

Once the internal and external analysis is complete, it is now possible to visualize the company's strengths and weaknesses and identify market opportunities and threats. Next, a SWOT analysis is presented, which summarizes the points mentioned above and then allows the design of a set of strategic guidelines that can be implemented in the business.

# 5.5.1 SWOT Framework analysis

**Table 5.3 Firm SWOT Analysis** (Author)



With the help of figure 5.9, it is possible to outline a strategy for the business plan, based on the matrix that combines strengths and weaknesses with industry opportunities and threats:

- Brand differentiation given the number of players in the market, it is crucial that the company is able to implement differentiating actions. In this way, it will assume a prominent position in relation to all existing substitute products.
- Bank loans given the lack of equity capital, one of the options to consider is, without a doubt, bank loans. However, with the initial investment made, this will be an option to consider in the medium-long term.
- Focus in order to gain a competitive advantage, a company should choose to focus on one segment and gain that advantage through lower cost products or through a differentiated portfolio.

# 6. Business Plan

After a careful analysis of the company's internal and external environment, it was possible to understand the company's competitive position and design a compatible strategic business plan that will serve as a guide for the development and implementation of a solution for Acusport. This business plan also defined the business strategy, business model and brand strategy, as well as the operational and marketing planning.

# **6.1 Business Strategy**

As for the business strategy, it should be based early on what the direction of the company wants to take. This direction helps in clarifying what the purpose of the business is and begins with defining the company's mission, vision and values. In addition to this, the company also provides the goals by which success can be measured and therefore the short and long term goals for the 5 years of this business plan are defined.

### **6.1.1** Mission, Vision and Values

Mission, Vision and Values statements provide a summary of what the business in question is about. These statements should be maintained and constantly reflected throughout the business plan and all business actions.

- *Mission* benefit the health of the Portuguese in a natural way
- *Vision* to make available, high-quality products to improve people's health and quality of life
- *Values* alliance with nature to conquer health and well-being. Constant thought in the physical and mental well-being of people through the promotion of self-esteem, in a harmony of health, beauty, and balance.

# **6.1.2** Strategic objectives

As mentioned earlier, setting goals allows us to measure the success of the actions we will take. Since this is a start-up company, objectives are set in different phases. First, short-term objectives that refer to the pre-launch phase of the products. Next, long-term goals that will be measured in the following years. In order to be more easily understood, table 6.1 summarizes the objectives of this business plan.

**Table 6.1 Strategic objectives** (Author)

Year		Strategic objectives	KPIs
	Year 0	Creation of the site in Portuguese (PT) which will include a blog and will allow the purchase of products	Due date
		Social network creation	Due date
		Marketing campaign on the pre-launch of the website	Email subscribers Social media followers
		• Launch of the site in Portuguese (PT) 3 months after its creation	Pageviews
Short-term		Pre-launch marketing campaign	Email subscribers Social media followers
objectives	Year 1	Achieve 2000 sales in the first 12 months of activity	2000 sales
		• Build 50 partnerships with pharmacies, parapharmacies and	
		dietetic centres in the central zone	50 partnerships
			Social media fallowers +
		Pre-launch campaign for the 1st product:	pageviews
		Launch of the 1st product	3 months development
			Social media fallowers +
		Pre-launch campaign for the 2nd product:	pageviews
		Launch of the 2nd product	3 months development

			Social media fallowers +
		Pre-launch campaign for the 3rd product:	pageviews
		Launch of the 3rd product	3 months development
		Opening of the first office	Due date
		Achieve 5000 sales in the 12 months of activity	5000 sales
	Year 2	Build 250 partnerships with pharmacies, parapharmacies and dietetic centres in the north and south	250 partnerships
			Social media fallowers +
		Pre-launch campaign for the 4th product:	pageviews
		Launch of the 4th product	3 months development
Long-term		Achieve 9000 sales in the 12 months of activity	9000 sales
objectives	Year 3	Build 500 partnerships with pharmacies, parapharmacies and dietetic centres throughout the country + islands	500 partnerships
			Social media fallowers +
	Year 4	Pre-launch campaign for the 4th product	pageviews
		Launch of the 4th product	3 months development
		Achieve 13000 sales in the 12 months of activity	13000 sales
	Year 5	Build 1000 partnerships with pharmacies, parapharmacies	
		and dietetic centres	1000 partnerships

For all those people who seek a healthier, more balanced and natural lifestyle, Acusport presents itself as a company that benefits from what is found in nature for the production of its supplements, establishing an ecological relationship, associating three important aspects: knowledge of the millennial experience of human life, technological development, and scientific research.

#### **6.2 Business model**

In figure 6.1 we can see the illustration of a canvas model that briefly and generally portrays the solution explained in this business plan.

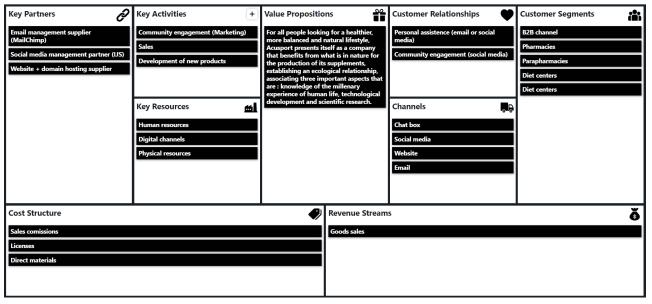


Figure 6.1 Business Model (Autor)

## **6.3 Brand strategy**

We can say that a brand is the figurative representation of any product or service. It can have several representations that lead people to immediately identify what kind of product or service it is. Nowadays, it is considered that the brand is a company's asset and, given its importance, some visual

guidelines were built (represented in figure 6.2) for the Acusport brand that will help in market positioning against competitors and also with a visual that allows the consumer to immediately identify the product.







Figure 6.2 Color variations in logo and visual content (Author)

#### 6.4 Marketing plan

The developed marketing plan contains the guidelines for the implementation of the business marketing programs (Friend & Zehle, 2004). It begins with an approach to segmentation, targeting and positioning, moving on to an approach to marketing-mix optimization, taking into account the 4 P's of marketing (product, price, distribution and promotion). Finally, a sales funnel is developed.

#### **6.4.1** Segmentation, Targeting and Positioning

Market segmentation is divided, in the case of Acusport, into B2B and B2C. However, in both cases, given that the company is at a very embryonic stage, the B2B and B2C market segmentation will have a strategy based on Geographic terms. That is, the company's goal will initially be to focus on a single region (in this case, the central region, initially within Coimbra) and then, as the business gains some notoriety with the consumer, strategically spread the geographical areas where it will spread its product.

In terms of behaviour, Acusport presents products that can be presented at different times of the year and, therefore, cope with the seasonality and buying occasions of consumers.

In terms of targeting, Acusport does not want to be seen as a premium product only accessible to the elites. On the contrary, the company seeks, through its product portfolio, to be present in various age groups and different classes.

Ideally, Acusport will seek to position itself to demonstrate and raise awareness of natural options that positively affect health and well-being, maintaining a close relationship with its audience.

# 6.4.2 Marketing-Mix

The defined marketing-mix, in line with what was explained in the Methodology chapter, will go through a division with some very important points: product, price, place, and promotion (the 4 P's of Marketing).

## **6.4.2.1** Product

The company has 4 different products (figure 6.3) that can, in some cases, be used individually or simultaneously.

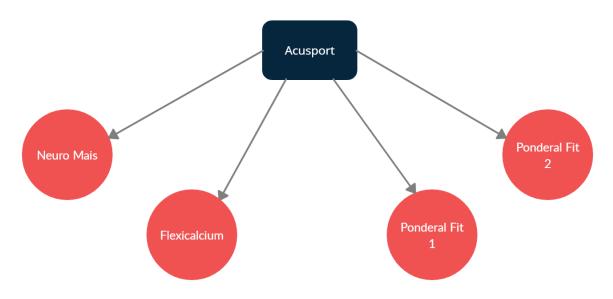


Figure 6.3 Acusport Products (Author)

In order to facilitate the presentation and description of the 4 products, table 6.2 was elaborated.

**Table 6.2 Description of each Acusport products** (Author)

Products						
Flexicalcium	It has a structural protetive formula. It is directed to protection, recovery and optimization of problems related to bones, muscles, tendons and joints, calcium, mineral, iron and magnesium weaknesses, and also has a strengthening function for them. Helps in pain relief, recovery from bone fractures and muscle and tendon ruptures. It also acts as an anti-inflammatory and analgesic, and has an effect of improving sports performances.					
Neuro Mais	Product dedicated to brain performance. It has a psychological function, is directed to good mental performance, reduction of tiredness and fatigue, regulation of hormonal activity, protection of cells against oxidation and a good immune function. Helps the normal functioning of neurotransmitters and the heart. It is ideal for those with memory disorders, difficulty concentrating and paying attention, neurovegetative problems, emotional instability and amnesia, and					

	works in neurosensory and neuromuscular optimization. It is considered a natural supplement to optimize brain function.
Ponderal Fit 1	Product intended for those who aim to lose weight, controlling appetite levels, moderating metabolism and reducing body fat, but wanting to opt for a more natural alternative to other offers on the market. It can be combined and applied in slimming processes, obesity treatment, reduction of body fat, interstitial, cellulite and localized fat, tendency to accumulate fat in certain areas such as the abdomen, buttocks and thighs, such as fluid retention. It can also be combined with weight loss associated with cholesterol and high blood glucose. It can also be used in cases of increased appetite, aggravated intestinal transit and constipation, and hepatic steatosis.
Ponderal Fit 2	Product aimed at solving the problems of constipation, favoring its natural constitution, aiding the natural metabolism and glucose levels, and favoring fat loss. It is the ideal product for the treatment of hard and dry stools, facilitating evacuation. It is also indicated for the treatment of lack of bowel mobility, weight loss associated with cholesterol and/or high blood glucose, imbalance in the digestive process and fluid retention.

This solution can be acquired either virtually, through the company's official website, or through adherent partners. In the case of adherent partners, table 6.3 was drawn up of possible partnerships with pharmacies, parapharmacies, and dietetic centres.

## **6.4.2.2** Price

The price tabulation was made by reviewing the production costs and with the average prices used in the market of competing products (table 6.3). A partnership table was also made (table 6.4) in order to captivate new business partners, maintaining a positive symbiotic relationship.

**Table 6.3 Pricing of Acusport products** (Author)

Produto Acusport	Flexicalcium	Neuro Mais	Ponderal Fit 1	Ponderal Fit 2
Preço do Produto	28,55€	26,40€	24,60 €	22,50€

## **NEW PARTNER**

#### 1º encomenda

- Nutracêuticos à consignação 1 mês
- Rentabilidade 20% sem necessidade de stock
- Sem despesas de envio a partir de 120€

## **GOLD PARTNER**

# Em cada 12 compras, 2 ofertas do mesmo produto

- Rentabilidade 20% + 17%
- Sem despesas de envio

#### PREMIUM PARTNER

# Em cada 30 compras, 6 ofertas do mesmo nutracêutico

- Rentabilidade 20% + 20 %
- Sem despesas de envio

## PREMIUM PLUS PARTNER

## Em cada 30 compras, de 2 ou mais nutracêuticos, 6 ofertas de cada + 2 ofertas\*

- Rentabilidade 20% + 20% + 9.8%
- Sem despesas de envio
- \* nutracêutico de valor inferior

## **Table 6.4 Types of Partnership** (Author)

#### 6.4.2.3 Place

The distribution location for this business is divided between digital and physical. On the digital side:

- Website: "Acusport.pt" the site turns out to be the distribution channel that will have the most impact in the early days. You will have the company's products available for sale and delivery and will have all the information relating to them. It will have a client area in order to be registered and logged in and also an area for business partners.
- *Blog* the blog will have the function of presenting, in a deeper way, the company's products. It will be included in a section of the site and therefore one of the main objectives will be to bring traffic to the site and also to inform and captivate customers.
- Social Media channels through an elaborate and described strategy later, the goal of social networks will be to interact daily with your follower, providing explanatory and informative content. The chosen platforms will be: Facebook, Instagram and YouTube.

As for the physical aspect, Acusport products are available in participating stores and partners. In addition to the products in store, promotional materials will be prepared such as flyers and displays, following an image strategy elaborated by the company.

#### **6.4.2.4 Promotion**

The promotion developed for this business is focused on four marketing strategies that include: content marketing, email marketing, social media marketing, public relations and paid advertising.

### Content marketing (with SEO)

The content marketing strategy will be one of the main organic marketing strategies. It is a way to attract the target audience without directly promoting the brand. Generally, people searching for the type of products Acusport provides will also search for more related information. In this way, the blog was structured in order to promote free and valuable information to the consumer, leading them to the company's website. The blog content strategy will be informative and more in-depth, in order to give valuable insights to the consumer. All this through written content of your own authorship, but also by sharing related articles, such as case studies.

All this traffic will originate from paid advertising or organic sources, such as email, social media and SEO.

As for SEO (search engine optimization), it refers to a set of techniques that aim to position a page, in this case the company's website, in the first results of online search engines, such as Google and Yahoo, through certain keywords.

### ■ Email Marketing

Although several people thought that email marketing would be close to the end due to the growth of social media, however, this is not what happened.

The primary goal is to be able to build a large list of contacts in order to communicate informative blog content or even promotions, personalized content or even request for feedback.

#### • *Social media marketing*

Social media is a powerful communication and relationship tool with our audience. The social media strategy will not only be about building relationships, but also about driving traffic to the website/blog and even generating sales.

#### • Public relations

Through public relations marketing techniques, we can create and strengthen links, thus bringing the company closer to its objectives. It is through public relations marketing that the company will be able to get closer to its public, maintaining a healthy and intelligent relationship and giving brand recognition and product promotion.

#### Paid advertising

Paid advertising is a faster way to get the consumer's attention. With this tool, we will have greater coverage of our content and we can make a more specific segmentation, obtaining more qualified leads. In this way, with a reduced cost, a highly segmented advertising, enabling contact with our target audience, increasing the probability of making the sale.

#### 6.4.3 Sales funnel

A sales funnel was elaborated that allows a better view of the marketing strategies described above. This funnel is detailed in table 6.5 and we can observe how communication and content distribution occurs.

**Table 6.5 Sales funnel** (Author)

Buyer journey	Content distribution	Channels	Purpose
Problem	Short-format posts with content that illustrates difficulties or problems that the audience may be facing.	• Instagram • Facebook • Youtube	Show the audience some of the problems they
recognition	Long-format infomational posts or videos that focus on issues that people face in their day-to-day or may be facing in a short future	• Instagram Reels/IGTV • Youtube	may experience in their day-to-day but have not yet dealt with
Information goodsh	Long-format informational posts that teach the public the beneficts of natural origin products and tops for a healthier and more natural diet	<ul><li>Instagram</li><li>Reels/IGTV</li><li>Youtube</li><li>Facebook</li><li>Blog (SEO)</li></ul>	Help the public to understand that there are solutions to their problems
Information search	External content with backlinks to our website Behind-the-scenes, product origins, lab testings and company information	Press     Media     Instagram     Facebook	as well as their prevention. Create trust in natural products and in

	to build proof and trust with the audience	• Youtube	the brand
	Paid advertising for brand awareness (solution that can solve their issues)	•Google search engine • Instagram • Facebook • Youtube	
Evolution	Paid advertising with free and informative tips on a more balanced diet in exchange for email contact for future communications  Long-format posts from the website that provides valuable information and builds trust in the brand	•Google search engine • Instagram • Facebook • Youtube •Blog • Youtube	Transform audience visitors into leads
Decision	Presentation of a landing page with all the information regarding existing products, prices and partnerships  Two login areas: one for individual customers and one for partnerships	•Website     • Email     • Payment solution	Convert leads into customers
Post-purchase behavior	Support service that helps the customers' issues	•Website • Help desk	Support costumoers to obtain their loyalty to the product

# **6.5 Operational Plan**

Having defined the market entry strategy, it is now crucial to define an operational plan. This operational plan consists of explaining the organizational structure, resource allocation, implementation and control of the strategies.

# 6.5.1 Organizational structure

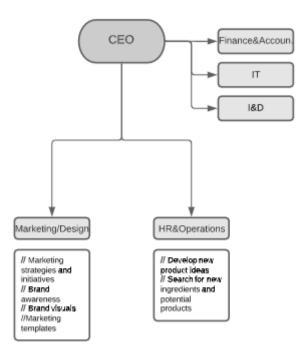


Figure 6.4 Organizational structure in year 0 (Author)

The initial organization of the company will follow a very simple structure, where the focus will be on marketing initiatives, aiming at brand awareness and preparation for the launch of the first products. Furthermore, in figure 6.4 we can see what is foreseen in each department (functions and responsibilities) for year 0, where the marketing and image structure will be given to a hired marketeer with the help of a agency for some initiatives; the responsibilities related to Human Resources and Operations will be in charge of the CEO, as well as manage projects; the IT responsibilities will be given to a supplier who will provide services according to the company's needs; and the Research and Development responsibilities will be given to our main supplier who who, under guidelines from the CEO of Acusport, research, test and manufacture new products.

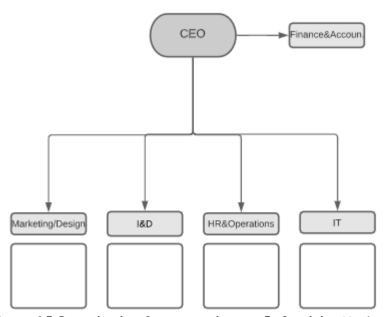


Figure 6.5 Organizational structure in year 5 of activity (Author)

Figure 6.5 illustrates the structure of the company relative to the 5th year of activity, since launch, in order to illustrate and facilitate the vision of the company's plan.

In the 5th year, the organization will ideally have 4 departments related to operational functions (Marketing and Image, R&D, IT and HR&Operations). Finance and Accounting will be a contracted external department.

- ➤ Marketing & Image team responsible for marketing and advertising strategy, as well as sales and image;
- $\triangleright$  I&D team responsible for research new products to the company's portfolio; this team will always have the support of an supplier who tests de ingredients and develop the product.
- ➤ HR & Operations team responsible for the efficiency and performance of the company as well as responsible for new talent scouting, training and onboarding, as well as employee satisfaction and engagement with the company;
- $\triangleright$  IT team responsible for optimizing the site and developing internal and client applications.

#### **6.5.2** Human resources management

Human resource management will be an important role in business operations. The HR department will be managed by the CEO and he will have several initiatives and objectives, including proactively developing employees' skills, preparing them as well as possible for their daily work, increasing internal satisfaction as well as participation/involvement within the company. With these initiatives the company will positively influence the internal environment and work performance, enabling the recruitment of new talents, remuneration, promotions and training:

- *Talent recruitment*—Given that this is a start-up with little investment, the selection process will involve people linked to the industry in question and candidates who fit the company culture and spirit of belonging to a start-up;
- Remuneration Remuneration will initially follow the legally imposed standards for people belonging to the company's fixed teams. However, in relation to these, they can expect promotions as will be explained later.
- *Promotions* Promotions will naturally take place progressively during the first five years, in order to compete with market salaries and attract new talent;
- Work conditions given the construction phase of a fixed office in progress, employees will be able to telework 100%. After the office construction, employees will have a flexible environment in order to be able to combine and balance their personal life and work;
- *Training* one of the company's focuses is the internal training of its employees. Not only will new members undergo a duly structured and progressive training plan, but the remaining team members will also be offered training.

## 6.5.3 Operational and technical resources

The operational and technical resources needed by the company can be divided into resources needed for investment and resources needed for operations. The division is expressed as follows:

- o Resources needed for investment to start with, resources are needed for legal matters, such as registering the company for activity, registering the brand, licences and certifications related to the products made in the laboratory. In terms of product development, resources are needed that include the product development team, the platform (website) and hosting services, such as partnering with the company responsible for marketing.
- Resources needed for operations Since there will be no physical office in the early days, resources will only be needed for accounting and legal services to keep the business well run by law.

## **6.5.4** Implementation and control strategy

As illustrated in table 6.6, the implementation of this project will follow a schedule made according to the strategies described in the business, marketing and operational plans.

Table 6.6 Business	timeline for 5	years	(Author)	)
--------------------	----------------	-------	----------	---

Year	Objective	Duration	Obiective	Duratio	Obiective	Durati	Obiective Durat
Year O	Product developm ent - Flexicalci um	Jan – Apr	Product development – Neuro Mais	Apr - Jul	Product development – Ponderal Fit 1		
Year 1	Pre- launch campaign - Flexicalci um & Neuro	Jan – Mar	Launch campaign – Flexicalcium & Neuro Mais	Mar - June	Pre-launch campaign – Ponderal Fit 1	Jun - Aug	Launch campaign – Ponderal Fit 1

	Mais		
Year 2	Product Jan – developm Jun ent – Ponderal Fit 2	 Launch Oct - campaign – Dec Ponderal Fit 2	
Year 3	Website Jan – optimizati Mar on for english language	 Website Jun- optimization Sep for Spanish language	Launch in Spain
Year 4	Website Jan – optimizati Mar on for french language	Website Jun – optimization for german language	Launch in Germany
Year 5	Website Jan – optimizati Mar on for japanese language	 Website Jun – optimization for italian language	Launch in Italy

## 7. Financial Viability Plan

For the whole business plan to be established, it is necessary to assess its viability in terms of profitability and liquidity for the 5 years of activity.

Thus, this chapter will present the financial analysis of the project, which includes estimates for investments, revenues, expenses and financial statements of the project, such as sensitivity analysis for three possible scenarios.

#### 7.1 Assumptions

As a basis for developing the financial analysis of the project, some assumptions explained in table 7.1 were used. All assumptions refer to payment terms and ratios, such as rates or interest.

**Table 7.1 Project assumptions** (Author)

Project assumptions	
Average term of payment	30 days
Average term of payment collections	30 days
Average term of Social Security payment days	30 days
Average term of VAT payment days	45 days
VAT rate - sales revenue	23%
VAT rate - operating expenses	23%
VAT rate - investments	23%
Social Security rate (entity)	23,75%
Social Security rate (emplyees)	11%
Corporate tax rate	21%
Short-term interest rate	0%
Long-term interest rate	0%
Perpetuity cash flow growth rate	0%
Discount rate	10%

#### 7.2 Financial projections

All the financial projections presented reflect the necessary investment for year zero (2022) and for the remaining five years of activity (2023-2027). In this way, we can see in detail in table 7.2 the investments per year.

Regarding the development phase, the detailed investment refers to the registration of the brand and company, as well as for the development team. Referring to the development projects, the company used a supplier that offers the product "key in hand", that is, the cost of development, tests and even packaging, image and transport is included in the final price of the product.

From the year 2024, the investments will be used to build the fixed office, containing basic office equipment (desks, chairs, pens, meeting tables, etc.) and technological equipment (computers, printers, servers, etc.). In the possibility of an increase in the team, the needs regarding equipment will also be met.

**Table 7.2 Investment per year** (Author)

Investment per year	2022	2023	2024	2025	2026	2027	Accumulated
Tangible fixed assets							
Land and Natural Resources	0	0	0	0	0	0	0

Buildings and other constructions	0	0	0	0	0	0	0
Basic office equipment	0	2714	0	0	1231	615,5	4560,5
Transport Equipment	0	0	0	0	0	0	0
Technological equipment	0	4396,25	0	0	2085,18	1042,61	7524,04
Other tangible fixed assets	0	0	0	0	0	0	0
<b>Total Tangible fixed assets</b>	0	7110,25	0	0	3316,18	1658,11	12084,54
Intangible assets	0	0	0	0	0	0	0
Development project	0	0	0	0	0	0	0
Business and brand registration	127,5	0	0	0	0	0	127,5
Other intangible assets	0	0	0	0	0	0	0
<b>Total Intangible assets</b>	127,5	0	0	0	0	0	127,5
<b>Total Investments</b>	127,5	7110,25	0	0	3316,18	1658,11	12212,04

As mentioned in the Marketing Plan, the company, at the moment, has three products in early development: Flexicalcium, Neuro Mais and Ponderal Fit 1. However, the other remaining is already in the initial phase. The prices of the two initial products, Flexicalcium and Neuro Mais, will be, respectively, 28.55 and 26.40€; Ponderal Fit 1 will be 24.60€ and Ponderal Fit2 will be 22.50€. For sales projections, sold quantities of 4,500 units (1st year), 9,000 units (2nd year), 13,000 units (3rd year), 20,000 units (4th year), and 29,500 units (5th year) were considered, as shown in Annex B.

Table 7.3 illustrates the sales projection for the first five years of the company's activity.

**Table 7.3 Sales revenue** (Author)

Sales revenue	2023	2024	2025	2026	2027
Flexicalcium	42825	71375	99925	157025	228400
Neuro Mais	39600	66000	92400	145200	211200
Ponderal Fit 1	36900	61500	86100	135300	196800
Ponderal Fit 2	0	33750	56250	78750	123750
Total revenue	119325	232625	334675	516275	760150

X/A/TD (2004)	2744475	50500 75	7.075.05	1107400	1740045
VAT (23%)	2/444,/5	53503,75	76975,25	118/43,3	1/4834,5

After understanding the data taken from the business sales projection, the operating costs were identified, starting with the operating costs explicit in table 7.4. These costs were projected based on the monthly costs of services presented in Annex C.

**Table 7.4 Annual operating costs** (Author)

Annual operating costs	2023	2024	2025	2026	2027
Hosting and domain services	1020	1020	1020	1020	1020
Accounting services	2196	2196	2196	2196	2196
Legal services	1800	1800	1800	1800	1800
Communication services (includes Internet)	462	462	462	462	462
Rent	0	6000	6000	6000	6000

Electricity services	0	852	852	852	852
Water services	0	227,4	227,4	227,4	227,4
Gas services	0	0	0	0	0
Office supplies	0	1317	1317	1317	1317
Advertising	600	1200	2400	3600	4800
Insurance	0	1000	1000	1000	1000
Softwares	280,61	280,61	280,61	280,61	280,61
Other services	0	0	0	0	0
<b>Total Operating Costs</b>	6358,61	16355,01	17555,01	18755,01	19955,01

					i I
Deductible VAT	1/62 /8	3761 652	1037 652	1313 652	4589,652
Deductible VAI	1402,40	3701,032	4037,032	4313,032	4367,032

In addition to operating expenses, project staff expenses are also assessed. These forecasts are present in table 7.5, and the costs are based on the number of employees (Annex D) and their probable gross salaries (Annex E) The calculations regarding the number of employees are based on the strategic objectives previously defined for the business (product launch, research and development of new products).

**Table 7.5 Staff expenses** (Author)

Staff expenses	•	2023	2024	2025	2026	2027
Annual remuneration basis (gross)						
Administration / Directors		7980	7980	10800	13200	24000
IT		0	0	0	0	9000
Sales / Marketing		7980	7980	10800	12000	26400
I&D		0	0	0	10800	12000
HR&Operations		0	0		10800	12000
Total annual remunerations (gross)		15960	15960	21600	46800	83400
Other expenses						
Social Security	34,75%					
Administration	34,75%	2773,05	2773,05	3753	4587	8340
Personal	34,75%	2773,05	2773,05	3753	11676	20641,5
Insurance - work accidents	1%	159,6	159,6	216	468	834
Food allowance Euros / day	4,77	3463,02	3463,02	3463,02	8080,38	9234,72
Total other expenses		9168,72	9168,72	11185,02	24811,38	39050,22
Total staff expenses		25128,72	25128,72	32785,02	71611,38	122450,22

Working Capital Needs were calculated, as shown in Table 7.6. The positive values indicates that the business needs to have money to prepay some of the existing suppliers.

**Table 7.6 Working Capital Needs** (Author)

Working Capital Needs	2022	2023	2024	2025	2026
Reserve Cash and Banks	20 000	25 000	47 500	90 250	171 475
+ Customers credit	30 000	48 000	76 800	122 880	196 608
+ Average Duration of Materials in					
Warehouse	0	0	0	0	0
- Suppliers credit	10 000	16 000	25 600	40 960	65 536
- State Public Sector	0	0	0	0	0
Working Capital Needs	40 000	57 000	98 700	172 170	302 547
Investment in Yearly Working Capital Needs	40 000	17 000	81 700	90 470	212 077

Analysing the projected income statement for this business (table 7.6), we can conclude that, despite the high personnel and manufacturing costs, the results will be quite positive in the long term.

**Table 7.7 Income provisional statement** (Author)

Income statement	2023	2024	2025	2026	2027
Revenue (sales)	119325	232625	334675	516275	760150
Costs					
		58156,2		129068,7	
Cost of good sold	29831,25	5	83668,75	5	190037,5
Operating expenses	6358,61	16355,0 1	17555	18755	19955
		25128,7			122450,2
Staff expenses	25128,72	2	32785,02	71611,38	2
Sub-total Operating costs	61318,58	99639,9 8	134008,7 7	219435,1	332442,7
EBITDA	58006,42	132985	200666,2	296839,8 7	427707,2 8
Amortizations for the year	15,5	15,5	15,5	15,5	15,5
<b>Total Operating costs</b>	61334,08	99655,4 8	134024,2 7	219450,6 3	332458,2
EBIT (Earnings before interest and taxes)	57990,92	132969, 5	200650,7	296824,3 7	427691,7 8
Interest expenses	0	0	0	0	0
EBT (Earnings before taxes)	57990,92	132969, 5	200650,7	296824,3	427691,7 8
		27923,6			
Taxes (21%)	12178,09	0	42136,65	62333,12	89815,27
Net income	45812,826 8	105046	158514,0 8	234491,2	337876,5 1

After looking at the income statement, it is possible to identify the annual and cumulative cash flows for this project, expressed in Table 7.8. Although the accumulated cash flow is not a truly

extraordinary figure, it should be noted that this is a project at a very early stage and that it seeks to have sustainable long-term growth. The first year will undoubtedly be a difficult one, but it will still be profitable.

**Table 7.8 Project's Cash-flow** (Author)

Project's Cash-flow	2022	2023	2024	2025	2026	2027	
<b>Operational Cash-flow</b>		58006,42	132985	200666,2	296839,9	427707,3	1116205
Investment in Fixed Assets	127,5	7110,25	0	0	3316,18	1658,11	12212,04
Investment in Working Capital	45 000	17 000	81 700	90 470	217 077	217 077	668 324
<b>Total Investments</b>	45127,5	24110,3	81700	90470	220393	218735	680536
<b>Total Cash-Flow</b>	-45127,5	33896,17	51285	110196,2	76446,72	208972,2	435668,8
Accumulated Cash-Flow	-45127,5	-21017,3	102717,3	-12247,3	232640,4	-13905,3	694441,4

Regarding the management of liquidity and financial risk, table 7.9 was drawn up showing that the company will be able to fulfil its financial obligations with the salaries of employees and suppliers due.

**Table 7.9 Treasury Balance** (Author)

Treasury	2022	2023	2024	2025	2026	2027
<b>Funds Origins</b>	45127,5	58006,42	132985	200666,2	296839,9	427707,3
Operational Cash-flow	0	58006,42	132985	200666,2	296839,9	427707,3
Capital Share and Partner supplies	20000	0	0	0	0	0
Obtained loans	25127,5	0	0	0	0	0
Disinvestments in Working Capital	0	0	0	0	0	0
<b>Funds Applications</b>	45127,5	35520,7	103936	126666	277415	283373
Fixed Capital Investment	127,5	7110,25	0	0	3316,18	1658,11
Investment in Working Capital	45 000	17 000	81 700	90 470	217 077	217 077
Profit Tax	0	5201,13	16026,84	29986,95	50812,15	58429
Loans Repayment	0	6209,28	6209,28	6209,28	6209,28	6209,28
Financial charges	0	0	0	0	0	0
<b>Annual Treasury Balance</b>	0	22485,76	29048,88	73999,97	19425,29	144333,9
<b>Accumulated Treasury Balance</b>	0	22485,76	51534,64	125534,6	144959,9	289293,8

## 7.3 Financial viability analysis

After a strenuous analysis, it is possible to confirm and conclude that this business is financially viable. In this financial scenario defined in table 7.10, the Net Present Value (NPV) amounts to 587 thousand euros, with an Internal Rate of Return (IRR) of 67%, which is quite high.

As shown, with a very low initial financing, the potential of the business is desired and sufficient for the investment. These selected values will change and improve depending on the initial investment value and leverage through marketing and sales efforts.

**Tabela 7.10 Financial Indicator of Viability** 

Financial Indicator of Viability	
Return on Investment (RoI)	130%
Net Present Value (NPV)	587 168,61 €
Internal Rate of Return (IRR)	67%

#### 8. Conclusion

The present thesis managed, through the answer to all the questions seen and defined previously in the analysis and planning chapters, to demonstrate the success of the business plan for this new company that intends to enter the nutraceuticals market.

Through the analyses made in the previous chapters, we perceived the growing demand for products of natural origin and the growing concern for the wellbeing and health of individuals. Thus, the need for and profitability of the introduction of these new products onto the market was perceived early on. Despite the strong competitiveness existing in the market, as well as other risk and threat factors to the business, this business plan positively managed to present an answer to all the barriers and to demonstrate that there is room to introduce new products and to compete in the market in an ambitious and fierce way.

Initially, the company will have to invest and/or seek seed funding in order to launch the project. However, as proven above, the return will be positive in the short term. The importance of marketing initiatives is great, so that once the product is launched, the target people are reached and impacted in a way that not only leads to purchase, but also to a change in lifestyles and eating habits. Furthermore, given the constant change and evolution of the surrounding industry, the business should take into account and be proactive towards changes in legislation.

In addition to the marketing initiatives that were mentioned and explained in detail, relevance should be given to building partnerships with pharmacies, parapharmacies and dietetic centers in order to become another distribution channel for the company's products. Maintaining the focus on and investing in digital channels but safeguarding the building of local and then national and international partnerships, nurturing a positive relationship with these partners.

The sales estimates were created based very much on the type of investment the company intends to make, mainly in terms of resellers, but also in terms of investment in digital channels.

Thus, the financial analysis shows that the business plan for the company Acusport is financially viable and profitable.

#### 9. References

- Asif, M., Mohd, I. (2019). Prospects of Medicinal Plants Derived Nutraceuticals: A Re-emerging New Era of Medicine and Health Aid. *Progress in Chemical and Biochemical Research*, 2(4), 150-169. doi: 10.33945/SAMI/PCBR.2019.4.1
- Bland, J. S. (1996). Phytonutrition, phytotherapy, and phytopharmacology. *Alternative Therapies in Health and Medicine*.
- Bull, E., Rapport, L., & Lockwood, B. (2000). What Is a Nutraceutical? *The Pharmaceutical Journal*, 265(Vol 265), 57–58.
- Chauhan, B., Kumar, G., Kalam, N., & Ansari, S. H. (2013). Current concepts and prospects of herbal nutraceutical: A review. *Journal of Advanced Pharmaceutical Technology and Research*, 4(1), 4–8. https://doi.org/10.4103/2231-4040.107494
- Coppens, P., Da Silva, M. F., & Pettman, S. (2006). European regulations on nutraceuticals, dietary supplements and functional foods: A framework based on safety. *Toxicology*, 221(1), 59–74. https://doi.org/10.1016/j.tox.2005.12.022
- DeFelice, S. L. (1995). The nutraceutical revolution: its impact on food industry R&D. *Trends in Food Science and Technology*, 6(2), 59–61. https://doi.org/10.1016/S0924-2244(00)88944-X
- Deloitte. (2021). Interview with Paul H . Silverglate. *Deloitte Center for Technology, Media & Telecommunications*.
- Diário da República Eletrónico, 2015. *Decreto-Lei n.º 118/2015*. Available at: https://dre.pt/home/-/dre/67541745/details/maximized
- Dillard, C. J., & Bruce German, J. (2000). Phytochemicals: Nutraceuticals and human health. *Journal of the Science of Food and Agriculture*, 80(12), 1744–1756. https://doi.org/10.1002/1097-0010(20000915)80:12<1744::AID-JSFA725>3.0.CO;2-W
- Direito da União Europeia, 2017. Available at: https://eur-lex.europa.eu/eli/reg\_impl/2017/2470/oj Economia Finanças, 2020. *Previsão para a Taxa de Inflação em 2021*. Available at:
- https://economiafinancas.com/2020/previsao-para-a-taxa-de-inflacao-em-2021/
- Efferth, T., Zacchino, S., Georgiev, M. I., Liu, L., Wagner, H., & Panossian References, A. (2015). Nobel Prize for artemisinin brings phytotherapy into the spotlight. *Phytomedicine*, 22(13), A1–A3. https://doi.org/10.1016/j.phymed.2015.10.003
- Eurostat (2020). *Retail trade volume index overview*. Available at: https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Retail\_trade\_volume\_index\_overview
- Mauer, R., & Steigertahl, L. (2018). EU Startup Monitor 2018 Report. *EU Startup Monitor*, 16. http://startupmonitor.eu/
- European Safety Authority (2002). *Botanicals*. Available at: https://www.efsa.europa.eu/en/topics/topic/botanicals

- Friend, G., & Zehle, S. (2004). Guide to business planning. *Choice Reviews Online*, 46(12), 46-6899-46-6899. https://doi.org/10.5860/choice.46-6899
- GVS (2019). *Nutraceutical market size, share & trends analysis report,* 2020 2027. Available at: https://www.grandviewresearch.com/industry-analysis/nutraceuticals-market
- Gulati, O. P., & Berry, P. (2006). Legislation relating to nutraceuticals in the European Union with a particular focus on botanical-sourced products. 221, 75–87. https://doi.org/10.1016/j.tox.2006.01.014
- IDC (2020). *IDC Global ICT Spending*. Available at: https://www.idc.com/promo/global-ict-spending/forecast
- INE (2020). *Mercado de Trabalho Portugal*. Available at: https://www.ine.pt/xportal/xmain?xpgid=ine\_tema&xpid=INE&tema\_cod=1114&xlang=pt
- Iturrioz, M. G. (2002). De los fitonutrientes a la alimentación vegetariana. Evidencias fisiopatológicas\*. *Natura Medicatrix*, 2(20), 55–66.
- Jornal Oficial da União Europeia (2002). Available at: https://eur-lex.europa.eu/oj/direct-access.html
- Kalra, E. K. (2003). Nutraceutical Definition and introduction. *AAPS PharmSci*, 5(3), 1–2. https://doi.org/10.1208/ps050325
- Koch, A., Brandenburger, S., Türpe, S., & Birringer, M. (2014). The Need for a Legal Distinction of Nutraceuticals. Food and Nutrition Sciences, 05(10), 905–913. https://doi.org/10.4236/fns.2014.510100
- Macrotends (2021). *Portugal Population Growth Rate* 1950-2021. Available at: https://www.macrotrends.net/countries/PRT/portugal/population-growth-rate
- Ministério da Saúde (2005). Decreto-Lei n.º 134/2005 de 16 de Agosto. Diário Da República, 1ª Série(156), 4763–4765.
- Mohammad, A., & Imran, M. (2019). Prospects of Medicinal Plants Derived Nutraceuticals: A Remerging New Era of Medicine and Health Aid. *Progress in Chemical and Biochemical Research*, 2(4), 150–169. https://doi.org/10.33945/sami/pcbr.2019.4.1
- Nações Unidas (2020). *OMS aponta Portugal como referência para prevenir obesidade nas crianças*. Available at: https://news.un.org/pt/story/2020/03/1706141
- Pandey, M., Verma, R. K., & Saraf, S. A. (2010). Nutraceuticals: New era of medicine and health. *Asian Journal of Pharmaceutical and Clinical Research*, *3*(1), 11–15.
- Pharmalinea. (2020). *Food supplement industry data in 2020*. 21. https://pharmalinea.com/wp-content/uploads/2020/01/2020-food-supplement-industry-data.pdf
- PORDATA (2020). Taxa de sobrevivência das empresas a 1 e 2 anos: por forma jurídica. Available at:
- Portugal IN (2020). Tech/innovation. Available at: http://www.portugalin.gov.pt/innovation/

- PwC, 2021. *Corporate Taxes on corporate income*. Available at: https://taxsummaries.pwc.com/portugal/corporate/taxes-on-corporate-income
- Santini, A., & Novellino, E. (2014). Nutraceuticals: Beyond the Diet Before the Drugs. *Current Bioactive Compounds*, 10(1), 1–12. https://doi.org/10.2174/157340721001140724145924
- Sattigere, V. D., Ramesh Kumar, P., & Prakash, V. (2018). Science-based regulatory approach for safe nutraceuticals. *Journal of the Science of Food and Agriculture*, 100(14), 5079–5082. https://doi.org/10.1002/jsfa.9381
- Technavio (2017). *Global Wearable Security Devices Market 2017-2021*. Available at: https://www.technavio.com/report/global-machine-machine-m2m-and-connected-devices-global-wearable-security-devices-market-2017
- Trading Economics, 2021. *Portugal Government Spending*. Available at: https://tradingeconomics.com/portugal/government-spending
- Transparency International, 2020. *Índice de Perceção da Corrupção 2020*. Available at: https://transparencia.pt/corruption-perception-index/
- Zhao, J. (2007). Nutraceuticals, Nutritional Therapy, Phytonutrients, and Phytotherapy for Improvement of Human Health: A Perspective on Plant Biotechnology Application. *Recent Patents on Biotechnology*, *1*(1), 75–97. https://doi.org/10.2174/187220807779813893
- Zhao, J. (2011). Phytonutrient and Phytotherapy for Improving Health. In *PubMed* (Issue july). https://doi.org/10.1007/978-3-642-20113-4\_6

# 10 Anexes

# Annex A – Marketing-Mix

PRODUCT	PRICE	PROMOTION	PLACE
Design	List price	Advertising	Geography
Features	Discounts	Direct marketing	Channels
Quality	Credit terms	Sales promotion	Retailers
Quantity	Repeat purchase	Coupons	Opening times
Variations	Payment method	Bundling	Order taking
Packaging		Joint promotion	Fulfillment
Brand		Loyalty programs	Delivery
Service		Public relations	

Figure 10.1 Marketing-Mix (Friend & Zehle, 2004)

# Annex B – Sales Quantities

**Table 10.1 Quantity projections** (Author)

Sales (units sold)	2023	2024	2025	2026	2027
Flexicalcium	1500	2500	3500	5500	8000
Neuro Mais	1500	2500	3500	5500	8000
Ponderal Fit 1	1500	2500	3500	5500	8000
Ponderal Fit 2	0	1500	2500	3500	5500
Total sales	4500	9000	13000	20000	29500

# **Annex C – Monthly Operating Costs**

**Table 10.2 Monthly operating costs** (Author)

Monthly operating costs	2023	2024	2025	2026	2027
Hosting and domain services	85	85	85	85	85
Accounting services	183	183	183	183	183
Legal services	150	150	150	150	150
Communication services (includes Internet)	38,5	38,5	38,5	38,5	38,5
Rent	0	500	500	500	500
Electricity services	0	71	71	71	71
Water services	0	18,95	18,95	18,95	18,95
Gas services	0	0	0	0	0

Office supplies	0	109,75	109,75	109,75	109,75
Advertising	50	100	200	300	400
Insurance	0	83,33333	83,33333	83,33333	83,33333
Softwares	23,38417	23,38417	23,38417	23,38417	23,38417
Other services	0	0	0	0	0
<b>Total Operating Costs</b>	529,88	1362,92	1462,92	1562,92	1662,92

# Annex D – Staff number

Table 10.3 Annual staff number (Author)

Staff (number)	2023	2024	2025	2026	2027
Annual staff number					
Administration / Directors	1	1	1	1	1
IT	0	0	0	0	1
Sales / Marketing	1	1	1	1	2
I&D	0	0	0	1	1
HR&Operations	0	0	0	1	1
Total staff number	2	2	2	4	6