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Where to next?

Logistics system – Pimensor

Carolina Silvério Carvalho Duarte

Master in Internacional Management

Supervisor:
João Carlos Rosmaninho de Menezes, Associated Professor (with Habilitation), Department of Marketing, Operations and General Management Iscte Business School.

September, 2022

BUSINESS
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Department of Marketing, Strategy and Operations.

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Resumo

Este estudo baseia-se numa PME portuguesa, Pimensor, uma empresa sediada no Alentejo que produz produtos agro-alimentares utilizados na cozinha tradicional portuguesa, tem como objetivo desenvolver uma estratégia de logística e de cadeia de abastecimento de forma a auxiliar a empresa a expandir para um novo mercado, o objetivo é fornecer uma nova visão e análise da Pimensor, bem como, dar sugestões, com base nas análises feitas, para que esta empresa possa expandir sem comprometer a logística e cadeia de abastecimento já existentes . A estratégia a ser utilizada deve ser adequada e customizada para a empresa e o possível novo mercado, pois nem todos os mercados são iguais, nem os objetivos da empresa para cada mercado. Esta tese apresenta algumas limitações por se tratar de um produto alimentar específico com condições e características próprias. Para pesquisar e analisar este tema, foi realizado um estudo de caso com dados provenientes de um estágio de nove meses na empresa.

Palavras-Chave: Logística; Cadeia de Abastecimento; Novo Mercado; Expansão.

Abstract

This study is based on a Portuguese SME that is Pimensor, a company based in Alentejo that produces agri-food products used in traditional Portuguese cuisine, it has the intention of developing a logistics and supply chain strategy in order to help the company expand to a new market, the objective is to provide a new insight and analysis of Pimensor, as well as, give suggestions, based on the analysis made, so that this company can expand without compromising the logistics and supply chain of the company and the services already existent. The strategy that is going to be used has to be appropriated and customized for the company and the possible new market since not all markets are the same, neither are the goals of the company to each market. This thesis has some limitations since it is a specific food related product with conditions and characteristics of its own. To research and analyze this topic, it was conducted a case study with data collected during the internship.

Key Words: Logistics; Supply Chain; New Market; Expansion.

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Glossary of Acronyms

SME – Small, Medium Enterprise.

FH – Flor das Hortas.

FOB - Free on board.

HT - Heat Treated Pallet.

SWOT – Strengths, Weakness, Opportunities and Threats.

GDP - Gross domestic product.

EEC - European Economic Community.

Introduction

The topic of internationalization in business has been studied more frequently in the last years, with authors writing and analysing companies that want to go international, however, for a firm to choose to go international, or even if it already is, to expand to a new market, it has some topics to consider, such as the risks, resources and strategies needed. With the goals well defined and even with illimited resources, there is always barriers to internationalization, internal and/or external.

While logistics is linked to the management, planning, implementing and control of the information from the point of origin until reaching the final consumer, supply chain management involves the planning and management of all activities in sourcing and procurement, conversion, and all logistics management operations. The management of logistics and supply chain, when done efficiently, combines coordination and collaboration in and through other companies. The logistic process, adaptation to different situations and internationalization on different countries has been studied over the years, however, there can be seen the need to explore/study this topic on different size company's such as Small, Medium Enterprises (SMEs), different countries, and different areas of activity (Accorsi et al., 2018; Odlin, 2019; Ong et al., 2022). Analyzing supply chains can have different aspects in consideration depending on the area of activity and product transported, food related products production and distribution systems are a subject in need of development and study (Odlin, 2019; Yadav et al., 2022), the different market opportunities for this products as well as the logistics needed to deliver, the openness and clarity of food operations would result in more precise planning and control of the production and distribution processes (Accorsi et al., 2018), consequently, analyzing the different markets and strategies necessary to be successful in exporting agri-food related products.

While an interest in the global supply chain topic in literature remains, the approach to the effects of internationalization on SMEs remains scarce and constitutes a gap in this stream of literature (Caiazza, 2016). With the purpose of helping and accelerate the internationalization process in the smaller firms, SMEs started to develop partnerships with larger enterprises, however, the way this can be possible through a partnership has not been studied enough (Child et al., 2022), and the strategies used to build this agreement, to build an intermediary between countries and cultures to facilitate market entry for SMEs, also needs to be a major focus of new studies (Ong et al., 2022), this way, originating a literature gap.

Based on this gap, this thesis aims to contribute to the knowledge of how SMEs can internationalize, strategies, choice of future markets and supply chain adaptation, all of this on a Agri-

food market. The objective of this study is to contribute to the knowledge of how SMEs can internationalize, the choice of future markets and adaptation of the supply chain, all this in an Agri-food market, which in this case is Pimensor, so the objective is to analyze the Pimensor's logistics and supply chain system, assess the possibility of expanding into a new market and analyze/suggest an expansion process as well as the strategy.

Thus answering the following questions:

- How does an agri-food company choose a new export market? How can an SME export to a new market?
- What strategies can and should be used?
- How will the existing supply chain model adapt to a new market?

The data used in this study were collected during the internship from documents provided by the company, from interviews with teaching staff and analysis of the processes in real time by observation. Since this work is based on a company, it has some limitations, it's a specific food related product with conditions and characteristics of its own, it is not a general product or can it be used as a model of internationalization and supply chain adaptation that would fit any product in any market. Future research based on agri-food products and small-medium enterprises can contribute to a more understanding study of the agri-food area of business, as well as, how the size of a company, being a SME, can affect the strategy and actors present in a new market entry. In order to be more accurate, this project is written with the assumption that the group Pimensor has the certification needed for international trade, since the group here discussed is working towards this goal and is expected to achieve the international certification required in the near future, thus, only after the referred certification it will be suitable for international trade.

This thesis starts with a brief introduction of the subject of study, and is divided into four (4) chapters, the first focus on the literature review giving a introduction and basic knowledge of the thesis topics such as logistics, supply chain management, agri-food companies and internationalization. The second chapter focus on the methodology, research design, data collection and methods of analysis, here is determined the objective of this work, the data collecting method, as well as, the method of analysis used. The third chapter is data analysis, analyse of the company, how the country for internationalization was chosen and the characteristics of this country that make the internationalization viable. The fourth chapter focus on the analysis of results, the chosen export method and the implementation of said choice, and finally, the last chapter is conclusions, where everything ties together, and the questions are answered.

Chapter 1. Literature Review

1.1 Logistic and supply chain management

Due to nature of this project, I think it is pertinent to start by defining logistics and supply chain management as they are the basis of this work.

The Council of Professional Supply Management (Vitasek, 2013) defines logistics as the activity, belonging to the supply chain, which is responsible for the resource, implementation, and control of the flow of goods and/or services, as well as the information related to them, from its origin to its destination, as efficiently as possible.

Logistics is linked to the ability to "create" and manage the system of raw materials, processed product, and final product in the fastest, most efficient, and cheapest way. Since it is considered that logistics is one way to create differentiation and can be a differentiating factor, it is a service to customers that demonstrates quality and commitment.

"The key to achieving logistical leadership is to master the art of matching operating competency and commitment to key customer expectations and requirements." (Bowersox et al., 2002).

Customer service has various levels of satisfaction, these levels depend on the management of the functional areas of logistics, namely, ordering processing, inventory, and transportation, and while these three areas are independent and can be managed and changed Individually, the fourth functionality of logistics (warehousing, materials handling and packaging) depends on the three mentioned above. The functional areas mentioned are the key to creating a logistical system that works and adapts to each company and its needs.

The term "Supply Chain Management" was created due to the recognition of the need for an organization of the distribution system and its processes. The processes that cover supply, production, distribution, customers, etc., integrate the supply chain and are managed by it to increase and guarantee operational efficiency and maintain market competitiveness.

The supply chain is the process that involves supply, demand and order management, production, management of resources and coordination of the production and distribution chain of the product, thus being defined as "the management of a network of relationships within a firm and between interdependence organizations and business units consisted of material suppliers, purchasing, production facilities, logistics, marketing, and related systems that facilitate the forward and reverse flow materials, services, finance and information from the original producer to the final customer with

the benefits of adding value, maximizing profitability through efficiencies, and achieving customer satisfaction" (Shetty, 2019).

The management of all elements of the supply chain and the constant sharing of information in it allow for greater efficiency and logistical performance, and the sharing of information in this process helps in planning and improving the stages of logistical management.

The organization of the supply chain is not just the suppliers and producers, it is the whole set of functions performed so that the product reaches the customer, from marketing to transport and warehousing. It is the management of all stakeholders that increases the profitability of the supply chain (Ribeiro Magalhães, 2020).

1.1.1 Relation between Logistic and Supply Chain Management

There is a relationship between logistics and supply chain management, some authors (Anca, 2019) consider logistics a small portion of supply chain management, since logistics manages the inventory in order to deliver on time and aims to achieve greater efficiency.

One of the differences between these two concepts is what each one includes, while the supply chain is responsible for the planning of supply, demand and all logistics management activities, logistics englobes the management that plans, implements and controls stock, services and related information.

The Council of Supply Chain Management Professional says that "supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion and all logistics management activities" (Ribeiro Magalhães, 2020).

1.1.2 Logistic in companies – importance and performance evaluation

Bearing in mind that logistics is a means to optimize the entire production process up to the delivery of a product to the final consumer, in the most efficient way and with the lowest possible costs. With the increase in trade, logistics is a differentiating factor that adds value to the company when adapted and used in the best way possible, giving rise to a competitive advantage for the company.

It is the strategic use and management of logistics and supply chain management that improves the company's performance, so it is worth noticing that any decision or action made in any part of this sector can affect the performance and integration of logistics.

Because logistics is considered a way to achieve customer satisfaction (Fernandes et al., 2018), it is also this that dictates its importance, and it is the growing level of customer expectations that makes the market more complex and logistics increasingly necessary. Consequently, it is clear that logistics ends up being a business strategy around customer satisfaction, thus influencing the quality of services and the company.

In order to control and improve the logistical performance of a company, an evaluation of it is necessary, Bowersox & Closs (1996) mentioned that "the measurement of logistical performance consisted of a methodology for analysing the resources destined to the logistical function, and its main objectives consisted of monitoring and controlling logistical operations" (Mansidão, 2019).

Despite the great importance of logistics and its evaluation, the analysis of logistical performance is considered a great challenge, for example, it is mentioned by some authors that logistics used in large companies do not seem viable in SMEs due to their lack of resources (Child et al., 2022), however, what works in a large company does not guarantee the same result in a smaller company, thus requiring an evaluation and constant monitoring of logistical performance, and originating network strategies that help both SMEs and Multinationals to create value and achieve new markets (Caiazza, 2016).

As already mentioned, good logistics and supply chain management increases the effectiveness and level of satisfaction of a company, as well as relates effective business management with the good economic results of a company, also considering the different necessary products and processes, such as raw materials and product design (Pereira et al., 2018).

1.1.3 Stock, packaging and raw materials – implications for logistics

The logistical performance can also be evaluated in terms of availability, operational performance, and service reliability, here comes the problem of availability of stock, availability consists of a constant stock that always manages to meet the needs of customers, however, a larger stock means a larger expense, it is extremely important to reach a middle ground, where there is never a lack of stock for the orders and there is also no exaggerated stock.

While the operational performance is related to the delivery time (Bowersox et al., 2002), the service reliability has to do with the quality, consequently referring the need for a good and fast transport, which is always linked to the existing production and stock and the need to have a reliable and quality logistics system.

"A firm's operational performance can be viewed in terms of its flexibility to accommodate unusual and unexpected customer requests."(Bowersox et al., 2002), meaning, the possibility to deal and successful deliver unexpected customer requests, requests that are not periodical or scheduled.

Agri-food companies, such as Pimensor, depend largely on the quality of their raw materials, which is also a determining factor for the quality of the final product and its storage, so their organizational structure is an important factor as said by (Gaspar et al., 2018), "as such, organizations must strengthen their organizational structure at the procurement level in order to integrate in their manufacturing processes suppliers that guarantee the best product quality by integrating or performing specialized outsourcing of technical services that assess the quality of raw materials at the laboratory level".

1.2 Why should a company go international?

The choice to go international must be well though and the risks must be analysed in order to be successful. For a long time, it was though that for a company to go international it would need a strong presence in the domestic market first so then they could try to expand to new markets, due to the possible risks and time it would take to concretize. However, since the topic of internationalization become popular and studied, some authors, like (Kubíčková & Toulová, 2013; Kunday & Şengüler, 2015), began studying this topic.

The term "internationalization" is defined by a variety of authors, all trying to explain this process, for example, Welch and Luostarinen (1988) explained as "the process in which firms increase their involvements in international operations", while Penrose (1959) explains it as "the topic focuses on the firm's core competences and opportunities in the foreign environment" (Masum & Fernandez, 2008).

These definitions originated an adaptation and explanation of "internationalization" by Calof & Beamish (1995), these authors wrote about strategy as a part of internationalization, mentioning that it is "the process of adapting firms' operations to international environments" (Masum & Fernandez, 2008), so, adapting/creating a strategy to take a company international.

One of the most used strategies to go international relies on the use of innovation, to create/develop a new product or service that doesn't exist in the new market, it's a way of creating knowledge from external sources and also to develop knowledge and innovation inside the company (Masum & Fernandez, 2008).

There are a variety of reasons to internationalize, however, the most frequent is to access new markets and expand the company business and develop new products.

1.2.1 How does a company go international?

When a firm decides to invest in its internationalization, the first thing to have in account is the strategy and resources needed to expand to a new market. The strategy has to be appropriated and customized for the company and possible new markets, it has to have in account the goals of the firm as well as the resources needed to reach such goals on the estimated time period defined by the company.

The three (3) basic decisions to make before internationalization consists in choosing the market where to expand, when to do it and the scale of the expansion, even if one market is the perfect expansion opportunity for one company, it does not mean it's the right one for every company, this also goes for the timing and scale, everything has to be adapted to the characteristics of the company, for example, an expansion on a big scale means substantial resources are needed that are not available to everyone(Masum & Fernandez, 2008).

The possible ways to go international are:

- Turnkey projects – Two companies oversee the plant and equipment, mostly used by construction companies, chemicals or pharmaceutical, etc.
- Licensing – the right over intangible property is licenced to another entity in exchange for a loyalty fee, most common in pharmaceutical industry. Short term.
- Franchising – Long term commitments, a firm allows another one to do certain activities under their name, Eg. McDonalds.
- Joint Ventures – two or more firms join to work together, sharing revenues and costs, it can be short term or long term. Eg. Sony Ericsson.
- Wholly Owned Subsidiaries – owns 100% of stock, this firms starts a new operation on the new market or acquires an established firm.

- Formulating a strategy and choosing how to enter a new market is one of the first and most important steps in internationalization.

1.3 Agri-food - Small and Medium Enterprises

In the internationalization of Small and Medium Enterprises (SMEs) the need for a better and updated logistics and supply chain system has been increasing, especially in the agri-food industry, this because, despite the knowledge and study of logistics and supply chain in general being very vast, this is mostly about large companies, and there is no adaptation or different studies on how it affects an SME (Caiazza, 2016). Despite the lack of studies and support for SMEs, they constitute the largest business group in Europe with around 99.8% of the business population (Martínez-Román et al., 2019). It should be noted that the term SME can have different associated dimensions depending on the country in which they are located, these can vary in number of workers, capital, among others (Child et al., 2022; Martínez-Román et al., 2019).

The agri-food system is quite complex with several subsystems and specific products, starting with farmers and reaching the final consumer, with different activities, technologies, organizations, and different actors that make it possible for the product to reach the consumer (Caiazza, 2016; Caiazza et al., 2014). Each step of the agri-food system adds value to the final product, (Yadav et al., 2022), from the raw material to the final product. The structuring of a supply chain for an agricultural product includes the identification of all parts, the actors/intervenient, necessary activities and markets involved, which is necessary for the production of agricultural products, such as seeds, fertilizers, agricultural machinery, etc. (Caiazza, 2016). After this phase, production can begin, with the creation of agricultural crops, thus giving rise to agri-food products, from which it passes on to the processing of these products, where the industrial equipment is used.

The processing of products can consist of something simpler such as drying or a more complex process with more advanced technologies in order to reach the desired final product. The last step of these phases is the large-scale distribution of the product, whether for catering, super/hypermarkets, hotels and restaurants or export, with the distributors being large companies that deal with the demand and delivery of these products in different parts of the world.

It is in this distribution process that the biggest problems for SMEs are found, while large, multinational companies are able to export their products in an easier way due to their global nature,

SMEs have a greater difficulty in being able to make this type of export alone or even to find other companies that are able to transact their products internationally (Caiazza, 2016). The difficulty felt by SMEs in being able to distribute their product led to a dominance of the market by multinationals. In order to compete in this global market, SMEs have developed partnership strategies (Caiazza, 2016) by using distributors to help the supply chain process.

An SME in the process of internationalization is more likely to need external support due to its size and financial capacity, often lacking economic resources and information/adaptation. The internationalization of these companies is highly influenced by the context in which they are located, with the economic status and support of the country of origin as the characteristics of the foreign countries to which they intend to internationalize. The partnership strategies now adopted by SMEs provide expertise, monetary funds, legitimacy, and other resources that help these companies achieve internationalization and participate in the international market alongside larger companies, more and more SMEs are using these partnerships to participate in global supply chains (Child et al., 2022).

The relationships created by means of partnership also lead to learning and cooperation between companies, which leads to a greater development of their skills and knowledge, thus forming an evolutionary cycle (Ong et al., 2022). SMEs ally themselves with companies with knowledge and resources in the countries where they are interested in entering, consequently building better strategies, and adapting better to the new environment, these being more specialized in a market or product also have a crucial role in the development of these industries (Odlin, 2019).

In general, SMEs, when internationalizing, end up "copying" domestic companies that are part of the same industry, therefore learning from their success, however, clusters influence these internationalizations by becoming highly concentrated, they limit the capacity of SMEs to obtain the necessary resources for internationalization (Odlin, 2019). When entering the foreign market, companies need to understand and analyse the behaviours and patterns of these countries, hence trying to imitate local companies.

In terms of agri-food companies, they have an interdependent system due to their production and processing of products, it is a system that involves agricultural and industrial companies, as well as services, to be able to operate in different food markets such as dairy products, livestock, fruits and vegetables, etc, (Caiazza et al., 2014).

The agri-food industry is dominated by large transnational corporations, such as Kellogg's, Nestlé, Walmart, Carrefour, and Lay's, which mostly grew with the help of small and medium-sized regional companies (Caiazza et al., 2014). These smaller, regional companies face several problems throughout

the process, largely due to lack of resources, materials such as seeds or fertilizer, human such as farmers or factory labour, financial or climatic conditions, and due to the fact that food products largely depend on climatic conditions for their production (Yadav et al., 2022).

Consequently, agri-food SMEs, despite having fewer resources and facing some problems throughout the production and export process, have been adapting and creating more effective strategies to compete in the most demanding markets.

Chapter 2. Methodology

This research intends to contribute to the knowledge of how Agri-food SMEs can internationalize, in order to do that, it was conducted a case study (deep investigation of a certain topic), meaning, investigates a specific case in the real-world with context that cannot be controlled and is studied in real time. This chapter is divided into three parts, Research design, Data collection and Methods of analysis, here it will be explained the methodological choices and the context of the research.

2.1 Research Design

This case study is based on the company Pimensor, it has the objective of analysing how SMEs can internationalize, how to choose future markets and supply chain adaptation, more precisely, this study aims to evaluate the possibility of expansion to a new market, analyse and suggest a process of expansion as well as the strategy.

The data used in this study was collected during the internship from documents provided by the company, from interviews with the staff and analysis of the processes in real time by observation, in order to answer the following questions:

- How does an agri-food company choose a new export market? How can an SME export to a new market?
- What strategies can and should be used?
- How will the existing supply chain model adapt to a new market?

The research design method used was descriptive and exploratory, as it aimed to describe a population, situation, or phenomenon accurately and systematically, being able to answer questions about what, where, when and how, but not the why questions. In terms of qualitative design, this study is a case study, it focuses on a company that is Pimensor and on a specific area that is agri-food production. The focus of qualitative techniques is on the discovery and process rather than on generalizability and instead focuses on the particular context of the problem (Tuli, 2010). This way, the study is based on a Portuguese SME that is Pimensor, a company based in Alentejo and produces agri-food products used in traditional Portuguese cuisine, as well as some more modern and innovative products.

2.2 Data Collection

Study based on the company Pimensor in which a 9-month internship was carried out, starting in June 2021 and ending in February 2022.

Data collected in the time indicated above from real-time analysis and documents obtained from the company, such as order frequency, production cycle and order processing, relationship between group companies, production and storage capacity, export policy, variety of products produced and their innovation.

Data collected from various company managers such as the Commercial Director, Production Manager and Warehouse Manager. Daily production sheets, orders and reports provided by them. Data collected from written documents, interviews with teaching staff and company history.

Data collected, analyzed and prepared by me, summary tables of orders made based on daily reports and data collected on site (e.g., production time of packages and respective lids). Interviews carried out in a casual environment and without registration, several were carried out during the internship, data collected were pointed out, however there is no formal and recorded interview.

2.3 Methods of Analysis

The methods of analysis are divided into four phases:

- Identification of the logistics process currently used by Pimensor.

- Collection of data referring to the supply chain process, raw material storage, production time and capacity, storage of finished product and delivery to the final consumer, data in the form of records of daily orders (ex. annex B), observation and monitoring of the process in the factory and testimony from teaching staff. Data also collected from annual consumption reports and government documents.

- Analysis of collected data, creation of order production tables, analysis of warehouse and delivery processes. Analysis of possible choices for internationalization and choice of a possible success, analysis of the characteristics of the chosen country and their consumption habits.

- Interpreting the data, the existing options and choosing the one that best fits the case in question. Elaboration of a strategy proposal that best suits the case of Pimensor.

Chapter 3. Case Study – Pimensor

3.1 Analyse of Pimensor

Pimensor is the biggest pepper producer in the Iberian Peninsula, with exportations to several countries such as Belgium, Japan, France and more. Produces several different sauces, condiments, and marinades for the typical Portuguese cuisine, although they have innovated although the years and now count with a large range of products adaptable to all types of cuisine.

The situation that this study aims to is the possibility of expansion and exportation to a new county, how SMEs can internationalize, the strategies and choice of future markets based on a Agro-food Enterprise. How does a Agro-food enterprise choose a new market for exportation? How can a SME export to a new market? What strategies can and should be used? How will the already existing supply chain model adapt to a new market?

3.1.1 Company Characterization

- Denomination - PIMENSOR - Sociedade Comercial De Produtos Alimentares, Lda; SME – Medium Enterprise
- Location - Estrada de Abrantes, 43, 7400 - 227 Ponte de Sôr, Portugal
- Business Registration - Nº602 C.R.C. de Ponte de Sôr
- Typology - Limited - Share Company. The company's assets are independent of the partners' personal assets and the liability is limited to the share capital (the company's assets are responsible for existing debts).
- Sector - Food – production of seasonings, sauces and condiments.
- Activity - Wholesale trade in other food products, i.e.

3.1.2 History [1]

Incopil was founded over fifty years ago when fourteen out of the twenty national producers of paprika jointed forces. With the entrance of Portugal in the European Union the market of paprika in Portugal suffered a fall of approximately 80% due to the low import prices. In order to continue as a company, Incopil focused on innovation and quality improvement as well as the improvement of the productive capacity.

Now, Incopil is one the biggest producers of condiments and sauces of the Iberian Peninsula, exporting to a various number of countries such as Canada, USA, France, Switzerland, England, Luxemburg, Sweden, Austria, Malta, Belgium and Poland.

The group is formed by two producers, Flor das Hortas (industry quantities) and Incopil (market and retail) and one distributor - Pimensor. From traditional products to innovative and practical flavours, the products created are destined to a wide range of customers.

Based in Alentejo, this company relies on the field to have the best products, with ingredients of excellence, from plantation to the harvesting, everything is monitored and rigorously controlled. The pepper is planted and harvested in an eighty kilometres radius from the factory in order to control the quality and select only the best ingredients for the seasonings, the Pimensor group also counts with the largest set of mechanical dryers in all Iberian Peninsula.

The main product of this company is Pepper paste, being that this is one of the main ingredients used in Portuguese cuisine. Some of the other products produced by this company are paprika, garlic paste, garlic marinade, chili Pepper and chicken sauce.

3.1.3 Description Of The Company Operations

Pimensor is the distributor of the group, Incopil (produces to retail) and Raul Lobato – Flor das Hortas (produces to industry) are responsible for the production. This group sells to retail, industry and resellers, counting with five official brands (Flor das Hortas, Incopil, Sal e Aromas, Flor do Alentejo e

[1] Source: Pimensor catalogue.

Barba Rija) and forty non-official brands (Pingo Doce, Por Si, Marterchef, Amanhecer, Avilude and more) and the top sold products are: 1. Pepper paste; 2. Chicken seasoning; 3. Garlic paste; 4. Garlic Marinade.

The deliveries are made through their own drivers or through a contracted delivery company. If the delivery is international, the system used is FOB – After the supplier makes the order available, the buyer is the responsible for the transportation of the product.

The industry sector represents 34% of sales, while exportation represents 7/8%, they export to Sweden; Luxembourg; Canada; France; Japan; USA; Belgium; Macau; Mozambique; Angola; Switzerland (not direct from Pimensor); Norway; Poland; The Netherlands and Malta.

3.1.4 Quality certification

The group of Pimensor has the FSSC 22000 Food Safety Management System Certification Scheme and the SGQ ISO 9001 quality certification, FSSC 22000 is based on ISO standards and internationally accepted for auditing and certification of the entire supply chain. It uses existing standards ISO 22000 and ISO 22003. And the SGQ ISO 9001 documents processes, procedures, and responsibilities involved in meeting quality policies and objectives.

Based on seven quality management principles, the ISO 9001:2015 standard defines how an organization works to meet the requirements of its customers and stakeholders: Focus on the customer; Leadership; Involvement of people; Process approach; Improvement; Evidence-based decision making; Relationship management.

The certification presented here is enough to be able to sell agri-food products in the Iberian Peninsula and some other countries, however, recently there has been a request for a more specific certification, especially to export internationally, one of the certifications requested is GlobalG.A.P. Pimensor is working towards this goal and this thesis is written with the assumption that this certification was already obtained by Pimensor.

3.2 Warehouse and Production

3.2.1 Warehouse – Pimensor

Orders arrive at the warehouse every morning, where they are then organized and placed at collection points ready to be taken to customers. The warehouse maintains its own stock, when something is missing, it places an order with the production. Orders with a higher number come ready for delivery from production.

The input of each product delivered by the production is given, as well as the output when the order is complete and ready for delivery. The preparation of the order can vary depending on the customer, some orders can be organized in a single pallet, however, some customers have a limit of products per pallet, with different quantities of the same product being allowed, however there is a limit for different types of products, such as the prohibition of overlapping products without a pallet as a means of separation. The order can go on an HT pallet, in colour, or without a pallet.

3.2.2 Production – Incopil

The production receives orders from the warehouse every day and prepares the products according to the orders and delivery date. The production does not only depend on the warehouse orders but also the external ones, that is, orders with a large quantity of products can go directly to production in order to make the pallets, or the warehouse can place orders in order to always have stock of all the products.

The products undergo filling, labelling and palettization. There are several filling chains: seasoning, rehearsal room, manual, buckets, 380 g automatic, labelling and strapping and Piri-piri; and CRP lines: Labelling and Strapping, Seasoning, Labelling and Palletizing. The distribution of work across these lines is based on what each one specializes in, such as quantities, small quantity orders can be carried out on the manual line, however, if this is a high number a different line is used, such as the 380 g automatic line.

3.2.3 Production - Raul Martins Lobato / Flor das Hortas

Flor das Hortas or Raul Martins Lobato, is one of the producing companies of the group (Incopil / Pimensor / Flor das Hortas), specializing in industrial orders - 70 kg Barrels; 130 kg; 250 kg or 1000 kg. It receives orders from Pimensor, this being the distributor, orders are delivered to Pimensor's facilities via an own FH or Pimensor driver, then sent to the customer, or it is used to manufacture a product at Incopil before being distributed. Thus, FH receives orders from Pimensor for two purposes, delivery to the customer or delivery to Incopil in order to be processed.

3.3 SWOT – Pimensor

SWOT– Strengths, Weakness, Opportunities and Threats - is used to identify the strengths and weakness of a company as well as to identify potential threats and opportunities (Namugenyi et al., 2019). While the strengths and weakness are internal and are under the control of the company, the opportunities and threats are external. A SWOT analysis shows the top strengths, weakness, opportunities and threats organized by two-by-two grid.

It is necessary to have a complete analyse of the company to strategically plan the overall path of a company and decide the strategies that are going to be used to achieve the goals of the company. The SWOT analysis gives the opportunity to understand all the different strengths and weakness of a company this way it can help improve business operations, create new opportunities for business and improve efficiency. The data here analysed was collected by informal interviews with some personnel, such as, commercial director, logistics and food safety engineers (Fig.1).

Strengths	**Weaknesses**
• One of the biggest peppers producers in the Iberian Peninsula. • Innovation and diversity of products.	• 80% of products are not international. • Low experience in the international market.
Opportunities	**Threats**
• Possibility to enter a new market. • Creation and developments of new products.	• One big competitor with a various range of products.

Fig. 1 – SWOT analysis of Pimensor.

The topic, new certification, presented in the analysis is related to the bigger companies now requiring a different and more specialized certification that Pimensor does not have. – could be considered a threat to the company as it presents itself right now, however, this thesis is written with the basic assumption that the group Pimensor will be able to achieve the certification mentioned since it has been changing its factories and all facilities to match the required by this certification.

Pimensor is one of the biggest pepper producers nationally and internationally, it is always looking to innovate and create new products to reach new types of clients. With the low level of experience in the international market, Pimensor is trying to expand its business by creating new products and trying to reach new markets. The current big competitor, that this business has, only produces two products similar to Pimensor, however, the competitor is extremely well successful and as a wide range of products.

3.4. Porter's Five Forces – Pimensor

The Five Forces of Porter, developed by Michael E. Porter (fig. 2), is based on the assumption that there are 5 different forces that determine the competitive intensity and attractiveness of a market, this would help to determine where the power lies in a company (Bruijl, 2018).

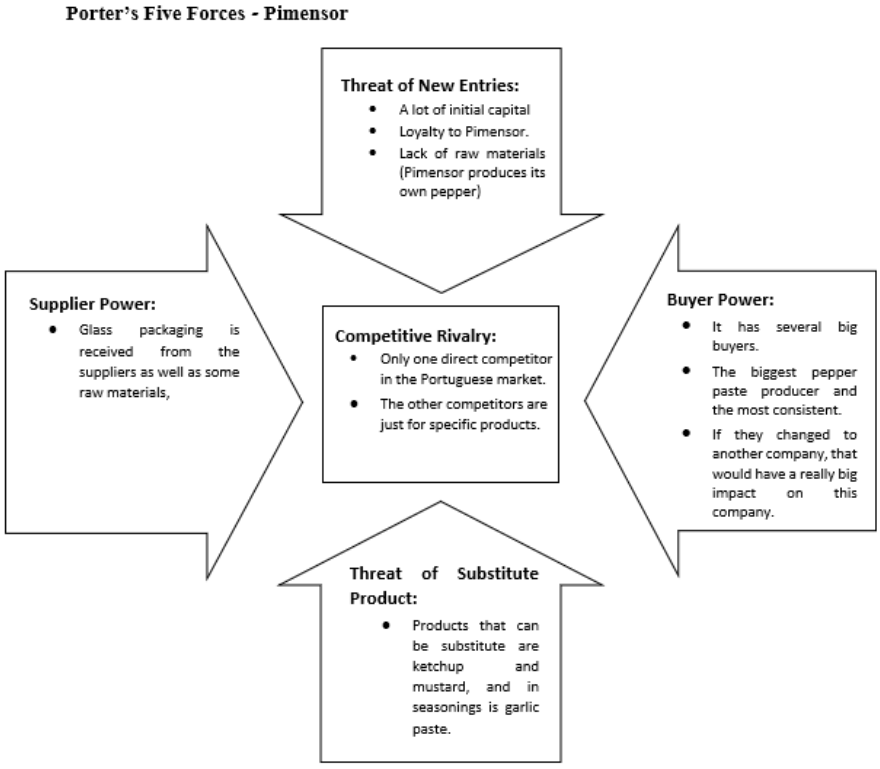

Fig.2 – Porter's Five Forces - Pimensor

With the understanding of the weakness and strengths of a company, it is possible to know how and what to improve, as well as, the possible difficulties and barriers that a company will need to overcome.

1. Supplier Power – Plastic packaging is made internally, only glass packaging is received from the suppliers and some raw materials, most of these materials can be bought from several different suppliers, it would be fairly easy to change suppliers without a significant increase in price.

2. Buyer Power – This company has several big buyers, is the biggest pepper paste producer and the most consistent one, even if the buyers tried to change to another supplier, it would be really difficult since there is not another pepper producer like Pimensor or with the same products. Although if they were to be successful in changing to another company, that would have a really big impact on this company.

3. Competitive Rivalry – There is only one direct competitor in the Portuguese market and does not reach Pimensor standards. The other competitors are just for specific products and don't cause a serious risk. The main products produced by the Pimensor group are traditional Portuguese sauces, seasonings and marinades so it would be extremely hard to find them being produced in another country.

4. Threat of Substitution – The only products that can be easily bought from other company in sauces are ketchup and mustard, and in seasonings is garlic paste, and these are only three products from the range Pimensor offers.

5. Threat of New Entry – To be able to enter this market a new company would need a lot of initial capital and would have a hard time to get customers since many of them are loyal to Pimensor. The capital requirements, lack of raw materials (Pimensor produces its own pepper) and loyal customers will be hard barriers to pass. And even if another company was able to start producing pepper related products like Pimensor, it would take time to reach the same level their products already have from years of experience.

3.5 Possible new market – Where to go?

When choosing a country to expand to, it is necessary to have a lot of factors into account, firstly, with the objective of minimizing the costs, the only countries considered were the European Union countries, due to the proximity and economic benefits.

The countries with resellers and/or buyers are automatically removed from the list of possible new markets, something to also consider is the economic factors, such as the currency used by the country and the presence of economic agreements. The countries excluded due to already having resellers and/or buyers are France; Belgium; Holland; Luxembourg; Malta; Sweden and Poland (also does not have the same currency as Portugal), the countries excluded due to economic reasons are United Kingdom (Brexit – the UK wants to regain its power and supremacy, it means more restrictions in international commerce and flow of people, goods, services and capital); Croatia, Denmark, Bulgaria, Romania, Czech Republic and Sweden don't use the same currency as Portugal (Euro - €); Cyprus and Ireland are not in the Schengen area ("no borders" , it means people are free to move inside this designated area with less restrictions and less tariffs) (table 1).

From the countries listed above, that were not already excluded, only four (Greece, Italy, Spain and Slovenia) are considered Mediterranean, and while Portugal is not part of this geographical area it is considered Mediterranean due to its climate, culture, cuisine, and other. The products produced by Pimensor are mainly Portuguese traditional sauces and marinades, products that have been used by generations and are deeply rooted in the traditional cuisine, being also really similar to other Mediterranean products and cuisine. Due to the nature of this countries, their climate and culture are considered similar, consequently they have a cuisine considerable close to the Portuguese one, so these will be the ones considered as a possible new market, however, the company only wants one.

Something else to consider when expanding, internationalizing and/or exporting to a new country and when choosing the said country is to consider all costs, including transportation (related to time and distance), tariffs, etc. In this category is fairly easy to consider that Greece, Italy and Slovenia are at a considerable distance from Portugal, not only would the transportation require more time, it would also translate into a bigger cost. Considering the factors like costs, economy, cultural and cuisine similarities, distance and psychic distance - since the lesser the distance, in both factors, may mean a more successful internationalization – the country chosen for the expansion of this company is Spain.

3.6 Analyze of the chosen country – Spain

3.6.1 History

From the Iberians to the Celts, Visigoths and Moors, Spain had an origin based on different peoples and occupations, always divided into several provinces, one of which originated Portugal, which was

formed as an independent kingdom and was definitively granted by Pope Alexander III to 23 of May 1179. The 16th and 17th centuries were based on the construction and the height of the Spanish empire, the Spanish monarchy was born with the union of Fernando II of Aragon and Isabel of Castile on May 4, 1493. In 1873 the First Spanish Republic was proclaimed, this lasted eleven months and had 5 presidents, the Bourbon restoration in 1874 ended with the first republic. The Second Spanish Republic was proclaimed on April 14, 1931, with Niceto Alcalá-Zamora as its first president. Political instability resulted in a failed coup d'état that gave rise to the Spanish Civil War (1936-1939), this war was won by the rebels and gave rise to Franco's government that ended with his death in 1975.

Spain is currently a constitutional, democratic and parliamentary monarchy, with a head of government (prime minister) and a head of state (monarch) and is composed of 17 autonomous regions.

3.6.2 Economy

It is noteworthy that Spain was one of the richest and greatest empires in history, and the colonization of America began on September 24, 1493 with the arrival of Christopher Columbus in the Antilles. Despite some setbacks and political and economic instabilities, Spain is still considered a great economy.

The Spanish Civil War contributed in large part to a significant loss of population and its productive capacity, scarcity gave rise to hunger and misery, which only got worse with the Second World War. With the Cold War and its strategic position, Spain received economic assistance in 1951 from the United States of America in exchange for maintaining military bases on Spanish territory, this alliance opened up the Spanish economy and ended its international isolation.

In 1957, with the help of the World Bank and the International Monetary Fund, Spanish economic policy was restructured and the resulting economic development in the 1960s and 1970s was remarkable. With the entry of Spain into the EU, in 1986, there were some changes in the productive structure of Spain due to: “(1) the need for greater opening up to international markets, as a means to the Spanish economy's full integration into the international context, (2) the restructuring of several sectors through an industrial modernization policy in the mid-80s, which at the end of the nineties was still taking place in industries such as shipping, mining or iron and steel; (3) the need for improvement in the productive efficiency of manufacturing in order to compete in a highly competitive market with

no barriers to partners by increasing the size of firms in order to achieve economies of scale, and by improving technological capacities." (Fonfría et al., 2005).

Since Spain joined the European Union, this country has been increasing its GDP (Barata & Diogo, 2000) meeting the EU average. From 1978 onwards, Spain, with European influence, modernized its economy, that is, the economy that was previously based on agriculture was now based on services, there was an expansion of the industrial network and, consequently, a migration of the population from the areas. more rural to urban areas. For this change to be possible, the European Union made available various economic and political supports, such as the European Social Fund (Fisac-Garcia & Moreno-Romero, 2015). With this modernization, the industry began to expand and bet on international markets, in which there was a notable growth, whereas in 1985 it was 20%, the export/GDP ratio in 1999 reached 50%. The creation of local networks of social organization and the beginning of legislative decentralization related to social issues (90s) were events that strongly influenced the country's business panorama, and in 1992 the central government was no longer the only legislator, as, the autonomous communities acquired the capacity to legislate cooperatives in their territory. Some strategic actions were also established, such as, for example, congresses and a reference of good practices in the international sphere.

The approval of the Social Economy Act, which was not conceived with the purpose of regulating the sector, but rather "to define the concept of the social economy, identify the entities that compose it and describe some measures to promote and develop the field." (Fisac-Garcia & Moreno-Romero, 2015), made Spain the first European country to pass a law on the social economy.

Currently, Spain is influenced/characterized by the 17 Autonomous Communities, thus, Spain is considered a federal state characterized by the balance of power, central and regional government, not least because many of the regions have normative powers that provide them with the capacities to pass national legislation, according to the needs of each region. The unemployment rate is still high in Spain and the widespread use of temporary employment contracts hinders social growth in Spain, and it is also worth noting that school dropout is considerably high, as is depopulation and aging in rural areas, all these factors contribute to an increase in the challenges and barriers to social and economic development in Spain.

3.6.3 The Pandemic Situation

The pandemic situation began in late 2019 and continues to this day, although the process of vaccination and immunization of the world population started in late 2020/early 2021, today's reality is a little different from what it was before, especially the world economy.

Spain was one of the countries most affected by Coronavirus, especially in the first wave, in 2020 the GDP contracted an average of 10.8% and in 2021 it is still 9.4% below the level of 2019, public finances were also heavily affected, 2020 the public debt deficit increased to 120% of GDP and around 85% of public spending that year was related to the pandemic (BANCO DE ESPAÑA, 2021). Of the most advanced countries, Spain's GDP is one of the worst trajectories since the beginning of the pandemic. Not all sectors were affected equally, however sectors dependent on social interaction had greater losses, such as hotels. This crisis was especially difficult for self-employed workers and Small Medium Enterprises, having also a greater impact on temporary workers and younger people. Despite all the economic aid coming from abroad, the Spanish market is still fragile, the support measures that were initially provisional were extended so that there is no premature withdrawal that could be harmful.

Due to the good functioning of the aid rules imposed at the beginning of the pandemic, the Spanish government approved, in March 2021, new aid, in order to protect the most vulnerable companies, workers and families. The measures adopted by the different financial authorities helped to sustain some of the effects of the crisis caused by the pandemic. At a national level in Spain and even at a global level, economic activity had a substantial decrease and despite being in reoccupation, there is still a long way to go.

3.6.4 Relation Portugal – Spain

The relations between Portugal and Spain have always existed, however, it can be considered the century XII the starting point, since it was in this period that Portugal was constituted as an independent political unit.

One of the proofs of this relationship is Decree-Law nº 465/70 – Agreement for economic cooperation between Portugal and Spain, signed in Madrid in 1970, here the governments of Portugal and Spain reaffirm the friendship between the two nations and the desire to continue /improving economic cooperation between them.

With entry into the EEC (European Economic Community) in 1986, the Iberian market flourished and not only improved relations between two countries – economic, political and social – but also projected Portugal and Spain into the world. After 1986, Spain became one of Portugal's main suppliers and recipients of exports. The relations of this region, which is the Iberian Peninsula, develop through the logic of proximity and territorial adjacency between economies (Reis, 2002).

3.7 Consumption statistics in Spain

In order to understand the possible expansion to Spain, it is necessary to characterize the Spanish market and its consumption habits, data was taken from "Informe Del Consumo de Alimentación en España 2020"(Goberno de España – Ministerio de Agricultura, 2021). The categories analysed are Preserved fruits and vegetables; Fresh vegetables; Spices and condiments; Salsas; Pre-prepared dishes.

Consumption of preserved fruits and vegetables grew in 2020 by around 13.4% in volume, with an average price of €2.21/kg. The average expenditure per person in the year was €32.05, 14.5% more than in 2019. Average *per capita* consumption increased by 13.2%, thus remaining at 14.49 kg per year per person (Fig. 3). In the fruit and vegetable category, the product with the highest volume is canned vegetables, which account for 62.3% of the total volume.

Domestic Consumption of Preserved Fruits and Vegetables

	Consumo doméstico de T.Fruta&Horta.Transf	% Variación 2020 vs. 2019
Volumen (miles kg)	669.924,65	13,4 %
Valor (miles €)	1.481.731,65	14,8 %
Consumo x cápita (kg)	14,49	13,2 %
Gasto x cápita (€)	32,05	14,5 %
Parte de mercado volumen (%)	2,10	0,02
Parte de mercado valor (%)	1,87	0,01
Precio medio (€/kg)	2,21	1,2 %

Fig. 3 – Domestic Consumption of Preserved Fruits and Vegetables.
Source: '*Informe del Consumo de Alimentación en España 2020*'

As for the consumption of fresh vegetables, the purchase of peppers grew 18.3% compared to 2019. In 2020, peppers resulted in around 23.9% more revenue than in the previous year, the average price was €2.03 per kg, and the average consumed per person was 5.69 kg of pepper per year (Fig. 4).

Domestic Consumption of Peppers

	Consumo doméstico de Pimientos	% Variación 2020 vs. 2019
Volumen (miles kg)	262.835,89	18,3 %
Valor (miles €)	534.441,74	23,9 %
Consumo x cápita (kg)	5,69	18,0 %
Gasto x cápita (€)	11,56	23,6 %
Parte de mercado volumen (%)	0,82	0,05
Parte de mercado valor (%)	0,67	0,05
Precio medio (€/kg)	2,03	4,7 %

Fig. 4 – Domestic Consumption of Peppers.
Source: '*Informe del Consumo de Alimentación en España 2020*'

In 2020, the market for condiments and spices grew by around 27.4%, and their average price rose 1.5% to €21.65 per kg, with the average consumption per person being 0.16kg and €3.43 per year (Fig. 5).

Domestic Consumption of Spices and Condiments

	Consumo doméstico de Especias Y Condimento	% Variación 2020 vs. 2019
Volumen (miles kg)	7.323,26	27,4 %
Valor (miles €)	158.519,78	29,4 %
Consumo x cápita (kg)	0,16	27,1 %
Gasto x cápita (€)	3,43	29,1 %
Parte de mercado volumen (%)	0,02	0,00
Parte de mercado valor (%)	0,20	0,02
Precio medio (€/kg)	21,65	1,5 %

Fig. 5 – Domestic Consumption of Spices and Condiments
Source: '*Informe del Consumo de Alimentación en España 2020*'

There was a 16.9% growth in the purchase of sauces, with the average price rising 1.3%, the consumption *per capita* was €11.88 per person in 2020, 18.1% more than in the year before (Fig. 6).

The most significant growth registered in the year 2020 was in the month of April, it was consumed 48.5% more kg than in the previous period (Fig. 7).

Domestic Consumption of Sauces

	Consumo doméstico de Salsas	% Variación 2020 vs. 2019
Volumen (miles kg)	142.830,50	16,9 %
Valor (miles €)	549.141,76	18,4 %
Consumo x cápita (kg)	3,09	16,6 %
Gasto x cápita (€)	11,88	18,1 %
Parte de mercado volumen (%)	0,45	0,02
Parte de mercado valor (%)	0,69	0,02
Precio medio (€/kg)	3,84	1,3 %

Fig. 6 – Domestic Consumption of Sauces
Source: '*Informe del Consumo de Alimentación en España 2020*'

In the category of pre-prepared dishes, there was an increase of 11.3% kg consumed compared to the previous year, 2019, *per capita* consumption was €73.54, which is an increase of 12.7% (Fig. 8). Canned prepared dishes represent 11.9% of the volume and 15.9% of the total turnover of the pre-prepared dishes market (Fig. 7). The type of pre-prepared canned dish that has the highest proportion of volume, 42.8%, corresponds to canned vegetables, however in terms of values it only accounts for 29.5% of the value obtained.

Monthly Evolution of Total Purchases (million kg) and Average Price (€/kg) - Sauces

Evolución mensual de total compras (millones kg) y precio medio (€/kg)

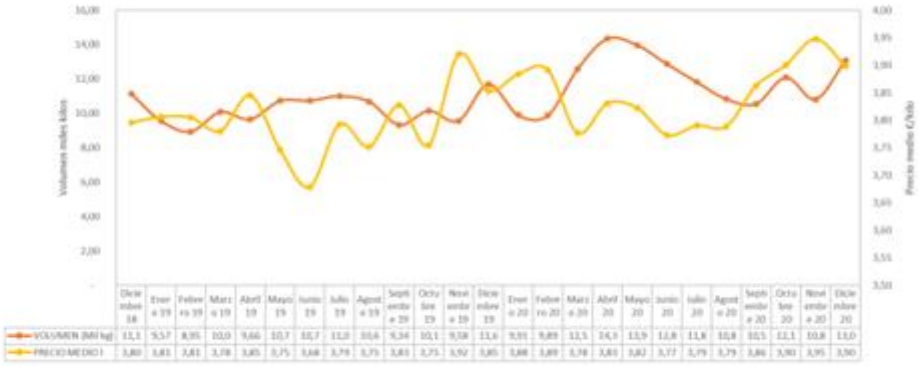

Fig. 7 – Monthly Evolution of Total Purchases (million kg) and Average Price (€/kg) - Sauces
Source: '*Informe del Consumo de Alimentación en España 2020*'

Domestic Consumption of Pre-prepared Dishes

	Consumo doméstico de Platos Preparados	% Variación 2020 vs. 2019
Volumen (miles kg)	778.960,52	11,3 %
Valor (miles €)	3.399.765,73	13,0 %
Consumo x cápita (kg)	16,85	11,1 %
Gasto x cápita (€)	73,54	12,7 %
Parte de mercado volumen (%)	2,44	0,00
Parte de mercado valor (%)	4,28	-0,01
Precio medio (€/kg)	4,36	1,5 %

Fig. 8 – Domestic Consumption of Pre-prepared Dishes
Source: '*Informe del Consumo de Alimentación en España 2020*'

3.7.1 Demography

In order to understand the possible clients in Spain is necessary to identify the demography of these clients (Fig. 8 and 9). The biggest consumer of fresh vegetables, in this case, the biggest consumer of pepper, per year are retired people (68% above average) independent adults (56% above average) and adult couples without children (52% above average). While in processed fruits and vegetable the biggest consumers are the households where are older children and adults without children, the biggest consumers *per capita* per life cycle are the independent adults (21.84kg).

In the category of spices and condiments the biggest consumers are adults with no children or couples with older children, young adults are the smaller consumers, however, it was this group that most intensified the purchase of spices and condiments (75,15% compared to 2019). There can be also noted that the autonomous communities that are considered the most intensive consumers of spices and condiments are the Balearic Islands, region of Murcia, Andalusia, Galicia, Asturias and the Canary Islands.

As for sauces and pre-prepared dishes, the biggest consumers are couples with children no matter the age, in sauces the biggest consumers are young independent adults (5,35kg per person per year), and the monetary class for both, sauces and ready-made meals, are medium-high, while in the sauces category is also mentioned the medium-low monetary class, in pre-prepared dishes is considered the high monetary class.

3.7.2 Distribution Channels

The distribution channels help to understand where the products consumed are sold and how should Pimensor or any other company work to place their products on the Spanish market. The main distribution channel is the supermarket and self-service, in all categories this channel has the biggest percentage (Fig. 10 to 14).

The discount store and hypermarket are the runners up, being that they are always on the top 3 of the main distribution channels in 4 out of 5 categories (hypermarket, supermarket and self-service, discount store, traditional store, regional channels, e-commerce), only the category of fresh vegetables counts with R. channels (regional channels) and traditional stores in the top 3 distribution channels. It's easy to assume that the main distribution channels that Pimensor should focus on are the supermarkets, discount stores and hypermarket. These platforms would place the product available to more people that buy similar products, it could mean more sales and a bigger possibility of success.

3.7.3 Briefing of the statistics

Although the products produced by the Pimensor group are not the same as those consumed in Spain, the data analysed above demonstrates the importance of peppers, preserved fruits and vegetables, sauces and condiments, as well as, pre-prepared dishes in the Spanish market. Most of the products produced by Pimensor are sauces and marinades based on peppers and garlic, which are widely consumed in Spain and are part of the diet of most of the Spanish population.

According to the data analysed, the best distribution channels would be the supermarket, the discount store and hypermarket, since these are the main distributers of products similar to what Pimensor sells. The targeted market would be, based on the study mentioned, independent adults, adults with no children and couples with older children.

Pepper paste is already used in Spain, Portugal uses "massa" (the difference is the appearance and the consistency of the sauce), both products are highly similar and can be easily replaced by the other. The other products produced and sold by Pimensor can be easily categorized as sauces (ex: hot sauce) or pre-prepared dishes (ex: curry), these types of products are consumed internationally and are not considered national and exclusive to the Portuguese cuisine, this means that most of the products on Pimensor's catalogue could be internationalized.

Chapter 4. Analyse of Results

4.1 Expansion/Export Method

In a supply chain, suppliers, manufacturers, retailers and distributors work together to acquire raw materials, transform these materials into the final product and, finally, deliver this product to consumers, via distributors or retailers.

The Production Planning and Inventory Control Process and the Distribution and Logistics Process provide the basic framework for converting and moving raw materials into final products (fig.15). While the production process covers the entire manufacturing process, from obtaining raw materials, design, material control, etc., inventory control has to do with the design and management of procedures and product storage, whether as raw material, processed or final product. The logistics and distribution process covers the process of collection and transport from the warehouse to distributors/retailers or consumers.

The factors to consider that affect costs are: cost minimization, sales maximization, profit maximization, inventory investment minimization, return on investment maximization.

Pimensor works “just in time” (Salunkhe & Shinge, 2018) in order to not keep too much stock, and this way, save money, also, in any case of sale to supermarkets, as already is the case nationally and in several countries of exportation, the buyer is responsible for the transport of the goods from the moment it is given as ready for pick-up from the warehouse, thus minimizing transport costs for the company.

To better understand the production efficiency of the group belonging to Pimensor, production tables (of 5 orders) were created to see the time required for an order to be ready for delivery (Annex A). Although the packaging production time is also included, since these are made for stock and not for orders, they end up not increasing the delivery time of the orders, it should also be mentioned that the packaging produced at Pimensor is only plastic packaging, glass containers and buckets are purchased from external suppliers.

The five orders used for references are:

Client	Time of Filling and CRP	Time of Packaging Manufacturing
Lusitano	39 hours	6 hours and 28 minutes
ABC cork	24 hours and 20 minutes	8 hours and 4 minutes
Ferma	15 hours and 15 minutes	8 hours and 12 minutes
360 food's	7 hours and 50 minutes	----------
Biedronka	61 hours and 35 minutes	248 hours and 50 minutes

Table 2 – Time to complete orders.

The average filling and CRP time, as per the table above, is 29 hours and 12 minutes per order, and the average packaging manufacturing time is 54 hours and 12 minutes. If the packaging production time is not accounted for, as it does not affect orders directly, it is possible to conclude that orders would only need 4 working days to be ready and Pimensor requires 5 working days to be able to deliver each order. However, when analysing the table, it is possible to verify that 2 of the 5 orders could not be ready in 5 days, consequently, large orders need a longer production time and more time between the request and delivery. However, orders with a higher number but with a certain frequency can be ready for collection at a date closer to the request of the same due to the order forecast.

The two possibilities of expansion to Spain are, to export directly, to send sellers to Spain to attract customers and to have a transport ready to deliver these orders, being that, possibly, this transport would have to be daily, or, to export via supermarkets, which makes the super/hipper market responsible for the transportation of the products and the marketing.

The standard Supply Chain Process is:

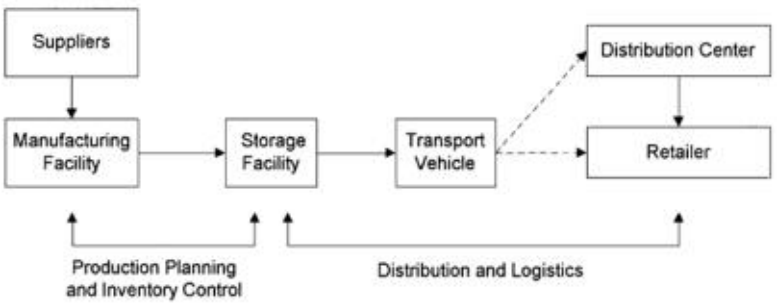

Fig. 17 – The Supply Chain Process

Source: M. Beamon, B. (1998). Supply Chain Design and Analysis: Models and Methods. *International Journal of Production Economics*, 283.

4.1.2 Export by supermarkets

After a survey and collection of possible customers, two supermarket chains located in Spain showed interest in working with Pimensor, both stores interested have more than 200 locations in Spanish territory spread throughout the country. Another way of perceiving the possible viability of this export method, comparing it with the alternative, is to analyse the advantages and disadvantages associated with both existing possibilities.

Benefits:

- Diverse number of locations spread across Spain, would not be restricted to one zone.
- Minimization of transport costs.
- Marketing the products on their own without the need for salespeople.
- Periodic and stable orders as it is to keep stock and not out of necessity.

Disadvantages:

- Dependent on larger entities.

The supply chain designed for this export method is the following:

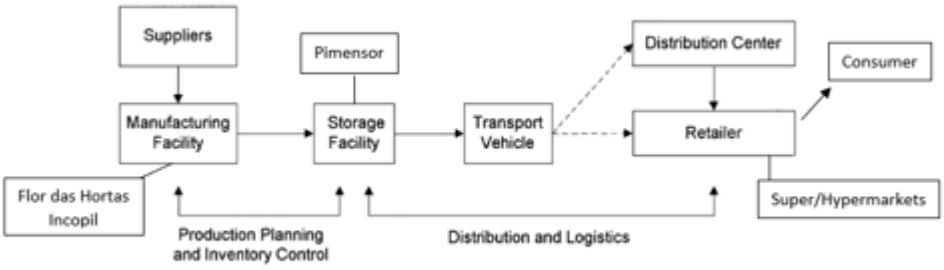

Fig. 18 – Supply Chain for Super/Hypermarkets

This method of exportation translates into reduced costs for Pimensor, as the buyer (super/hyper markets) is responsible for transporting the Pimensor group's warehouse to its stores in Spain and would also be responsible for marketing and distributing the products in the country, and it would also be easier to reach all areas of the country and at no additional cost to Pimensor.

4.1.2 Export by sellers

Exporting by sellers shows more disadvantages than advantages for the group to which Pimensor belongs, which are:

Benefits:

- Report directly to Pimensor.
- Can reach more businesses/regional stores and small markets.
- More autonomy.

Disadvantages:

- Multiple orders at any time.
- Transport and seller associated costs.
- They work by areas and the more areas there are, the more salespeople are needed.
- Sales volume does not reach the volume of a network of super/hyper markets.

The supply chain designed for this export method is as follows:

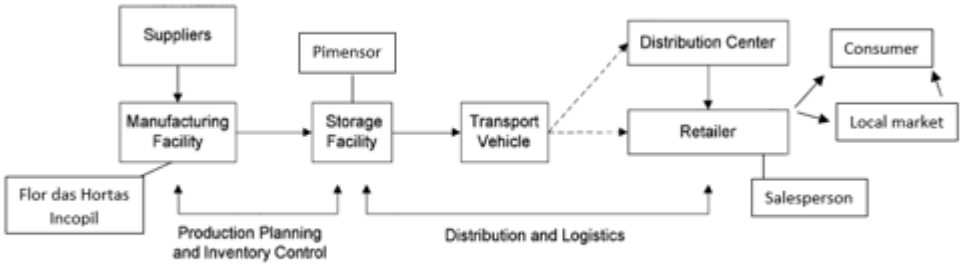

Fig. 19 – Supply Chain for Salespeople

As can be seen, in addition to having more intermediaries, it can also take longer to reach the final consumer, in addition to the fact that, as stated in the advantages and disadvantages, the level and number of orders varies, often being a higher number of orders but all smaller quantities.

In addition to the transport costs associated with the sellers, there would also be transport costs associated with the delivery of orders, as these would have to be delivered in Spain by the company's drivers/distributors. In short, the costs, ordering time, variability and impossibility of forecasting orders, as well as the reduced number of possible sales, do not favour this export method.

4.2 Implementation of the Supply Chain System

The first phase of implementing a product in a new market is to analyse it, the potential customers, the possibility of integration in the market and possible success, etc. After this analysis, presented above, it was possible to conclude that Pimensor's products are compatible with the Spanish market and there is a strong possibility of being successful. The export method chosen is to export through supermarkets, it is necessary to analyse how to implement it in this market already analysed and with potential. With the contact already established between Pimensor and the interested supermarket chains, the process of exporting and integrating products into the Spanish market has yet to begin.

The initial phase consists in the adaptation, when the products appear in this new market, they will be something different and new that will have to be discovered by consumers. It is predictable that the products will not be something of immediate success, but of discovery and increasing sales. Thus, starting with smaller orders and with more time between them with the purpose of entering the Spanish market, and after the products are well established it would be expected the orders to grow, not only in quantity but also in number, as in being more frequent.

It's possible to make an estimative of the time required to reach full internationalization. With the first step being made when this thesis started, September 2021, where the data was collected and the supermarket chains were contacted, it would be expectable to start the exportation of the products around November or December 2021, since this first order would be the first contact of the Spanish population with these products. From December 2021 to June 2022 the products would start to be known and used in Spain, however, there would still be small orders and more spaced. To fully reach success and to have these products as a part of the Spanish cuisine and day-to-life it would take, probably, more than a year, to reach all the regions, present all the products and integrate them.

With the products already established and well-integrated, there may be a need to increase production units in Portugal or create the first international production unit, in this case, in Spain to carry out all the orders requested by this new market while maintaining the quality of the products and the satisfaction of all previous customers. This last step can be predicted to 2023, it takes time to integrate such products on a new market and to make them a part of the everyday life, this last phase would only happen when the Spanish market really accepts and integrates the products sold by Pimensor and actually require the increase of production that justifies taking this step.

The predictions made here can be changed and affected by a various number of reasons and variables such as the interest in the product, success of exportation, willingness to try the product and integrated in the day-to-day life, among others.

Conclusions

With the opportunity to expand, the objective of this project was to choose the country, analyse the possibility of success and find the most adequate method of expansion to this specific case. Although the logistic process has been studied over the years by different authors (Accorsi et al., 2018; Odlin, 2019), the need to explore and study this topic on different size company's such as SMEs, different countries, and different areas of activity still exists. Depending on the type of activity and product carried, several elements must be considered when analyzing supply chains.

Because this research is based on a single case study, Pimensor Lda., it has some limitations. It is a specific food-related product with its unique set of conditions and features; it is not a generic product or a "one-size-fits-all" model of internationalization and supply chain adaption. Future research focusing on agri-food items and small-medium businesses can help researchers gain a better understanding of this niche industry, as well as how the size of a company might influence or change the strategy and actors involved in a new market entry.

Pimensor is the largest pepper grower in the Iberian Peninsula, with exports to Belgium, Japan, France, and other countries. Produces a variety of sauces, condiments, and marinades for traditional Portuguese cuisine, though they have evolved over time and now provide a wide range of goods that may be used in a variety of cuisines. After the data analyse and the country chosen to expand being Spain is worth noticing that although the Pimensor group's products are not the same as those consumed in Spain, the data analysed above illustrates the importance of peppers, preserved fruits and vegetables, sauces and condiments, as well as pre-prepared foods in the Spanish market (Goberno de España – Ministerio de Agricultura, 2021). The majority of Pimensor's products are sauces and marinades made with peppers and garlic, which are commonly consumed in Spain and are part of the diet of the majority of the population. In the case of Pimensor, this company chooses and choose a market that best suit the products they are trying to export, whether because of cultural, linguistic, culinary similarities, among others. When considering a new country to expand there is a range of different factors that may influence this choice, each company considers the factors that are the most important and related to their business, being a food company it will, probably, choose a country with food similarities, or if it is tech company with a innovative and modern product, it will try to choose a country that is more developed and with a population that shows interest in this type of products.

In the case in question, after choosing only countries that did not already have any business with the Pimensor group, countries with similar culinary characteristics were chosen, thus arriving in Spain.

In order to confirm the choice made, an analysis was carried out on consumption and demography in Spain, thus confirming the possible success of the export. For a company to go international it has to choose a way to do it, a strategy, some possibilities are joint ventures - two or more firms join together and share revenue and costs, licensing – the right to intangible property is licensed to another entity, and more, however, recently relations between SMEs and Multinationals have been increasing so that they can export or internationalize and be successful, minimizing costs (Odlin, 2019), for this group of business SMEs, this last option has been a great way of expanding.

The existing supply system would not be directly affected due to the internationalization method chosen, however, there would be a change in terms of orders and storage needs. With a successful expansion, the production capacity and product storage would need to be increased in order to satisfy all orders, and an expansion in terms of infrastructure may be necessary, it should be noted that this change would not be necessary at the outset, as the orders would have a production period, and so with advance planning would be doable, as well as, with operational performance the firm has the flexibility to accommodate unexpected orders (Bowersox et al., 2002).

It is clear that with the passage of time and, assuming that the success of the products, the more frequent and larger orders would lead to the need to adapt the infrastructures and a probable increase in staff, it is also worth noting that despite these possible scenarios, the Pimensor group already has the necessary infrastructures, and these may only need to be adapted and remodeled in order to match the needs that will come. The two possible strategies analyzed in this work were by sellers and by relationship with multinationals. Although both are valid options and with possible success, they have advantages and disadvantages, and in the case analyzed, the relationship with multinationals was chosen, which has the greatest number of advantages, including larger and more predictable orders, as well as the fact that supermarket chains are the primary distributors of products similar to those sold by Pimensor (Goberno de España – Ministerio de Agricultura, 2021). This method of using partnership strategies is commonly used by SMEs to compete in the global market (Caiazza, 2016), and it’s also a good strategy for this case in particular, because the buyer (super/hyper markets) is responsible for transporting the Pimensor group's warehouse to its stores in Spain, as well as marketing and distributing the products in the country, this method of exportation results in lower costs for Pimensor, and it is also easier to reach all areas of the country at no additional cost.

Finally, it is encouraged to expand this topic of research, the analyse and study of SME’s internationalization is needed and especially in different areas of business, just like agri-food related business such as Pimensor, that is not often talked about. Considering that SME’s represent a big part

of business in Europe, it is important to focus on this niche, the study's already published focused on multinationals, do not represent or can be adapted to SME's.

References

Accorsi, R., Cholette, S., Manzini, R., & Tufano, A. (2018). A Hierarchical Data Architecture For Sustainable Food Supply Chain Management And Planning. *Journal of Cleaner Production*, *203*, 1039–1054. https://doi.org/10.1016/j.jclepro.2018.08.275

Anca, V. Blaga, L. (2019). Logistics and Supply Chain Management: An Overview. In *Studies in Business and Economics*, 14(2), 209–215. https://doi.org/10.2478/sbe-2019-0035

BANCO DE ESPAÑA. (2021). INFORME ANUAL 2020. *Publicaciones Del Banco De España.*

Barata, I., & Diogo, A. (2000). Breve Caracterização da Economia Espanhola. *GEPE - Gabinete de Estudos e Prospetiva Económica do Ministério da Economia.*

Bowersox, D. J., Closs, D. J., Cooper, B. (2002). Supply Chain Logistics Management. (9th ed.). The McGraw-Hill/Irwin Series Operations and Decision Sciences.

Bruijl, G. (2018). The Relevance Of Porter's Five Forces In Today's Innovative And Changing Business Environment.

Caiazza, R. (2016). Internationalization of SMEs in high potential markets. In *Trends in Food Science and Technology,* 58, 127–132. https://doi.org/10.1016/j.tifs.2016.10.002

Caiazza, R., Volpe, T., Audretsch, D. (2014). Innovation In Agro-Food Chain: Policies, Actors And Activities. *Journal of Enterprising Communities*, *8*(3), 180–187. https://doi.org/10.1108/JEC-06-2014-0009

Child, J., Karmowska, J., Shenkar, O. (2022). The Role Of Context In SME Internationalization – A Review. In *Journal of World Business*, 57(1). https://doi.org/10.1016/j.jwb.2021.101267

Fernandes, D. W., Moori, R., Filho, V.. (2018). Logistic Service Quality As A Mediator Between Logistics Capabilities And Customer Satisfaction. *Revista de Gestao*, *25*(4), 358–372. https://doi.org/10.1108/REGE-01-2018-0015

Fisac-Garcia, R., Moreno-Romero, A. (2015). Understanding social enterprise country models: Spain. Research Group on Sustainable Organizations, Universidad Politécnica de Madrid.

Fonfría, A., Alvarez, I., Guardia, C. (2005). Structural Changes And Competitiveness In Spanish Manufacturing Industry: Analysis Of Some Relationships. European Comission - Complutense University of Madrid.

Gaspar, P., Elias, M., Pereira, C., Andrade, L., Pinheiro, R., Paiva, T., Soares, C., Gândara, J., Henriques, M., Laranjo, M., Potes, M., Santos, A., Santos, F., Silva, P., Nunes, J., Coutinho, P., Carneiro, J.,

Várzea, J., Velho, M., Matias, J. (2018). Caracterização e Análise dos Processos Produtivos em Empresas Agroalimentares. *"Programa Operacional Fatores de Competitividade" – COMPETE.* www.maisagro.pt.

Goberno de España (2021). Informe Del Consumo de Alimentación en España 2020. *Ministerio de Agricultura, Pesca y Alimentación.*

Kubíčková, L., Toulová, M. (2013). Risk Factors In The Internationalization Process Of SMEs. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, *61*(7), 2386–2387. https://doi.org/10.11118/actaun201361072385

Kunday, Ö., Şengüler, E. (2015). A Study on Factors Affecting the Internationalization Process of Small and Medium Enterprises (SMEs). *Procedia - Social and Behavioral Sciences*, 195, 975–980. https://doi.org/10.1016/j.sbspro.2015.06.363

Mansidão, R. (2019). Logística, Competitividade E Desempenho-Uma Análise Empírica Nas PMES. *Organização de empresas- Escola Superior de Tecnologia de Setúbal.*

Martínez-Román, J., Gamero, J., Delgado-González, M., Tamayo, J. (2019). Innovativeness And Internationalization In SMEs: An Empirical Analysis In European Countries. *Technological Forecasting and Social Change*, *148*. https://doi.org/10.1016/j.techfore.2019.119716

Masum, M., Fernandez, A. (2008). Internationalization Process of SMEs: Strategies and Methods. *Mälardalen University School of Sustainable Development of Society and Technology*

Namugenyi, C., Nimmagadda, S., Reiners, T. (2019). Design Of A SWOT Analysis Model And Its Evaluation In Diverse Digital Business Ecosystem Contexts. *Procedia Computer Science*, *159*, 1145–1154. https://doi.org/10.1016/j.procs.2019.09.283

Odlin, D. (2019). Domestic Competitor Influence On Internationalizing SMEs As An Industry Evolves. *Journal of World Business*, *54*(2), 119–136. https://doi.org/10.1016/j.jwb.2018.12.003

Ong, X., Freeman, S., Goxe, F., Guercini, S., Cooper, B. (2022). Outsidership, Network Positions And Cooperation Among Internationalizing SMEs: An Industry Evolutionary Perspective. *International Business Review*, *31*(3). https://doi.org/10.1016/j.ibusrev.2021.101970

Pereira, A., Martins, A., Policarpo, R., Pereira, M. (2018). Knowledge Analysis On Logistics Cost Trade-Offs: A Study With Portuguese Food Sector' Professionals. *International Journal of Industrial Engineering and Management*, *9*(3), 155–164. https://doi.org/10.24867/IJIEM-2018-3-155

Reis, J. (2002). A Economia Portuguesa: Entre Espanha e as Finanças Transnacionais. *Boletim de Ciências Económicas*, 45(A), 1–10.

Ribeiro Magalhães, P. (2020). Otimização do Processo de Gestão de Stocks e Transferências na Indústria Alimentar. *University of Porto*.

Salunkhe, R, Shinge, A. (2018). Value Stream Mapping to Reduce Lead Time and Improve Throughput Time in a Manufacturing Organization: A Review. In *The IUP Journal of Operations Management,* 17(3).

Shetty, V. K. (2019). Impact of Supply Chain Management Practices on Performance of Companies. *Journal of Supply Chain Management Systems,* 8, 48-57. http://publishingindia.com/jscms/

Tuli, F. (2010). The Basis of Distinction Between Qualitative and Quantitative Research in Social Science: Reflection on Ontological, Epistemological and Methodological Perspectives. *Ethiopian Journal of Education and Sciences*, *6*(1).

Vitasek, K. (2013). Supply Chain Management Terms And Glossary. www.scvisions.com.

Yadav, V., Singh, A., Gunasekaran, A., Raut, R., Narkhede, B. (2022). A Systematic Literature Review Of The Agro-Food Supply Chain: Challenges, Network Design, And Performance Measurement Perspectives. *Sustainable Production and Consumption*, 29, 685–704. https://doi.org/10.1016/j.spc.2021.11.019

Annex A

1. Order example – Production

Lusitano – order – 14-06-2021

- Massa de pimento (Pepper paste) 850g – 160 caixas (boxes).
- Massa de pimento (Pepper paste) 380g – 312 caixas (boxes).
- Piri-piri 185 ml – 120 caixas (boxes).
- Piri-piri 90 ml – 30 caixas (boxes).
- Piri-piri 1000 ml – 10 caixas (boxes).
- Vinha de alho (Garlic Marinade) 380g – 208 caixas (boxes).
- Vinha de alho (Garlic Marinade) 850g – 10 caixas (boxes).
- Tempero para frango (Chicken seasoning) 380g – 104 caixas (boxes).
- Tempero para frango (Chicken seasoning) 850g – 10 caixas (boxes).
- Tempero para febras (Steak Seasoning) 380g – 30 caixas (boxes).
- Molho picante para frango (Chicken hot sauce) 500g – 30 caixas (boxes).
- Massa de alho (Garlic paste) 380g – 20 caixas (boxes).

Lusitano			14 - 06 - 2021			
Produto / Product	**Embalagem/ Packaging**	**Quantidade /Quantity**	**Enchimento / Filling**	**Linha de enchimento / Filling line**	**Cintagem / Rotulagem / Palatização Strapping / Labeling / Palatization**	**Linha de CRP / SLP Line**
Massa de pimento 850g (Pepper paste)	Frasco de Vidro / Glass jar	160 caixas (boxes)	9h às 11:45h – 1008 unidades / units 15-06-2021	Automático 380g	10:40h às 14:40h – 1008 unidades / units 17-06-2021	Rotulagem e cintagem
Massa de pimento 380g (Pepper paste)	Frasco de Vidro / Glass jar	312 caixas (boxes)	12h às 16:35h – 1872 unidades / units 15-06-2021	Automático 380g	14:20h às 17:10h – 1872 unidades / units 16-06-2021	Rotulagem e cintagem
Piri-piri 185 ml	Garrafa de Plástico /Plastic bottle	120 caixas (boxes)	8:30h às 11:10h – 1140 unidades / units 16-06-2021	Rotulagem e cintagem	Enchimento e cintagem na linha de Enchimento e cintagem.	Rotulagem e cintagem
Piri-piri 90 ml	Garrafa de Plástico /Plastic bottle	30 caixas (boxes)	8:30h às 17h – 2936 unidades / units 16-06-2021	Manual	11:10h às 11:50h – 600 unidades / units 16-06-2021	Rotulagem e cintagem
Piri-piri 1000 ml	Garrafa de Plástico /Plastic bottle	10 caixas (boxes)	11:10h às 11:45h – 60 unidades / units 16-06-2021	Manual	15:40h às 15:50h – 60 unidades / units 18-06-2021	Rotulagem e cintagem
Vinha de alho 380g (Garlic Marinade)	Frasco de Vidro / Glass jar	208 caixas (boxes)	15h às 15:50h – 516 unidades / units – 17-06-2021 15:50h às 16:50h – 732 unidades / units – 17-06-2021	Rotulagem e cintagem	Enchimento e cintagem na linha de Rotulagem e Cintagem.	Rotulagem e cintagem

Vinha de alho 850g (Garlic Marinade)	Frasco de Vidro / Glass jar	10 caixas (boxes)	15h às 15:20h – 60 unidades / units 16-06-2021	Manual	15:50h às 16h – 60 unidades / units 18-06-2021	Rotulagem e cintagem
Tempero para frango 380g (Chicken seasoning)	Frasco de Vidro / Glass jar	104 caixas (boxes)	8h às 9:40h – 420 unidades / units 15-06-2021	Manual	11:50h às 14:20h – 624 unidades / units 16-06-2021	Rotulagem e cintagem
Tempero para frango 850g (Chicken seasoning)	Frasco de Vidro / Glass jar	10 caixas (boxes)	15:20h às 15:40h – 60 unidades / units 18-06-2021	Rotulagem e cintagem	Enchimento e cintagem na linha de Rotulagem e Cintagem.	Rotulagem e cintagem
Tempero para febras 380g (Steak Seasoning)	Frasco de Vidro / Glass jar	30 caixas (boxes)	15:45h às 16:30 – 180 unidades / units 16-06-2021	Manual	16h às 16:30h – 180 unidades / units 18-06-2021	Rotulagem e cintagem
Molho picante para frango 500g (Chicken hot sauce)	Garrafa de Vidro / Glass bottle	30 caixas (boxes)	13:15h às 14:25h – 252 unidades / units 16-06-2021	Manual	8:30h às 9:10h – 180 unidades / units 18-06-2021	Rotulagem e cintagem
Massa de alho 380g (Garlic paste)	Frasco de Vidro / Glass jar	20 caixas (boxes)	12:15h às 14:10h – 180 unidades / units 21-06-2021	Manual	8h às 8:40h – 180 unidades / units 22-06-2021	Rotulagem e cintagem

Tempo estimado de produção: 39 horas de enchimento e CRP + 6 horas e 28 minutos de fabrico de embalagens.

Estimated production time: 39 hours of filling and SLP + 6 hours and 28 minutes of packaging manufacturing.

2. Order example – Production

ABC cork – order – 18-06-2021

- Piri-piri Barba Rija 135 ml – 216 caixas (boxes).
- Piri-piri Barba Rija 5000 ml – 114 unidades / units.
- Molho extra picante para frango ABC taste (Extra hot sauce for Ckicken) 500 ml – 65 caixas (boxes).
- Pimenta moída doce (Paprika) 370 g – 172 caixas (boxes).
- Pimenta moída picante (Hot Paprika) 370 g – 104 caixas (boxes).

ABC cork 18 - 06 - 2021						
Produto / Product	**Embalagem / Packaging**	**Quantidade /Quantity**	**Enchimento / Filling**	**Linha de enchimento / Filling line**	**Cintagem / Rotulagem / Palatização Strapping / Labeling / Palatization**	**Linha de CRP / SLP Line**
Piri-piri Barba Rija 135 ml	Garrafa de Plástico /Plastic bottle	216 caixas (boxes)	14h às 17h – 5162 unidades / units 06-05-2021	Piri-piri	16:30h às 17:30h – 372 unidades / units – 07-06-2021 8:30h às 9:50h – 2220 unidades / units – 08-06-2021	Rotulagem e Palatização
Piri-piri Barba Rija 5000 ml	Jerrican	114 unidades / units	8:30h às 9h – 18 unidades / units 24-06-2021	Baldes	Rotulado no enchimento	
Molho Extra Picante para Frango ABC taste 500 ml (Extra hot sauce for Ckicken)	Garrafa de Vidro /Glass bottle	65 caixas (boxes)	6:10h às 10:10h – 780 unidades / units 14-06-2021	Sala de ensaio	9:10h às 11:15h – 780 unidades / units 18-06-2021	Rotulagem e Cintagem
Pimenta Moída Doce 370 g (Paprika)	Frasco de Vidro /Glass Jar	172 caixas (boxes)	9h às 13h – 2064 unidades / units 21-06-2021	Sala de ensaio	9:50h às 14:50h – 2064 unidades / units 22-06-2021	Rotulagem e Cintagem
Pimenta Moída Picante 370 g (Hot Paprika)	Frasco de Vidro /Glass Jar	104 caixas (boxes)	8:30h às 11:30h – 1248 unidades / units 24-06-2021	Sala de ensaio	13:15h às 15:40h – 1248 unidades / units 24-06-2021	Rotulagem e Cintagem

Tempo de produção estimado: 24 horas e 20 minutos de enchimento e CRP + 8 horas e 4 minutos de fabrico de embalagens.

Estimated production time: 24 hours and 20 minutes of filling and SLP + 8 hours and 4 minutes of packaging manufacturing.

3. Order example – Production

Ferma – order – 15-06-2021

- Massa de Pimento (Pepper paste) 200g – 200 caixas (boxes).
- Massa de Alho (Garlic paste) 200g – 150 caixas (boxes).
- Tempero para Frango (Chicken seasoning) 200g – 200 caixas (boxes).
- Massa Pimento (Pepper paste) 5Kg – 480 unidades / units.
- Massa Pimento (Pepper paste) 850g – 300 caixas (boxes).
- Tempero para Frango (Chicken seasoning) 5Kg – 96 unidades / units.
- Tempero para Frango Picante (Spicy Chicken Seasoning) 5Kg – 60 unidades/units.

Ferma			15 - 06 - 2021			
Produto / Product	**Embalagem/ Packaging**	**Quantidade /Quantity**	**Enchimento / Filling**	**Linha de enchimento / Filling line**	**Cintagem / Rotulagem / Palatização Strapping / Labeling / Palatization**	**Linha de CRP / SLP Line**
Massa de Pimento 200g (Pepper paste)	PET	200 caixas (boxes)	8:30h às 9:05h – 1328 unidades / units 16-06-2021	Automático de 380g	8:40h às 11h – 2400 unidades / units 23-06-2021	Rotulagem e Paletização
Massa de Alho 200g (Garlic paste)	PET	150 unidades / units	16:50h às 17:15h – 1200 unidades / units 22-06-2021	Temperos	Enchimento, Rotulagem e Palatização efetuados na linha de enchimento	
Tempero para Frango 200g (Chicken seasoning)	PET	200 caixas (boxes)	8:30h às 9h – 1400 unidades / units 18-06-2021	Automático de 380g	10h às 12:40h – 2160 unidades / units 21-06-2021 14:40h às 15:15h – 240 unidades 23-06-2021	Rotulagem e Paletização
Massa de Pimento 5Kg (Pepper paste)	Balde / Bucket	480 unidades / units	11:25h às 15:25h – 480 unidades/ units 18-06-2021	Baldes	Enchimento e Rotulagem efetuados na linha de enchimento	
Massa de Pimento 850g (Pepper paste)	Frasco de Vidro	300 caixas (boxes)	9:15h às 11:40h – 930 unidades / units – 16-06-2021 11:40h às 14:10h – 870 unidades / units – 16-06-2021	Automático de 380g	11:15h às 12:50h – 930 unidades / units 18-06-2021	Rotulagem e Cintagem
Tempero para Frango 5Kg (Chicken seasoning)	Balde / Bucket	96 unidades / units	14:25h às 15:30h – 96 unidades / units 23-06-2021	Baldes	Enchimento e Rotulagem efetuados na linha de enchimento	
Tempero para Frango Picante 5Kg (Spicy Chicken seasoning)	Balde / Bucket	60 unidades/ units	9:50h às 10:35h – 60 unidades / units 21-06-2021	Baldes	Enchimento e Rotulagem efetuados na linha de enchimento	

Tempo de produção estimado: 15 horas e 15 minutos de enchimento e CRP + 8 horas e 12 minutos de fabrico de embalagens.

Estimated production time: 15 hours and 15 minutes of filling and SLP + 8 hours and 12 minutes of packaging manufacturing.

4. Order example – Production

360 food's – order – 02-06-2021

- Molho Inglês (Worcestershire Sauce) 5000 ml – 80 unidades / units.
- Molho Inglês (Worcestershire Sauce) 5000 ml – 224 unidades/ units.

		360 food's	**02 - 06 - 2021**			
Produto / Product	**Embalagem/ Packaging**	**Quantidade /Quantity**	**Enchimento / Filling**	**Linha de enchimento / Filling line**	**Cintagem / Rotulagem / Palatização Strapping / Labeling / Palatization**	**Linha de CRP / SLP Line**
Molho Inglês 5000 ml (Worcestershire Sauce)	Jerrican PET	80 unidades / units	7:10h às 9h – 80 unidades / units 15-06-2021	Sala de ensaio	16:30h às 17h – 80 unidades / units 15-06-2021	Temperos RP / LP
Molho Inglês 5000 ml (Worcestershire Sauce)	Jerrican PET	224 unidades / units	9h às 13h – 224 unidades / units 15-06-2021	Sala de ensaio	8h às 9:30h – 224 unidades / units 16-06-2021	Temperos RP / LP

Tempo de produção estimado: 07 horas e 50 minutos de enchimento e CRP.

Estimated production time: 07 hours and 50 minutes of filling and SLP.

5. Order example – Production

Biedronka – order – 1-08-2021

- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
- Massa de Alho/ Pimento gourmet (Garlic paste / Pepper paste) 200g – 285 caixas (boxes).
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Foram feitas mais quantidades de forma a ter stock para a próxima encomenda.

More quantities were made in order to have stock for the next order.

Biedronka			1 - 08 - 2021			
Produto / Product	**Embalagem /Packaging**	**Quantidade /Quantity**	**Enchimento / Filling**	**Linha de enchimento / Filling line**	**Cintagem / Rotulagem / Palatização Strapping / Labeling / Palatization**	**Linha de CRP / SLP Line**
Massa de Pimento 200g (Pepper paste)	Frasco PET	512 unidades / units	16:50h às 17:15h 29-06-2021	Automático de 380g		
Massa de Pimento 200g (Pepper paste)	Frasco PET	13600 unidades / units	08:30h às 15:45h 30-06-2021	Automático de 380g		
Massa de Pimento 200g (Pepper paste)	Frasco PET	5456 unidades / units	08:50h às11h 02-07-2021	Automático de 380g		
Massa de Pimento 200g (Pepper paste)	Frasco PET	9712 unidades / units	11h às 16h 02-07-2021	Automático de 380g		
Massa de alho 200g (Garlic paste)	Frasco PET	4440 unidades / units	10:15h às 12h 05-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	1680 unidades / units	12h às 15h 05-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	7880 unidades / units	15h às 16:30h 05-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	1680 unidades / units	16:30h às 17:20h 05-07-2021	Temperos	Rotulado no enchimento	
Massa de Pimento 200g (Pepper paste)	Frasco PET	7176 unidades / units	9h às 12h 05-07-2021	Automático de 380g		
Massa de Pimento 200g (Pepper paste)	Frasco PET	5368 unidades / units	13h às 15:45h 05-07-2021	Automático de 380g		
Massa de Pimento 200g (Pepper paste)	Frasco PET	2608 unidades / units	15:45h às 16:45h 05-07-2021	Automático de 380g		

Massa de alho 200g (Garlic paste)	Frasco PET	4480 unidades / units	08:30h às 10:30h 06-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	1960 unidades / units	10:30h às 11:30h 06-07-2021	Temperos	Rotulado no enchimento	
Massa de Pimento 200g (Pepper paste)	Frasco PET	3356 unidades / units	8h às 9:40h 06-07-2021	Automático de 380g		
Massa de alho 200g (Garlic paste)	Frasco PET	4000 unidades / units	09:20h às 11h 12-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	6080 unidades / units	11h às 14h 12-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	7000 unidades / units	10:45h às 15h 13-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	1960 unidades / units	15h às 15:40h 13-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	2240 unidades / units	15:40h às 16:50h 13-07-2021	Temperos	Rotulado no enchimento	
Massa de alho 200g (Garlic paste)	Frasco PET	2210 unidades / units	8h às 09:30h 14-07-2021	Temperos	Rotulado no enchimento	
Massa de Pimento 200g (Pepper paste)	Frasco PET	3900 unidades / units	10:15h às 11:20h 14-07-2021	Temperos		
Massa de Pimento 200g (Pepper paste)	Frasco PET	1700 unidades / units	11:20h às 12h 14-07-2021	Temperos		
Massa de Pimento 200g (Pepper paste)	Frasco PET	8080 unidades / units	13h às 16h 14-07-2021	Temperos		
Massa de Pimento 200g (Pepper paste)	Frasco PET	2800 unidades / units	16h às 16:50h 14-07-2021	Temperos		

Massa de Pimento 200g (Pepper paste)	Frasco PET	3900 unidades / units			10:15h às 11:20h 14-07-2021	Temperos R / L
Massa de Pimento 200g (Pepper paste)	Frasco PET	1700 unidades / units			11:20h às 12h 14-07-2021	Temperos R / L
Massa de Pimento 200g (Pepper paste)	Frasco PET	8080 unidades / units			13h às 16h 14-07-2021	Temperos R / L
Massa de Pimento 200g (Pepper paste)	Frasco PET	2800 unidades / units			16h às 16:50h 14-07-2021	Temperos R / L
Massa de alho / Pimento 200g (Garlic paste / Pepper paste)	Frasco PET	285 caixas (boxes)			06h às 07:40h 16-07-2021	Rotulagem e Palatização P
Massa de alho / Pimento 200g (Garlic paste / Pepper paste)	Frasco PET	285 caixas (boxes)			07:40h às 08:25h 16-07-2021	Rotulagem e Palatização P
Massa de alho / Pimento 200g (Garlic paste / Pepper paste)	Frasco PET	285 caixas (boxes)			08:25h às 10h 16-07-2021	Rotulagem e Palatização P
Massa de alho / Pimento 200g (Garlic paste / Pepper paste)	Frasco PET	285 caixas (boxes)			10h às 11:15h 16-07-2021	Rotulagem e Palatização P
Massa de alho / Pimento 200g (Garlic paste / Pepper paste)	Frasco PET	285 caixas (boxes)			11:15h às 12:20h 16-07-2021	Rotulagem e Palatização P
Massa de alho / Pimento 200g (Garlic paste / Pepper paste)	Frasco PET	285 caixas (boxes)			12:20h às 13:30h 16-07-2021	Rotulagem e Palatização P

Tempo estimado de produção: 61 horas e 35 minutos de enchimento e CRP + 248 horas e 50 minutos de fabrico de embalagens.

Estimated production time: 61 hours and 35 minutes of filling and SLP + 248 hours and 50 minutes of packaging manufacturing.

Figures

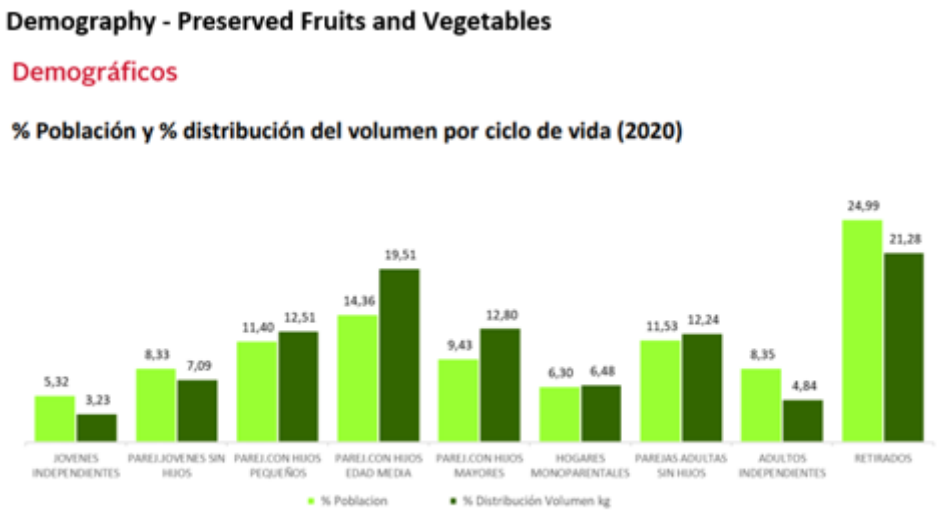

Fig. 10 – Demography – Preserved Fruits and Vegetables
Source: '*Informe del Consumo de Alimentación en España 2020*'

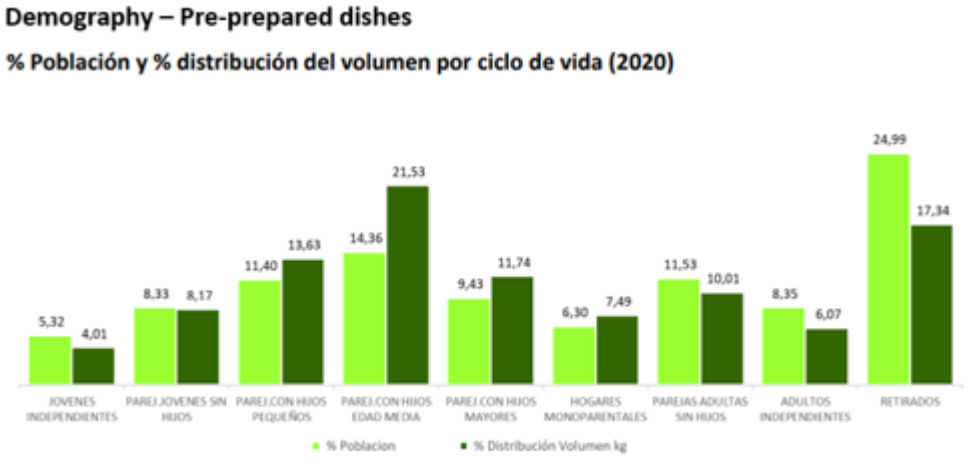

Fig. 11 – Demography – Pre-prepared Dishes
Source: '*Informe del Consumo de Alimentación en España 2020*'

Distribution Channels - Pepper

Canales

% Distribución y % evolución en volumen por canales (2020 vs. 2019)

	HIPERMERCADO	SUPER+AUTOSER	TIENDA DESCUENTO	TIENDA TRADICIONAL	R. CANALES	E-COMMERCE
% Volumen por canal	7,8	31,8	10,1	28,9	21,1	1,2
% Evolución volumen (kg)	17,0	21,8	26,4	16,5	12,9	182,5

Fig. 12 – Distribution Channels - Pepper
Source: '*Informe del Consumo de Alimentación en España 2020*'

Distribution Channels - Condiments and Spices

Canales

% Distribución y % evolución en volumen por canales (2020 vs. 2019)

	HIPERMERCADO	SUPER+AUTOSER	TIENDA DESCUENTO	TIENDA TRADICIONAL	R. CANALES	E-COMMERCE
% Volumen por canal	13,3	53,0	13,1	8,3	12,3	2,0
% Evolución volumen (kg)	33,6	23,1	34,2	8,5	52,5	104,1

Fig. 13 – Distribution Channels – Condiments and Spices
Source: '*Informe del Consumo de Alimentación en España 2020*'

Distribution Channels - Preserved Fruits and Vegetables

Canales

% Distribución y % evolución en volumen por canales

	HIPERMERCADO	SUPER+AUTOSER	TIENDA DESCUENTO	TIENDA TRADICIONAL	R. CANALES	E-COMMERCE
% Volumen por canal	14,4	57,4	18,4	2,7	7,1	2,9
% Evolución volumen (kg)	11,5	12,4	7,4	16,9	50,0	58,5

Fig. 14 – Distribution Channels – Preserved Fruits and Vegetables
Source: '*Informe del Consumo de Alimentación en España 2020*'

Tables

Possible New Market		
County	**Note**	**YES/NO**
Spain	Currently no buyers or distributers.	**YES**
France	Big reseller (Mondexport).	**NO**
UK	Brexit.	**NO**
Italy	No buyers or distributers.	**YES**
Belgium	Big reseller (Nova Primavera).	**NO**
Germany	No buyers or distributers.	**YES**
Holland	Big reseller (Dom Bacalhau).	**NO**
Austria	No buyers or distributers.	**YES**
Croatia	No buyers or distributers. Does not use the same currency (€).	**NO**
Denmark	No buyers or distributers. Does not use the same currency (€).	**NO**
Slovenia	No buyers or distributers.	**YES**
Slovakia	No buyers or distributers.	**YES**
Estonia	No buyers or distributers.	**YES**
Finland	No buyers or distributers.	**YES**
Greece	No buyers or distributers.	**YES**
Bulgaria	No buyers or distributers. Does not use the same currency (€).	**NO**
Cyprus	No buyers or distributers. Not in the Schengen area.	**NO**
Hungary	No buyers or distributers.	**YES**

Ireland	No buyers or distributers. Not in the Schengen area.	**NO**
Latvia	No buyers or distributers.	**YES**
Lithuania	No buyers or distributers.	**YES**
Luxembourg	Big reseller (Primafood).	**NO**
Malta	Big reseller (360 foods).	**NO**
Poland	Big reseller (Jerónimo Martins). Does not use the same currency (€).	**NO**
Romania	No buyers or distributers. Does not use the same currency (€).	**NO**
Czech Republic	No buyers or distributers. Does not use the same currency (€).	**NO**
Sweden	Big reseller (Werners). Does not use the same currency (€).	**NO**

Table 1. Possible New Market