U.PORTO

MASTERS
MASTERS IN ECONOMICS OF BUSINESS AND STRATEGY

International Market Selection for Portuguese Wineries

Ana Carolina Silva de Farias

M

2023

FACULDADE DE **ECONOMIA**

U.PORTO

FEP FACULDADE DE ECONOMIA
UNIVERSIDADE DO PORTO

INTERNATIONAL MARKET SELECTION FOR PORTUGUESE WINERIES

Ana Carolina Silva de Farias

Dissertation

Master in Economics of Business and Strategy

Supervised by

Raquel Filipa do Amaral Chambre de Meneses Soares Bastos Moutinho

2023

Acknowledgements

This dissertation is a very important achievement in my life, being the end of a very challenging but rewarding cycle. I would like to thank my mom, Zelma, my dad, Adelmo and my brother, Thiago, for being there for me in every step of the way and supporting me in every decision I have made.

A big thank you to my boyfriend, Artur, who supported me through the whole process, always giving valuable advice, supporting my every decision. Thank you for your understanding and love.

Thank you to all my colleagues and friends that made this masters' degree journey easier.

Finally, a special thank you to Professor Raquel Meneses, for her endless support, guidance and inspirations. Thank you for all the long meetings and inspiration to always move forward and keep improving.

Abstract

Wine has been part of people's lives since ancient times; through the fermentation of grapes, it can bring health, social, and economic benefits. As one of the most traditional wine-producing regions of the world, this sector is very important to the country's economy, involving several areas such as exports, tourism, logistics and industry. The sector, however, is mostly made by small and medium-sized wineries that many times struggle in the domestic market and finds it difficult to expand their international presence. This study aims to investigate how a crucial step of the internationalization process occurs for Portuguese wineries, International Market Selection (IMS).

Through questionnaires answered by 41 Portuguese wineries, this research conducted non-parametric statistical tests to understand whether characteristics of the wineries (size and location) had an effect in the method selected and how the different IMS approaches were related to the wineries' success. Seven main IMS methods were selected for questioning including systematic and non-systematic approaches. Mainly, the bigger the enterprise the more it tends to select three types of approaches: Analysis of the wineries' internal factors in the Preliminary Screening approach, the method Foreign Market Opportunity Analysis and to respond specific orders from fairs. As for success and to what degree the wineries' were successful in their initial goals when starting this process, the only statistically significant method that indicates an influence in success was geographic proximity for both hypotheses and for reaching their objectives, performing an industry and sector analysis in the Preliminary Screening approach was also statistically significant, also indicating a positive relationship, however the results showed that there are limitations of the effectiveness of the extent usage of the methods.

While the main results contradict a few studies in the field, it is aligned with a few other that pointed out the importance of Geographic Proximity. In addition, the study confirms a very common statement in IMS literature, that is market knowledge.

JEL Codes: F23, M16, Q17, L66, N25, N50

Keywords: Wine, Winery, International Market Selection, Internationalization, Strategy, Non-parametric tests

Resumo

O vinho faz parte da vida das pessoas desde os tempos antigos; através da fermentação das uvas, pode trazer benefícios à saúde e benefícios sociais e econômicos. Sendo uma das mais tradicionais regiões vinícolas do mundo, este setor é muito importante para a economia de Portugal, envolvendo diversas áreas como exportação, turismo, logística e manufatura. O setor, porém, é feito principalmente por vinícolas de pequeno e médio porte, que muitas vezes lutam no mercado interno e encontram dificuldades para expandir sua presença internacional. Este estudo tem como objetivo investigar como ocorre uma etapa crucial do processo de internacionalização das vinícolas portuguesas, a Seleção do Mercado Internacional (SMI).

Através de questionários respondidos por 41 vinícolas portuguesas, esta investigação realizou testes estatísticos não paramétricos para perceber se as características das vinícolas tiveram efeito no método selecionado e como as diferentes abordagens IMS estavam relacionadas com o sucesso das adegas. Sete métodos principais de IMS foram selecionados para questionamento, incluindo abordagens sistemáticas e não sistemáticas. Principalmente, quanto maior o empreendimento, mais ele tende a selecionar três tipos de abordagens: Análise dos fatores internos das vinícolas na abordagem de Triagem Preliminar, o método Análise de Oportunidades no Mercado Externo e atender pedidos específicos de feiras. Quanto ao sucesso e até que ponto as vinícolas foram bem-sucedidas em seus objetivos, o único método estatisticamente significativo que indica uma influência no sucesso foi a proximidade geográfica para ambas as hipóteses e para objetivos, realizando uma análise da indústria e do setor na abordagem Triagem Preliminar também foi estatisticamente significativa, indicando também uma relação positiva, no entanto, os resultados também mostraram limitações quanto a efetividade do uso extensivo dos métodos.

Embora os principais resultados contradigam alguns estudos na área, eles estão alinhados com alguns outros que apontaram a importância da Proximidade Geográfica. Além disso, o estudo confirma uma afirmação muito comum na literatura de SMI, que é o conhecimento de mercado.

Classificação JEL: F23, M16, Q17, L66, N25, N50

Palavras-Chave: Vinho, Selecção de Mercados Internacionais, Internacionalização, Estratégia, Testes não paramétricos

Index

List of Figures

List of Tables

List of Acronyms

IMS.....International Market Selection

SME.....Small and Medium Enterprise

MNE.....Multinational Enterprise

DOC.....Denominação de Origem Controlada

INE.....Instituto Nacional de Estatística

IPR.....Indicação de Proveniência Regulamentada

VQPRD..... Vinho de Qualidade Produzido em Região Determinada

VLQPRD.....Vinho Licoroso de Qualidade Produzido em Região Determinada

VEQPRD.....Vinho Espumante de Qualidade Produzido em Região Determinada

VFQPRD.....Vinho Frisante de Qualidade Produzido em Região Determinada

FMOA.....Foreign Market Opportunity Analysis

MCDM.....Multi-Criteria Decision-Making

GDP.....Growth Domestic Product

1. Introduction

With the domestication of animals and plants between 8500 and 4000 b.C, wine's significance in human life began to emerge. Wine was consumed in numerous ancient cultures before becoming what it is today. The beverage has seen significant growth in popularity, particularly in European nations where the climate and soil are ideal for growing and producing the grapes for the finest wines in the world. Wine consumption has consistently shown significant global participation, with a projected global value of USD 339.53 billion in 2020 (Arena Flowers, 2022).

Overall, the wine economy in Portugal is extremely important, accounting for 3.97 billion dollars in 2023, and is expected to grow 9.94% annually until 2027 (CAGR) (Statista, 2023). Data from the Bank of Portugal (Lourenço, 2017) shows that 88% of all business in the beverage sector are wine-producing businesses. Small and medium enterprises (SMEs) in Portugal make up 24% of all businesses and 70% of total business volume (Lourenço, 2017).

With the advances of the globalized world, internationalization has been a crucial strategy for companies to grow out of country-level limitations, be more competitive and increase profitability (Kahiya & Dean, 2016). The obstacles that Small and Medium Enterprises (SMEs) encounter differ from those that Multinational Enterprises (MNE) experience, such as a lack of funds and in-depth knowledge of international markets (Child et al. 2022). Furthermore, many SMEs do not embark on this process for limitations on their knowledge of how to choose the best approach or destination.

Internationalization of small and medium-sized businesses is seen as a key aspect in enhancing economic activities since it boosts competitiveness at the national level, provides more and better-paying jobs, and generates foreign exchange revenues, all of which contribute to long-term economic growth (Kahiya & Dean, 2016). The success of the wine sector in Portugal is beneficial for the country, according to the interview of Nuno Russo, former secretary of Agriculture and Rural Development of Portugal (from October 2019 to December 2020), contributing to the growth of the sector and country, and the development of new and more sustainable production technologies (Government of Portugal, 2020). The international projection of the country in the wine sector puts Portugal in the top 10 exporters of the world, and increased efforts in the sector will also be able to spill into others, such as tourism, agriculture, and agriculture technology.

According to Bentes (2022), and to the National Association of Traders and Exporters of Wine and Spirits (ANCEVE - in Portuguese), small and medium-sized wine producers in Portugal are on the verge of going bankrupt because of the rapid rise in expenses. Due to their limited or nonexistent exports and reliance on selling their beverages to restaurants, many producers cannot pass along the costs to their buyers. Thus, the choice of internationalization can be a matter of survival for these companies.

This research investigates the factors underlying the International Market Selection (IMS) for wine producers in Portugal and its relationship to the wineries' success in the field. The IMS process is not only considered a strategic decision, but also as a matter of choice that the goal is to select potential markets for the beginning or the expansion of their internationalization process from a subset of countries (Papadopoulos & Martin, 2011). IMS regards the analysis of great amounts of information comparing two or more countries, industries, products, or customers, which can be a complex task (Papadopoulos & Martin, 2011). Besides the complexity in obtain all information necessary, IMS differs in several aspects depending on the characteristics of the companies, such as size, type of institution (private or public), level of resources, international experience, across industries and across goods (Papadopoulos & Martin, 2011).

The objective of this dissertation is to understand how the process of IMS is performed in the Portuguese wine sector given the different regions, size of firms and the wineries' success. The research compared the IMS experience of several different wineries, highlighting the most frequently used approaches and investigated the relationship between characteristics of the winery, the propensity of choosing a specific IMS method, the influence that these methods exert in the overall success of the wineries in the process and how successfully they reached their initial goals when undergoing the internationalization process. The results of this research can be useful as a guidance for wineries that still did not start their internationalization process as an indication of which IMS methods are the most adequate for their scenario.

The IMS process can be very complex and can follow two different approaches in general terms: systematic and non-systematic. While the non-systematic approach does not follow a set of rules and can be performed based on rules of thumb or even through observation, the systematic approach takes into consideration a structured method for the decision-making process, usually based on data. In the wine sector, due to its limitations

when it comes to the internationalization process, namely the specific characteristics in the production of the wines, the IMS process is especially important to achieve success. In addition, there are many studies regarding the success of exports, but not many in the roots of the process. Thus, this study has the goal to contribute to the literature on International Market Selection for the wine sector, as well as to provide guidance to wineries in Portugal that did not yet engage in the process. To do that, this research aims to answer two research questions:

RQ 1: Do firms' characteristics influence the International Market Selection in the Portuguese wine sector?

Which approach influences internationalization's success?

This research was based on questionnaires sent to wineries in Portugal to understand each company scenario and characteristics as well as in what frequency they performed any of the steps of the IMS methods explored in the literature review section, the degree of success each winery considered they achieved success and to what extent they reached their goals when undergoing the internationalization process.

Following this chapter, the literature review is composed by the significance of the wine sector in Portugal, the importance of selecting an adequate international market, the most relevant IMS methods, other studies of IMS in the wine sector and how IMS takes place at SME's. After that, there is a comprehensive methodology section where the development of the questionnaire was explored, and the statistical tests were explained. Then, the database selection is described followed by a descriptive analysis of the main results and deep exploration of the statistical results. Last, but not least, a conclusion was elaborated, as well as the identification of limitations of the study and possible future research venues.

2. Literature Review

For better context, it is important to start at the beginning to provide understanding of the importance of the wine sector in the world and more specifically to the country aim of this study. So, over this section, it was explained the base of this research. To do that, there is a brief description on the history of internationalization and the main aspects that are related to this study. Then, the main IMS methods were explored and divided into two sections: the systematic and non-systematic approach. Finally, it was elaborated a background of the existing wine sector investigations and relevant studies regarding how IMS takes place for SME's.

2.1 Importance of the Wine Sector

Since ancient times, wine has been part of people's lives, evolving from an important sustenance source to a cultural part of diet and social life (Wine in Moderation, 2023). In fact, there are several studies that conclude that wine in moderation can prevent premature aging, can improve the heart's health, can prevent Alzheimer's disease, prevents depression, improves the health of the skin, among other benefits (Wine Tourism in Portugal, 2022). Just as important as the product itself, the sector of wine is crucial to several countries as well as to the world economy, as is further explained in the next section.

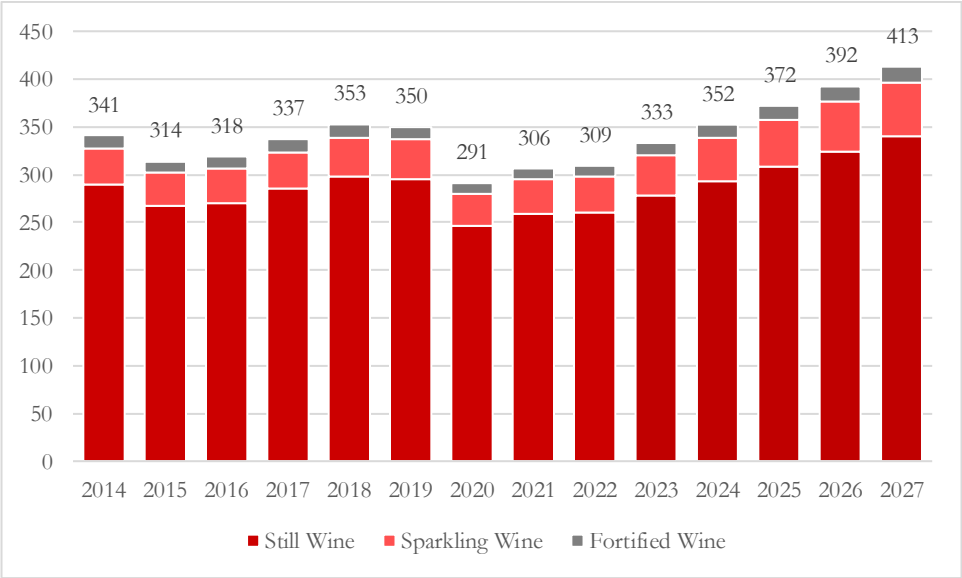
2.1.1 Global Wine Industry

The Wine Industry is inserted in the alcoholic beverages derived from fermented grapes, and the revenues in the sector accounts for US$ 333 billion worldwide and is expected to grow 5.52% annually from 2023 to 2027 (Statista, 2023). In the entire alcoholic beverages industry, the revenue of the wine industry accounts to approximately 20% and is not as concentrated as other alcoholic beverages such as beer and distilled drinks. The five largest companies in the sector are Castel Feres (France), Pernod Richard (France), Constellation Brands (United States of America), Viña Concha Y Toro (Chile) and Accolade Wines (Australia) accounting for 12% of the world's revenue in 2020 (Statista, 2023; Kolmar, 2023).

There are mostly three types of wine: Still Wine, Sparkling Wine, and Fortified Wine. The first refers to wines without the addition of carbon dioxide, the second refers to wine with the inclusion of carbon dioxide and the latter refers to wine that is stronger in alcohol (Statista, 2023). The wines are also produced in three varieties: White, Red, and Rose; depending on the type of grape, production process and types of fruit that are mixed to

compose the wine. The Still Wine accounted for more than 80% of the global industry revenue in 2022, as can be seen in Figure 1: World's Revenue Wine Industry (billion USD).

Figure 1: World's Revenue Wine Industry (billion USD)



Source: Statista (2023)

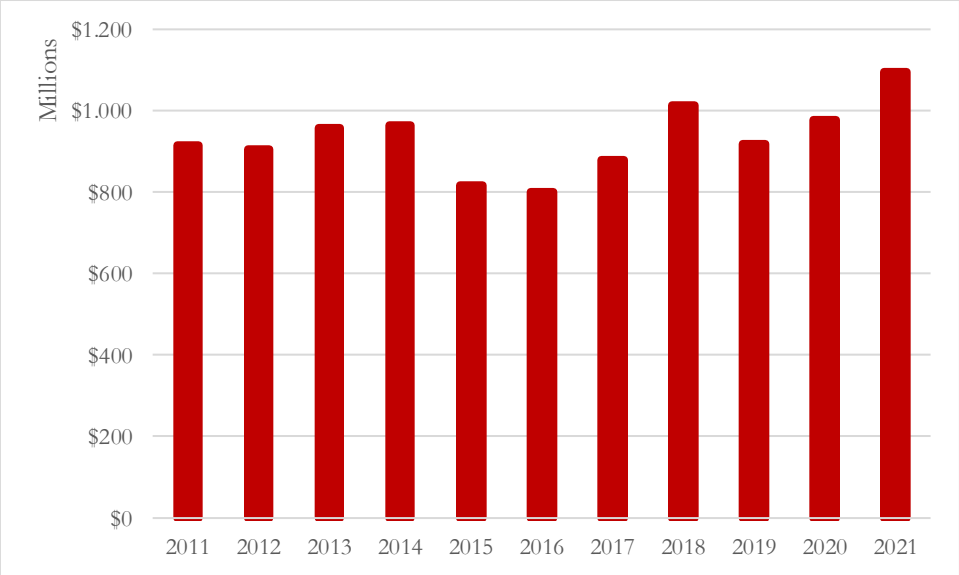
Since wine consumption is thousands of years old, one may think that the industry is stagnant and there is no space for innovation. However, recent trends have shown that consumer preferences have changed throughout several products and wine would not be any different. Consumers are now more conscious of the impact the product they consume have in the world, especially for the wine industry, they are more interested in how grapes are grown, workers quality of life, and packaging (Andrews, 2022). Also, wines that are produced in regions like the United States of America, Australia, New Zealand, and Greece, among others, called Emerging Region Wines, are gaining a lot of space in the market due to its reduced price, innovation, and global climate change (Andrews, 2022; Vinovest, 2023). Finally, even though cheaper alternatives are gaining space in the market, the fine wine segment is still very strong and due to the restrictions of social experiences in the COVID-19 pandemic through 2020 to 2022, households had more disposable income which increased the consumption of higher quality alcoholic beverages (Andrews, 2022).

2.1.2 Portuguese Wine Industry

Accounting for US$ 4 billion in 2023 (Statista, 2023), Portugal is one of the most traditional wine-producing regions in the world (Patani, 2023). According to Nuno Russo,

former Secretary of State Agriculture and Rural Development, the country ranks in the top 10 exporters of wine in the world due to its natural competitive advantages (Government of Portugal, 2020). In 2020, the Portuguese wine exports accounted for 1.6% of the total national exports (US$ 941 million) gauging 7.7% of the total agricultural production on that year and approximately 24.1% of the total food and beverage industry in the country (Agrogarante, 2021). Wine exports of Portugal have been growing throughout the years and in 2021, reached a peak of US$ 1.1 billion as can be observed in Figure 2: Wine Exports of Portugal (2011-2021).

Figure 2: Wine Exports of Portugal (2011-2021)



Source: TrendEconomy (2023)

In recent years, the wine industry in Portugal began to change, instead of delivering their harvest to cooperatives, several small and medium wineries started to produce and commercialize their own wine (Wines of Portugal, 2023). The sector is very relevant to the country and the net revenues increased 588% in the last 10 years (ViniPortugal, 2021). In 2021, there was more than 1,000 companies related to the wine industry in Portugal where 99.5% are SMEs (ViniPortugal, 2021).

Likewise other countries, after the integration of Portugal in the European Union, the wine production in the country follows an organized structure of Denomination of Controlled Origin ("Denominação de Origem Controlada" in Portuguese - DOC). The wines produced in each DOC have its origin and production in the region and follow rigorous controls at every step of the production process (Infovini, 2023). A few examples

of Portuguese DOCs are Vinho Verde, Trás-os-Montes, Douro, Távora-Varosa, Dão, Tejo, Alentejo, and Lisboa, among others. The wines also can have the attribution Indication of Regulated Provenience ("Indicação de Proveniência Regulamentada" – IPR), which contemplates wines that come from regions that must follow, for at least 5 years, production rules to be considered of a DOC region (Infovini, 2023).

The Portuguese wines also follow the quality procedures defined by the European Union: Quality Wine Produced in Determined Region ("Vinho de Qualidade Produzido em Região Determinada" – VQPRD), Licorous Quality Wine Produced in Determined Region ("Vinho Licoroso de Qualidade Produzido em Região Determinada" – VLQPRD), Sparkling Quality Wine Produced in Determined Region ("Vinho Espumante de Qualidade Produzido em Região Determinada" -VEQPRD), and Frizing Quality Wine Produced in Determined Region ("Vinho Frisante de Qualidade Produzido em Região Determinada" – VFQPRD) (Infovini, 2023).

2.2 Internationalization

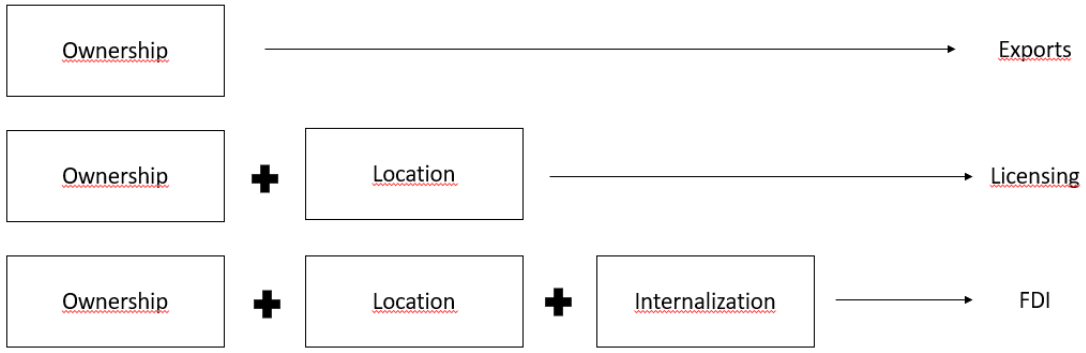
The process of internationalization is defined by several studies in the International Business field as the increase of a firm's participation in the international scene (Johanson & Vahlne, 1977). The importance of internationalization to a firm began to grow exponentially after World War II when the demand for technology and machinery was high to reconstruct Europe (Vahlne, 2020). The process is risky and takes on many resources but, if used correctly in a good opportunity, the benefits exceed the costs (Buckley & Casson, 2019). The internationalization process differs from other strategies in two main steps, the first refers to the selection of the market to transfer the firms' products and services, and the second the transaction modality, namely, the foreign market entry strategy (Andersen & Buvik, 2002).

In the beginning of the development of internationalization studies, the main topics explored were why FDI existed and how it behaved, with great contributions from Hymer (1960), Vernon (1966) and Knickerbocker (1973). However, with the increased popularization of the process, the internationalization process started to be studied from several other points of view, which includes two critical options: the International Market Selection (IMS) and the choice of Mode of Entry (MoE) (Andersen & Buvik, 2002).

Dunnning (1980) developed the Eclectic (OLI) Paradigm to explain the different choices of internationalization mode of entry. The Eclectic Paradigm connects the specific

characteristics of countries into each company's individual advantages. The level of commitment, market selection and entry mode depend on three aspects: Ownership Advantages, Location Advantages, and Internalization Advantages. The first refers to the competitive advantages of the firm when compared to others (O), Location refer to the advantage a firm has in being in a certain location (L), and lastly regards the benefit of the company to internalize their production of the ownership advantages or to sell to outsource to other firms (Batschauer da Cruz et al, 2020). The level of each of those aspects can determine the entire internationalization strategy of a company Figure 3: Dunning's Intenationalization map based on firm s advantages.

Figure 3: Dunning's Intenationalization map based on firm s advantages



Source: Based on Dunning (1980).

According to Figure 3, if the company only has ownership advantages (O), it is not adequate to have high commitment to the new markets incurring in more risks and resources, so the company can just export their goods. If the company has ownership advantages (O) and location advantages (L), the benefits of being in a certain location surpass the risks, so it should commit more to the market, for example, licensing the product. And finally, if the company has ownership advantages (O), location advantages (L) and internalization advantages (I), it uses those characteristics in their own advantage and produce their own goods in the new markets (Dunning, 1980).

Other than theories on why FDI exists, Johanson and Vahlne (1977) were one of the pioneers in the investigation of how the internationalization process occurs. They developed the Uppsala model, which describes the process of internationalization as gradual, firm takes incremental steps, for example, starting with exports via an agent, then implementing a commercial subsidiary and then an industrial subsidiary. The level of market commitment

and market knowledge determine further commitment decisions and the way business is performed; thus, market knowledge is key to an internationalization strategy to be successful.

In this research, since the main Mode of Entry of wine companies is exports due to the specificity of the products, the focus is IMS. The difference between markets makes firms adapt their marketing strategies and if those markets are not well selected, it can increase the risks of internationalization (Di Maria & Ganau, 2016). Thus, to maximize profits from internationalization and reduce failure risks, it is important to select the adequate International Market.

2.3 International Market Selection

The International Market Selection (IMS) is a process in which the company chooses among one or more options of countries to internationalize, being a step after the choice to internationalize and a step prior to a thorough analysis to adapt strategy right before entry (Papadopoulos & Dennis, 1988). The factors that influence international market selection vary across sectors, industries, countries, and characteristics of the company. Baena-Rojas et al (2022) state that companies must be prepared for the challenges that will come their way when operating in international markets, so strategic export plans are a crucial part of their survival in international markets.

The relationship with the market be it experience-related or information-related is a strong indicator of international market selection performance and the firms' success, thus, a fundamental step of strategic development of internationalization is the transfer and increase of market knowledge (Johanson & Vahlne, 2003). Furthermore, knowledge of the markets allows firms to recognize opportunities and make the right decisions to be successful in internationalizing their product, which can be undermined by the wrong choice of international markets (Rahman, 2003; Martín et al, 2021).

Thus, International Market Selection is a critical step for the company's strategy allowing the company the ability to efficiently coordinate their operations abroad and affects the entire sales and marketing of the company (Papadopoulos & Denis, 1988). There are usually two strands of research regarding IMS, a more qualitative investigation regarding one or several countries and a quantitative analysis based on statistical data of several countries (Papadopoulos & Denis, 1988), and these approaches can follow two research methods, systematic and non-systematic.

2.3.1 Systematic approach

The International Market Selection process is a fundamental step for firms to obtain success abroad, as it sets the rhythm and structure for future transactions, affirming the importance to use structured models in selecting new foreign markets (Kumar et al, 1994). The systematic approach refers to a well-structured and organized decision-making process, defining the problem, identifying, and weighing relevant country and market-specific criteria - being macroeconomic indicators, political and cultural aspects, as well as market size, competition, preferences, and internationalization and distribution costs – then it is possible to generate alternatives and rate them based on the criteria previously defined (Andersen & Buvik, 2002). This approach allows firms to avoid ignoring countries that could be a good fit and spending too many resources and time researching the wrong prospects (Root, 1998).

The qualitative investigation focuses on characteristics of the countries that qualify their position, such as nature, attractiveness, competitive advantages, and psychic distance (Brewer, 2001). Kumar et al (1994) state that even though a qualitative approach is systematic, it can be designed by the bias of the agent providing information and the company's managers' own opinions, which also limits the number of countries that can be analyzed. The quantitative analysis considers such factors, however, the most important aspect is how they can relate to each other and how they can be transformed into a model to understand their statistical correlations. Such factors can be location costs, employment size, strategic obstacles, financial variables, internalization factors, cultural aspects, market structure and so on that are relevant to the specific sector of a specific firm (Westhead et al, 2001; Dow 2000; Buckley & Casson, 1998).

Although, the ideal IMS process should be comprehensive, flexible, and cost effective (Papadopoulos and Martín, 2011), there is no unique way to develop an IMS strategy, companies should adopt the approaches to their own needs, sector, and scenarios (Oey et al, 2018). Some of these possibilities are country mapping and identification, market screening, market potential, estimating company revenue and success indicators (Koch, 2001; Kumar et al., 1994; Root, 1998; Oey et al, 2018).

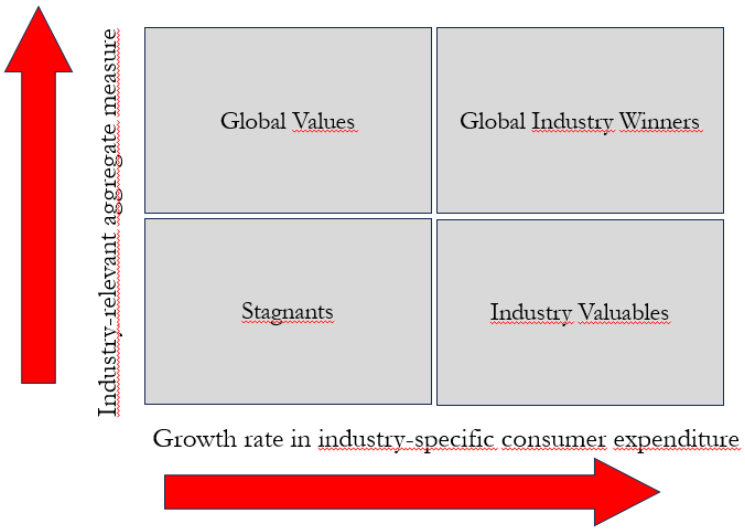
One very common method is a defined set of steps defined in three stages. In this research, this method will be called **Preliminary Screening** and the three stages are: Identification of Prospects – which includes macroeconomic indicator analysis to understand the countries' desirability of the product – thorough screening – which includes a deeper

analysis of data specific to the industry and sector – and final selection that consists of analyzing company-specific indicators such as costs, revenues, growth potential, margin analysis (Oey et al, 2018).

The first step, preliminary screening, is usually a challenge due to the high volumes of data to gather and analyze. Oey et al (2018) state that to simplify the process, most IMS models use country-level indicators or strategic frameworks such as political, economic, social, technology, and infrastructure analysis (PESTI). Also, a few models included sector and product-specific information such as market size, sector growth rate, product differentiation, and customer preferences (Koch, 2001; Kumar et al, 1994; Root, 1998; Oey, 2018). In the second step, the thorough analysis, more specific sector, and industry indicators are analyzed in order to segment the potential country, factors such as competition, market attractiveness, and entry barriers are researched at this stage (Koch, 2001). For the final stage, more firm-specific data are analyzed, such as revenues, costs, margins, and product compatibility with the current portfolio (Oey et al, 2018).

In the IMS context, the use of quantitative tools to find the most adequate market has been more relevant throughout the years and models such as econometric models, gravity models and fuzzy logic have improved the process and enhanced the exports strategy outcomes (Dow 2000; Macedo et al 2019; Marchi et al 2014). Ozturk et al (2015) developed an approach in which they evaluate the opportunity offered by each market, the Foreign Market Opportunity Analysis (FMOA). There are three main dimensions to their model: country responsiveness, growth potential, and aggregate market measure. The countries are then assessed based on these three dimensions and plotted into a graph with four clusters: Global Industry Winners, Global Valuables, Industry Valuables, and Stagnants. The countries are classified on the Y-axis as the level of industry-relevant aggregate measure and on the X-axis as the growth rate in industry-specific consumer expenditure, as shown in Figure 4: FMOA tool developed by Ozturk et al (2015).

Figure 4: FMOA tool developed by Ozturk et al (2015)



The International Market Selection process cannot possibly evaluate all eligible countries for international trade, instead, an analysis of viable countries is conducted. Cavusgil (1997) created an index that evaluates the seven dimensions that determine the attractiveness of a possible market, that are: market size, market growth rate, market intensity, market consumption capacity, commercial infrastructure, economic freedom, and market receptivity. Said dimensions are combined into the index using determined weights to them that reflect their importance in the countries' evaluation. The weight attribution to several factors of importance is also approached by the Multi-Criteria Decision Making (MCDM). The model decreases the risk and considers appropriate weights to its many variables (Baena-Rojas et al, 2022).

The MCDM is a methodology that can consider several different sets of criteria and sub-criteria with different weights attributed to them to select the best alternative that can maximize the expected result (Vanegas-Lopez et al, 2020; Oey et al, 2018). The methodology has been used in several fields of study, such as supplier selection, analysis of logistics agents, and advanced manufacturing process selection (see: Jain et al, 2018; Bianchini, 2018; Mathew et al, 2020). The main factors analyzed by the MCDM method for IMS depends on the sector, product, and industry. The criteria used are divided into factors and subfactors such as Costs, Culture, Economics, Logistics, Trade Barriers, and Distance, according to the firms' own scenario (Oey et al, 2018; Vanesgas-López, 2020; Baena-Rojas et al, 2022;).

Evidence has shown that firms that use a more systematic approach tend to be more successful (Brouthers & Nakos, 2005; Ahi et al, 2019). Overall, when companies use a robust systematic IMS approach, they are more efficient in international trade and the firms can benefit from lower risks, increase in efficiency costs, and fast export growth (Oey et al, 2018). However, this approach can get a lot of scrutiny because the well-defined steps are not actually observed, it describes how the rational decision-making process method should be and not how it actually is (Bazerman, 1986). In fact, a systematic approach that uses more resources and time more efficiently increases the probability of a company's success, however, isn't more resources a success indicator itself? Do not wealthy companies have in their disposal the ability to overcome challenges that may occur and have more access to information than small and medium enterprises? It is important to keep this relationship in mind as it is the base of some of the hypothesis tested.

2.3.2 Non-systematic approach

The non-systematic approach is defined as an approach where no formal methods are used in the process of selecting new markets (Papadopolos & Martín, 2011). One of the "rules of thumb" firms use, according to Andersen and Buvik (2002), is to select countries with less psychic distance, so the destination then is easier to "understand". The concept of psychic distance regards the abstract aspects that differentiate countries from each other, such as culture, language, political systems, level of education, among others (Johanson & Vahlne, 1977; Andersen & Buvik, 2002). The most important strands in the non-systematic approach are the Uppsala model, geographic proximity, the network approach, the mimetic approach and answer to orders from fairs.

According to the Uppsala model, the main barrier to the most adequate market selection process is the lack of knowledge. The choice of where to internationalize is strongly affected by psychic distance – culture, language, physical distance – and also interdependencies of the markets (Johanson & Vahlne, 2003; Buckley & Casson, 1998; Dow 2000; Westhead et al, 2001). The bigger the psychic distance the more difficult it is to obtain and understand information about that market (Johanson & Vahlne, 1977). Firms will then decide to internationalize to markets psychically closer since the market selection process is performed with the goal to minimize this distance. The more firms internationalize, the more they gain experience and can reach more psychically distant markets.

According to Ghemawat (2011), there are more distances to consider. Geographic distance, as well as natural resource availability and historical connections play an important role in the countries that companies choose to do business with. One example is that even though there are separatism issues in Spain's Basque Country, the trade of the region with the rest of Spain is 50% higher than with the rest of the world. Thus, applying this concept to this research, it is much more likely that Spain will be interested in buying Portuguese wine because of the shared wine regions and the proximity between the two countries than a country in another continent such as Oceania.

Another important model that discusses the importance of geographic distance is the gravity model. This model is one of the most relevant empirical models in economics, first explored by Tinbergen (1962) to research trade flows (Anderson, 2011). Fundamentally, the model brings an analogy with the "Law of Universal Gravitation" developed by Newton that states that mass of goods or labor or other factors of production at an origin is attracted to the demand of the same factors in a destination, but the potential amount of exchange between the two is reduced by the greater the distance between them (Anderson, 2011). Therefore, not taking into consideration other factors that could influence trade – such as tariffs and demand blockers –, in a simplistic way, countries would tend to choose to have business with destinations geographically closer to them.

The relationship approach focuses on the business relationship between the firm and the selected international market (Andersen and Buvik, 2002). Aspects such as awareness, exploration, expansion, commitment, and dissolution were defined as decisive when selecting the best international partner and lack of knowledge and uncertainty are the main obstacles in this process. This approach contributes to solving the lack of information many firms have when going through IMS (Correia & Meneses, 2021). Several firms have access to key information and transfer knowledge via relationships (Schweizer et al, 2010). This means that the individual internationalization process depends on the network's internationalization and in some situations, firms do not select new markets, they select partners or are selected by partners (Correia & Meneses, 2021). Firms evolve through the process of acquiring more knowledge and influencing other firms, thus, IMS will be performed with the increase and enhancement of the firm's network and knowledge, and the market selected is dependent on this knowledge flow.

According to Johanson and Mattsson (1988), relationships between firms start when there is a mutually exchange between them. In the network approach, development activities are very influenced by the relationships firms have between each other, the position they take in their networks and the possibility of access to external resources (Johanson & Mattsson, 1988). Networks are mainly divided into two sections: informal and formal (Ibarra, 1993). The first refers to the flexible and individual relationships not exclusively related to work matters (Ibarra, 1993), several studies highlight the importance of informal networks in internationalization (see: Dana, 2001; Ellis and Pecotich, 2001; Zain and Ng, 2006), however, in order to stop the informal networks to become a disadvantage to the participating firms, the networks must be enhanced throughout time. Formal networks are defined as formally defined relationships between different groups of people that interact to achieve a defined goal (Ibarra, 1993).

A good example of a formal network is ViniPortugal, manager of the brand Wines of Portugal, which promotes Portuguese wine to the world. Founded in 1996, "the network represents the entire wine sector in Portugal and its goal is to promote the quality and excellence of Portuguese wines" (ViniPortugal, 2023). The network has the goal to develop and implement innovative strategies that place Portugal in a strategic position in the wine sector, focusing in 21 strategic markets.

The mimetic approach, especially relevant for SME's due to their resource and time constraints (Bikhchandani et al, 1998), is when firms imitate the behavior of other firms in their sectors based on the assumption that it should be a path for success (Correia & Meneses, 2021). Bikhchandani et al (1998) state that companies act based on social learning, which means that they observe the action and consequences of companies in the same sector and define their IMS strategy. The limitation of this approach is that all firms will mimic the actions of other companies being it the most adequate or not to their own strengths and weaknesses (Correia & Meneses, 2021).

Several IMS studies focus only on the firm's point of view, the seller, however, it is important to note that many empirical studies point out the importance of selecting an international market based on the buyer, that means, to answer a specific order (Andersen & Buvik, 2002).

2.4 International Market Selection for SME's

In recent years, SMEs have received increasing investigation interest due to the globalization procx'ess, decrease of trade barriers, better communication and integration systems, and reduced transportation costs (Musso & Francioni, 2012). These companies employ most of the workforce and have an important role in the countries' economic growth and development (Musso & Francioni, 2012). The increased research interest in these companies derived from the increased participation of these firms in international markets, which are an alternative to the limited growth domestic market (Franco & Martins, 2020). Overall, the internationalization process for SMEs differs from MNEs because the smaller the firms usually less likely they have well-developed processes and procedures and are more prone to having opportunistic (not systematic) behavior when it comes to decision-making (Van Hoorn, 1979; Musso & Francioni, 2012). Additionally, SMEs more commonly lack international managerial experience and know-how, crucial for selecting the best foreign market (Karagozoglu & Lindell, 1998). Musso and Francioni (2012) tested the behavior of Italian SMEs' IMS processes and found that these companies do not follow a systematic approach. The investigation suggested that smaller firms find it difficult to select and use the adequate methodology for their characteristics and scenario. The primary and most important factor that influences a firms' IMS decision is market attractiveness as well as firm-specific characteristics, however, natural entry barriers – such as cultural and geographical distance – did not exert a great impact in the process (Musso & Francioni, 2012).

The Uppsala model, developed by Johannson and Vahlne (1977), states that the main driving force in SMEs' internationalization process is market knowledge (or the lack of) (Carneiro et al, 2008). Market knowledge is perceived as the firm's accumulated experience through markets and the psychic distance between the country of origin and destination (Carneiro et al, 2008). Johanson and Vahlne (2009) realized that the Uppsala model developed in 1977 was missing a major player in the process: networks. Johanson and Vahlne (2009) conclude that knowledge is not acquired only from the firms' own activities, but it also comes from the activities of its partners, providing the firm an extended knowledge base. In the SME context, networks allow firms to enter markets that are psychically and geographically unreachable, also allowing these firms to suppress capability and resource deficiencies when going through the internationalization process (Franco & Martins, 2020).

The network approach is more attractive to SME's due to its lack of time, resources, and knowledge (Franco & Martins, 2020; Drochtert, 2022). To reduce the risks associated with the IMS process, SMEs engage in networks with other firms or institutions to be able to accelerate and elevate the internationalization process to another level (Franco & Martins, 2020). Networks drive and encourage firms to internationalize, support their IMS process, increase their credibility, enable access to different relationships and channels, reduce costs and mitigate the process risks, thus influencing the internationalization pace and pattern (Zain and Ng, 2006).

2.5 Investigations of the Wine Sector

Firms in the wine sector usually seek exports as their first steps towards an international expansion, possibly being a gateway to further commitments abroad (Franco & Martins, 2020). There are two major aspects to focus when starting its IMS process: external and internal factors. External factors regard the characteristics of the country and the process itself and one of the first and main factors to consider when selecting an international market are cost, and macroeconomic and socio-politic factors (Baena- Rojas, 2021; Vanegas-Lopez et al, 2020; Ozturk et al, 2015). Variables such as trade flows- and natural or artificial factors that affect them in the country of origin and destination- (Macedo et al, 2019), as well as, cultural barriers (Vanesgas-Lopez et al, 2020) can also affect the acceptance and success of the firm in the international market.

Dal Bianco et al (2016) researched the impact of tariff and non-tariff barriers on wine trade and observed a negative effect on trade of a home-bias variable – the production of wine in the country of destination –, wine-specific tariffs and constraining technical barriers (Macedo et al, 2019). Furthermore, they concluded a positive impact on the country of destination Gross Domestic Product (GDP) and language similarities. Due to the fact that wine has a long term storing time, the researchers found a much lower negative impact on distance than previously studies on the sector assumed.

The internal aspects refer to the characteristics of the product itself such as price, quality and competitive advantages that make their product unique as well as the adaptation costs of the product in the foreign market (Górecka & Szalucka, 2015; Root, 1998). The more a product can be differentiated from its competitors more likely it can access niche marketing and allows firms to hold a strong competitive advantage when entering a foreign market (Bamberry & Wickramasekara, 2012). Wine is a product that is highly priced and

differentiated (Del Bianco et al, 2016) and can have several aspects that make the product unique such as taste, pack size, color, price, type of grapes, soil, country of origin and region (Mehta & Bhanja, 2017). Macedo et al (2019) point out the importance of horizontal differentiation in this sector and exports of different types of wine are affected differently by macroeconomic indicators.

Macedo et al (2019) compared the main differences between exports in two separate analyses of Portuguese wines: (i) still and fortified wine; (ii) Vinho Verde, Douro wine and Port Wine. Tariffs and home bias have a negative impact on the exports of still wine while purchasing power has a positive correlation with it, fortified wine on the other hand have a negative relationship with the real exchange rate (Macedo et al, 2019). For the second set, Macedo et al (2019) found that tariffs do not hold a strong effect on any of the three wines, purchasing power has a stronger positive relationship with Vinho Verde, home bias has a strong negative relationship with Vinho Verde, and Douro wine and the real exchange rate affects more the exports of Port and Douro wine.

When a firm decides to embark on the internationalization process, many can be the determinants of its export success. Karelakis et al (2008) developed research on the possible problems Greek wineries face when exporting and the main findings are that export competence, environmental factors, internal capabilities, and knowledge of the internationalization process are the main drivers of the companies' export success. Maurel (2009) points out the importance of export knowledge and commitment, innovation of the product, quality of the firms' business partners, and customers' expectations and tastes as the main factors of export success for French wine SME's.

As for specifically Portuguese wineries, Behmiri et al (2019) researched the main determinants of success in Portuguese wine exports and found that for Port wine and Douro region wine, size plays an important role in the process, especially for younger firms. There is a positive relationship between export levels and age being higher for smaller firms and there is a negative relationship between export tendency and age for bigger firms. Moreover, the literature on the determinants of export success in the wine sector overlooks the role of the international market selection process.

Franco and Martins (2020) state that the Portuguese wine market is saturated, thus internationalization is an interesting way to explore other opportunities. The SMEs in

Portugal have great knowledge of the sector and they collaborate to increase awareness and the strengthen the countries' image when it comes to producing great wines, so the inter-organizational networks assessed in the investigation greatly contributed to the firms' success abroad, being it (networks), the most used process chosen by the wineries studied (Franco & Martins, 2020). For instance, the SMEs of the region of Ribatejo have help from the association ViniPortugal that provides data and studies on possible markets for the wineries to start their process, highlighting the importance of market knowledge in the IMS process.

As previously mentioned, due to the fact that the wine market in Portugal is saturated, internationalization can be very attractive for firms, especially for SME's. The main motivations for any company to export are many, however, the most relevant for this research are increase of revenue, reaching markets with higher value, diversifying revenue sources, competitive advantages, promoting the wine region, promoting the wine country, reputation, branding, and risk diversification (Kubíčková, 2014; Dunning, 2000; Vivas & De Sousa, 2012; Ozturk et al, 2015; Olmos, 2011; Harrigan et al, 2012; Karelakis et al, 2008; Franco & Martins, 2020; Oey, 2018).

2.6 Conclusion

Given the literature review provided in this section, this thesis investigated the international market selection approaches that wineries in Portugal adopt and their relationship to the wineries' success in the process. The main conclusions of the literature review are found on Figure 5*:* Overview of International Market Selection Literature, as well as the most used approaches for the research topics of this thesis.

Figure 5: Overview of International Market Selection Literature

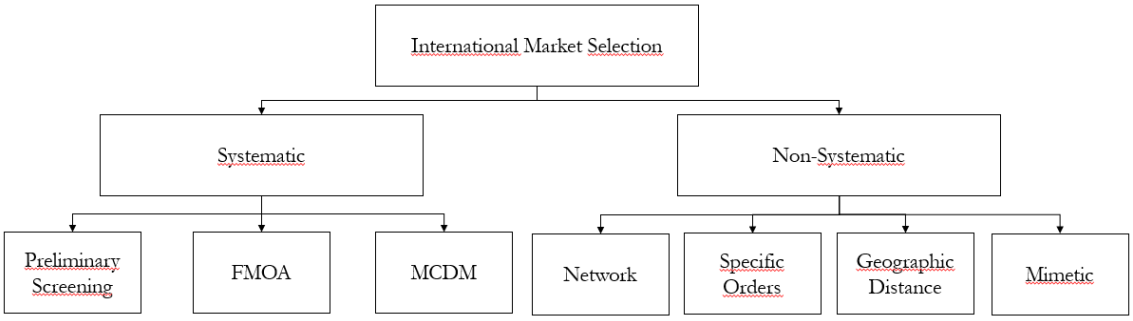


Figure 5: Overview of International Market Selection Literaturedescribes the main international market selection processes split into the two main approaches previously discussed: Systematic and Non-Systematic. While the systematic approach takes structured

steps to select a foreign market, which includes the employment of more resources; the Non-Systematic approach does not follow a set of pre-defined rules and requires less usage of resources. Thus, if the systematic approach uses more resources, it makes sense that bigger firms can get ahold of them and take advantage of these methods.

According to several studies (Root, 1998; Andersen & Buvik, 2002; Westhead et al, 2001; Dow 2000; Buckley & Casson, 1998; Koch 2001), the systematic method requires tools and resources to develop a well-structured decision-making process. This implies that companies should employ resources to be able to use this method for IMS. Thus, one of the research questions for this dissertation is to identify if characteristics of the winery, namely if it belongs to an IPR and the size, really do influence which method the wineries select.

This research extracted as much information as possible about the Portuguese wine sector and how IMS is influenced by the wineries' characteristics and how IMS influences in the wineries' success. In conclusion, throughout the next sections, the methodology, statistical analysis results and conclusion were further explored.

3. Methodology

This research used a quantitative methodology of hypotheses testing to answer the research questions as well as an exploratory and confirmatory analysis using two main non-parametric tests. Initially, two different types of hypotheses were tested to convey if characteristics of the wineries affected their IMS method selection. Due to the fact that the wineries belonged to several DOC regions of the country – which indicates a good thing when it comes to the representativeness of this research -, the question on whether a winery belonged to an IPR (if it belonged to an IPR the attributed answer was 1 and otherwise it was 0) was selected to be more suitable to perform statistical tests. The second hypothesis tested was the dimension of the winery, a 0 was attributed to microenterprises, 1 was attributed to small enterprises and 2 was attributed to medium enterprises according to definition of INE (Instituto Nacional de Estatística – National Institute of Statistics) (INE, 2023).

As a second step, it was tested whether the selection of any of the previously mentioned IMS methods influenced the wineries' success in internationalization and how likely they reached their initial objectives when undergoing the internationalization process. Trying to define the concept of success would limit the results to a parameter that cannot possibly regard each companies' reality and objectives, therefore the definitions of success were individually surveyed by each of the wineries and their own scenarios, products, revenues, and goals. The hypothesis tested were as follows:

H_{10}: Being in an IPR region is not related with the International Market Selection method used

H_{11}: Being in an IPR region is related to the International Market Selection method used.

H_{20}: Being in an IPR region is not related to the Motivations to Internationalization

H_{21}: Being in an IPR region is related to the Strategic/Marketing Motivations to Internationalization

H_{30}: The dimension of the winery is not related to the International Market Selection method used

H_{31}: The dimension of the winery is related to the International Market Selection method used

H_{40}: The dimension of the winery is not related to Motivations to Internationalization

H_{41}: The dimension of the winery is related to Strategic/Marketing Motivations to Internationalization

H_{50}: Internationalization's success is not related to the International Market Selection method used

H_{51}: Internationalization's success is related to the International Market Selection method used

H_{60}: Internationalization's success is not related to the Motivations to Internationalization

H_{61}: Internationalization's success is related to Strategic/Marketing Motivations to Internationalization

H_{70}: Internationalization's objectives success is not related to the International Market Selection method used

H_{71}: Internationalization's objectives success is related to the International Market Selection method used

H_{80}: Internationalization's objectives success is not related to the Motivations to Internationalization

H_{81}: Internationalization's objectives success is related to the Strategic/Marketing Motivations to Internationalization

Throughout the next sections, the data series gathering, questionnaire formulation and statistical analysis were be further described.

3.1 Data Series

For the purpose of finding the suitable and trusted database of available wineries in Portugal, a database was extracted from SABI. SABI is an institution that consolidates and treats private company information, so it is reachable, trustworthy, and effective (Bureau Van Dijk, 2023).

The database used for this research was extracted on 22nd of March of 2023, using filters for industry, type of industry, country, status, and email address. The filters selected were the Wine Sector in Portugal and the result contemplated 595 companies – for more information regarding the data extraction, refer to Figure 7 in the Appendix.

3.2 Questionnaire

Questionnaires are a relevant research method, because, since each respondent is asked to answer the same set of questions allowing the researcher to map the differences between them in an effective manner (Saunders et al, 2019). Questionnaires, however, have a few attention points, such as potential data loss due to an ineffective questionnaire and the impossibility of reaching out to the respondents afterwards (Saunders et al, 2019). Thus, it is very important to develop a questionnaire that contemplates all research questions and that can be used to quantitative analysis.

After the Literature Review, the questionnaire was formulated to capture Portuguese wineries' International Market Selection experience. The questionnaire was preferred over an interview with the goal to be able to obtain information from as many wineries as possible and define the different approach each winery use based on region, size, and international presence. Also, with the goal of obtaining as much information as possible, this questionnaire was self-completed, and internet based. The survey was sent on four separate dates on March 30th, April 12th, April 18th and April 28th, 2023, to the entire list of 595 wineries.

The Questionnaire is a mix between open questions (How, What, etc) and closed questions (eg., Rate the importance from 1 to 5; Rate the frequency in which you performed such activities from 1 to 5) in Likert Scale. The Likert Scale was developed in 1932 by Rensis Likert and it is an ordinal scale to measure the degree of someone's agreement to a statement (Bertram, 2006). To answer the formulated research questions, the closed questions are used to gain quantitative insight and the open-ended questions are used as qualitative research to enrich the analysis. Thus, the questionnaire consisted of 30 questions that assessed the following topics:

a) Role of the respondent (Q1)
b) Characteristics of the winery (Q2-Q8)
c) Internationalization participation (Q9)
d) Internationalization – Challenges (Q10)
e) Importance of Internationalization and International Market Selection, international presence, motivations of internationalization (Q11-Q16)
f) International Market Selection – different approaches described (Q17-Q24)
g) Experience with exports (Q25-Q30)

The design of the questionnaire affects the reliability and response rate of the data collected (Saunders et al, 2019). A few steps must be taken to ensure the questionnaire's validity, such as careful design of individual questions, a coherent layout of the questionnaire, and a comprehensible explanation of the purpose of the questionnaire (Saunders et al, 2019). Thus, the questionnaire used in this dissertation followed the literature review developed to this research and was designed to be as succinct as possible. Table 16 in the appendix describes all questions of the questionnaire, the purpose of each question and the literature associated with the question. Nevertheless, it is important to describe the literature used for questions of international market selection approaches, which can be found described in the Table 1.

Table 1: Literature on International Market Selection methods questions

Question	Literature
17. Followed pre-determined steps to International Market Selection	Koch (2001); Kumar et al (1994); Root (1998); Oey et al (2018)
18. Performed an Analysis of Market Opportunity	Ozturk et al (2015)
19. Analyzed criteria below with weights based on importance: (Multicriteria Decision Making Method)	Cavusgil (1997), Baena-Rojas et al (2018); Vanegas-López et al (2020); Dal Bianco et al (2016); Castillo et al (2016); Dascal et al (2002); Macedo et al (2019); Baena-Rojas et al (2022); Ahi et al (2019)
20. Made decisions regarding internationalization based on information from: networks; informal relationships; relationships with clients, suppliers, distributors, or other business partners	Johanson & Mattsson (1988); Johanson & Vahlne (2009); Franco & Martins (2020); Zain and Ng (2006)
21. Selected a market based on geographic proximity	Johanson and Vahlne (1977); Ghemawat (2011); Anderson (2011)
22. Selected a market based on experience with: competitors, wineries similar to yours, wineries that are very successful	Meseses & Correia (2021)

23. Sold to an external market to respond to a specific purchase	Andersen & Buvik (2002)
24. Selected an international market based on a purchase obtained at a fair	Andersen & Buvik (2002)

Due to the specificity of the wine sector, the most referred factors of decision-making are GDP, size of consumer markets, revenues of the country of destination, purchasing power, risks, tariffs, economic growth rate, population growth rate, firm's growth rate, costs, per capita consumption, number of competitors, market concentration, language similarities, geographic distance, cultural similarities (Baena-Rojas et al, 2018; Vanegas-López et al, 2020; Dal Bianco et al, 2016; Castillo et al, 2016; Dascal et al 2002; Macedo et al, 2019; Baena-Rojas et al, 2022; Ahi et al, 2019). Thus, this research included those factors into the methods questions.

3.3 Statistical Analysis

In this research, the main goal is to reach valuable conclusions on the International Market Selection process that can help wineries engage in or even be more successful in it. With that in mind, a statistical analysis was performed. In statistics, there are basically two areas: descriptive statistics and inferential statistics (Sheskin, 2011). The first refers to the data being used for descriptive reasons, meaning data is summarized and presented as it is, while the second type of analysis uses data to draw conclusions (Sheskin, 2011).

In order to perform statistical tests in data, it is almost impossible to gather data of all the population in the field of study, instead, it is necessary to find a sample that will represent the characteristics of the population and can be used in statistical tests (Sheskin, 2000). To perform statistical tests, it is important to understand two concepts: statistics and parameters. A statistic is a characteristic of the sample, for example, the mean and median, and the parameter is a characteristic of a population (Sheskin, 2000). The main statistics that are used for descriptive and inferential analysis are measures of central tendency and measures of central variability (Sheskin, 2000). This dissertation is an exploratory research, and it was used different methodologies to understand the correlations between the data. First, it was performed a descriptive analysis of the data, then hypotheses were tested using the nonparametric tests Mann-Whitney and Kruskal-Wallis.

3.3.1 Hypothesis testing

According to Sheskin (2000), a hypothesis is a prediction of a population or a relationship between populations, thus, the procedure of testing it is when a sample is used to assess a hypothesis. There is a difference between research hypothesis and a statistical hypothesis. The first refers to the research question of what the researcher predicts, for example in this dissertation, i) the size of the winery impacts which approach it will choose in IMS; and ii) the IMS method select affects the outcomes of the winery in the internationalization process. The statistical hypothesis is the way the research hypothesis is formulated in two ways so it can be analyzed statistically (Sheskin, 2000).

The two statistical hypotheses are represented by H_0, the null hypothesis, and H_1 the alternative hypothesis. The null hypothesis represents the idea of no change while the alternative hypothesis indicates the presence of an effect (Sheskin, 2000). Thus, as usually the research hypothesis seeks to analyze an impact of a population on the other, the most expected result is to reject the null hypothesis (Sheskin, 2000). The hypothesis testing is, however, subject to a test of significance. According to Sheskin (2000), the scientific convention settled that to declare a difference statistical significant, there cannot be more than a 5% likelihood that the difference is random. Therefore, the notation $p<0.05$ is used to indicate if the tests results are statistically significant or not (Sheskin, 2000).

3.3.2 Parametric and Nonparametric tests

According to Sheskin (2000), most of the inferential statistical procedures are categorized in parametric or non-parametric tests. Usually, parametric tests require assumptions on the distribution of the population that the data was sampled (IBM, 2021). Nonparametric tests, however, do not require any assumption on the distribution of the sample, so the distribution of population is unknown making it necessary to test hypothesis (IBM, 2021). In general, the most common tests used to evaluate categorical/nominal data and ordinal/rank-order data are the nonparametric tests (Sheskin, 2000). This research uses several Likert Scale questions- ordinal data-, so, nonparametric tests were the most adequate choice to perform hypothesis testing. It was performed two different tests, the Mann-Whitney and the Kruskal-Wallis, which will be further explained in the next section.

3.3.2.1 Mann-Whitney test

The Mann-Whitney test was developed by Mann and Whitney in 1947 and it is employed to test if two independent samples have the same distribution and median (Nachar, 2008; Sheskin, 2000). The null hypothesis states that the medians of both samples do not differ, and the alternative hypothesis states that the medians differ (Nachar, 2008). The test requires three assumptions: first the two groups investigated need to be randomly drawn from the target population – for randomness to be achieved, there must not be measurement and sampling of errors; second each observation must be of a different participant; and lastly the data must be or ordinal or continuous type.

3.3.2.2 Kruskal-Wallis test

The Kruskal-Wallis test was developed by Kruskal and Wallis in 1952, it is an extension of the Mann-Whitney test and is used when there is more than two independent samples (Sheskin, 2000). If the analysis rejects the null hypothesis, then it means that there is a difference between the medians of at least two of the sample medians (Sheskin, 2000). This test also requires three assumptions: 1) all samples must be random; 2) there must be mutual independence inside each sample; 3) the scale of measures should be ordinal (Springer, 2008).

4. Results and Discussion

In this chapter, outcomes of the analysis performed on the collected data are presented. The main goal of the Results and Discussion section is to provide a comprehensive exploration of the findings derived from the research data, while also deepening into their implications, significance, and alignment with the research objectives. This section is divided into descriptive analysis – which refer to a broader and general interpretation of the data – and non-parametric tests – which were performed Mann-Whitney and Kruskal-Wallis tests. The outcomes are a combination of the interpretation of the statistical analysis and the open-ended qualitative questions.

4.1 Descriptive analysis

As mentioned on the last section, the goal to use a questionnaire on this research was to convey as many answers as possible to grasp how the International Market Selection process occur depending on characteristics of the wineries. Of the entire database extracted from SABI of 595 wineries four different emails were sent and 60 answers were obtained. Nevertheless, a filter question was included to ensure that the people who answered the full questionnaire were involved in the internationalization decision making process, and 11 people answered "No" to being related to this role. Therefore, 49 out of 60 answers were valid for this research.

The wineries belong to several different DOC regions, all specified in the Table 2. For statistical analysis matters, this research did not consider the DOC region as a potential factor of interference in the IMS process due to its high dispersion. Instead, the answers for IPR were used to determine if wineries that belonged to regulated provenience have different IMS processes of those who do not. Thus, this variable was treated as a dummy variable (0 if the winery does not belong to an IPR and 1 if it does).

Table 2: Wineries DOC regions

DOC Region	Number of Wineries	Percentage of Total
Douro[1]	15	31%
Vinhos Verdes	8	16%
Dão[1]	4	8%
Palmela[2]	4	8%
Tejo[1]	4	8%

Lisboa[1]	3	6%
Alentejo	3	6%
Bairrada[1]	2	4%
Óbidos	2	4%
Monção and Melgaço	1	2%
Pico	1	2%
Madeira	1	2%
Algarve	1	2%
Setúbal[2]	1	2%
Porto	1	2%
No DOC region	3	6%

[1]One winery belong to all the regions classified with one; [2]One winery belongs to the regions classified with two

The wineries were classified into three separate sizes based on the answers for its size and business volume, and they are: microenterprise (employs a maximum of 10 people or has annual business volume until 2 million euros), small enterprise (employs from 10 to 50 people or has annual business volume ranging between 2 and 10 million euros), medium enterprise (employs 50 to 250 people or has business volume ranging from 10 to 50 million euros) (INE, 2023). In this sample, the firms are classified as follows: 29 microenterprises, 10 small enterprises and 10 medium enterprises.

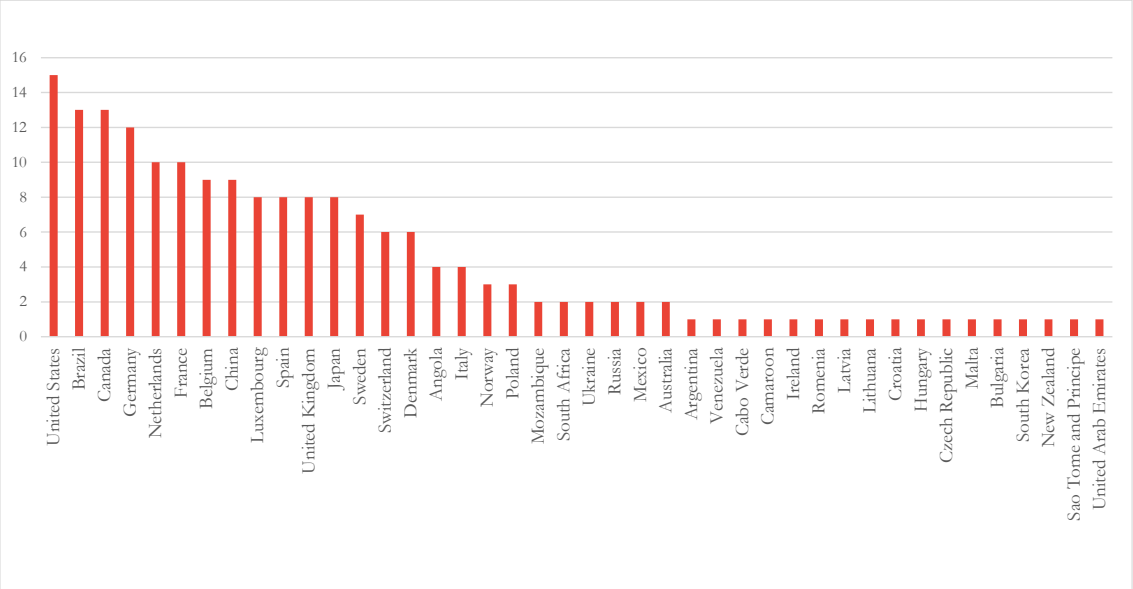
This research also wanted to convey how the process of IMS most frequently works, thus, there was a question to filter the wineries that already export. Of the microenterprises, eight answered they do not engage in internationalization and the main reasons for that are: small production, lack of contacts and small dimension. None of the wineries appointed that internationalization is not important or not their focus, which indicates that the topic of this dissertation is very relevant to the sector and country. The reasons for not internationalizing involve internal factors of the wineries and a very important matter: lack of contacts. This is a possible future research venue, and it shows the importance of having studies in this field, to assist and improve their knowledge in internationalization.

That leaves 41 valid answers for further statistical analysis. Overall, 85% of the wineries answered that exports are important to them (answers 4 and 5 in the Likert Scale)

and 98% answered that selecting the adequate international market is important, highlighting the importance and relevance of this research.

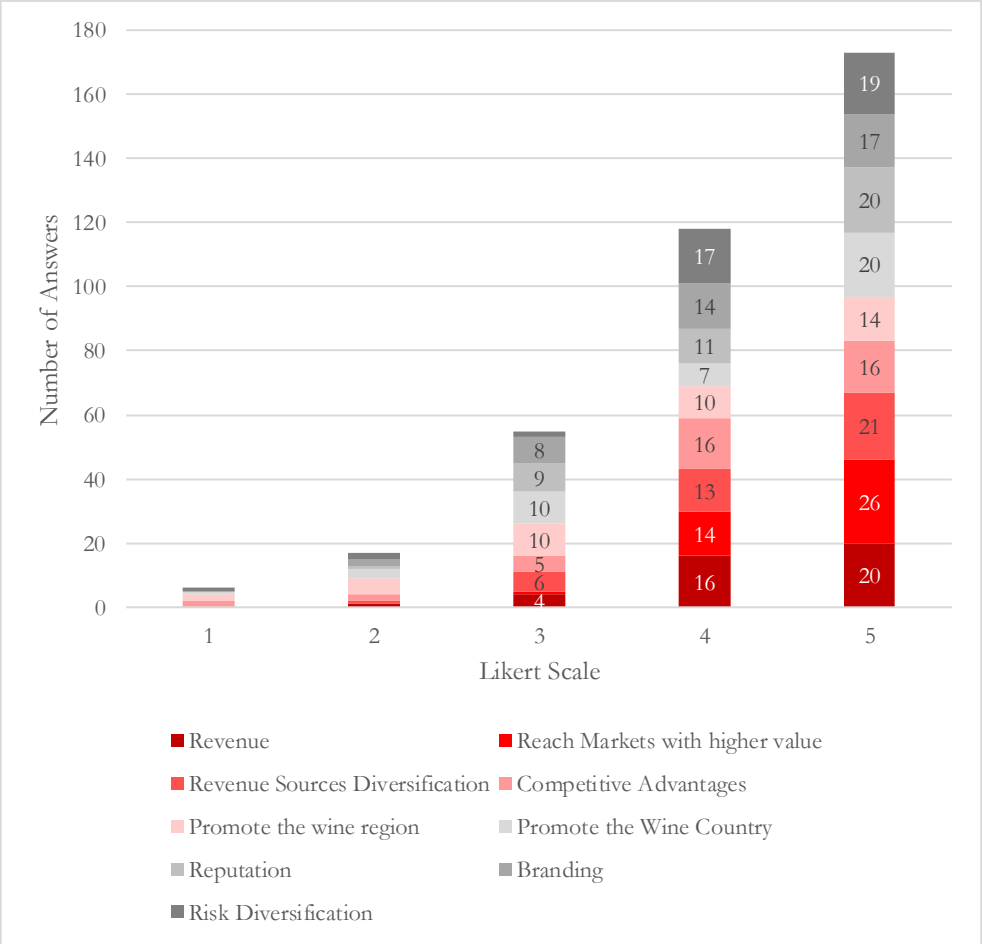
The main markets that the wineries in this sample already operate in are in North America - United States of America and Canada-, South America – Brazil -, Europe - Germany, Netherlands, France, Spain, Luxembourg, and Belgium, among others -, Africa - Angola -, Asia - China and Japan - and Oceania - Australia and New Zealand - as can be observed in Figure 6: Countries that the wineries make trade with.

Figure 6: Countries that the wineries make trade with



The wineries export different percentages of their own production ranging from 5% to 97% of annual production that is sold to international markets. The main motivations for exports of the respondents of this research are reaching markets with higher value and diversifying revenue sources, all of which had a median of 5 in the Likert scale. Nevertheless, the other motivations for internationalization, namely revenue seeking, competitive advantages, to promote the region of the wine, to promote the country of the wine, reputation, branding, and risk diversifying are also relevant, having a median of 4 in the Likert Scale. Overall, the wineries answered they had success in their internationalization process and could achieve their goals with internationalization, having a median of 4 in the Likert Scale for both questions.

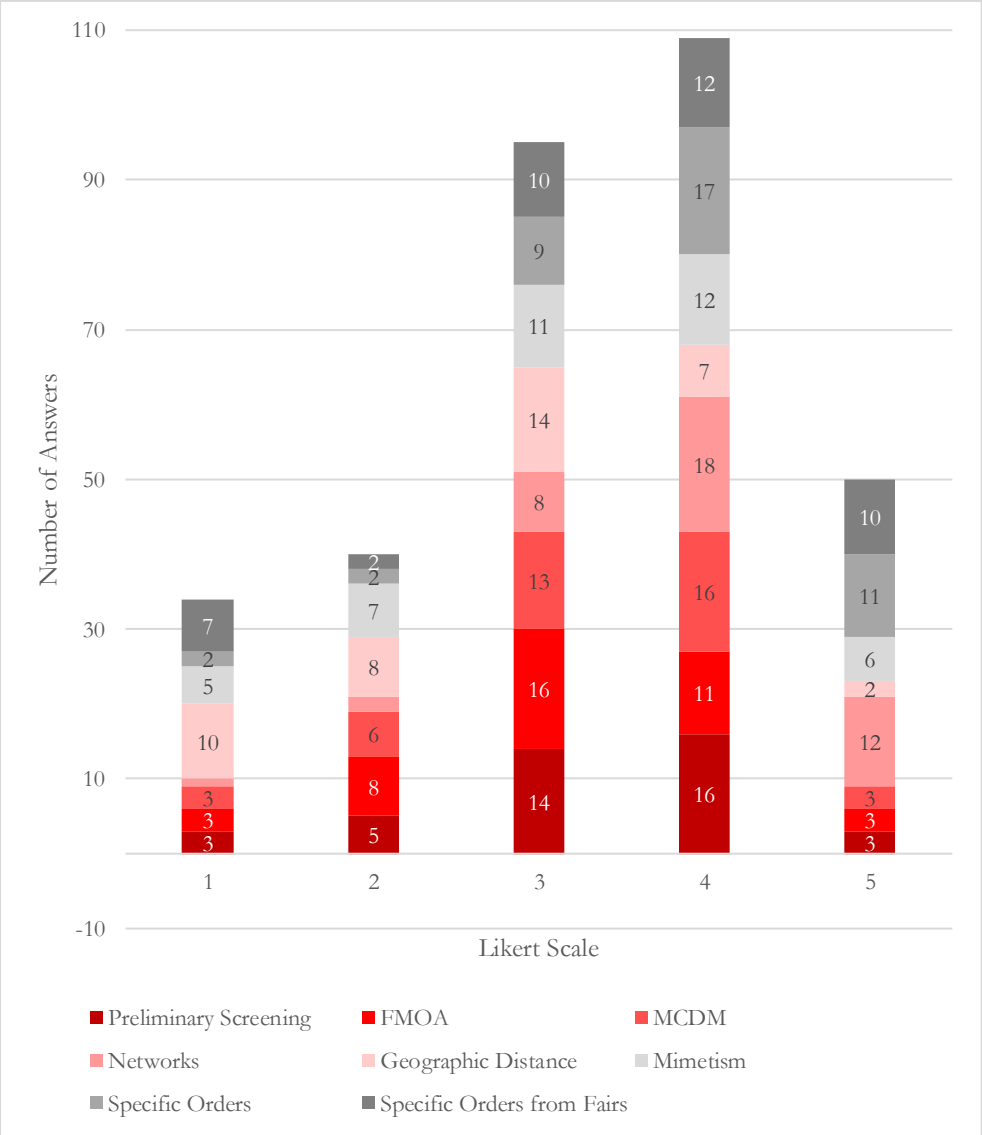
Figure 7: Number of Answers for each of the Motivations for Internationalization in Likert Scale



Source: Answers from Questionnaire of this Dissertation (2023)

The questionnaire covered all the methods for IMS described in the literature review section and the methods were structured into separate questions and sub questions to understand if certain criteria are more relevant than other. With that in mind, the more frequently used method of IMS of the wineries that answered to this questionnaire are: **Multi-Criteria Decision Making, Networks, and responding to specific orders** (directly from clients or from fairs). All of these methods have a median of 4, while the rest of methods – Preliminary Screening, Foreign Market Opportunity Analysis (FMOA), Geographic Proximity and Mimetism – had a median of 3 in the Likert Scale. Nevertheless, it is important to note that none of the methods had lower medians in the Likert Scale, which indicates that no method is not frequently used in the wine sector at all.

Figure 8: Number of Answers for each of the IMS Methods in Likert Scale



Source: Answers from Questionnaire of this Dissertation (2023)

4.2 Qualitative Analysis

The research also included qualitative questions aiming to understand how the wineries usually engage in IMS with more specific details. One of the most important factors that wineries consider more often when choosing the adequate market to internationalize is relationships with customers, intermediaries, institutions, and presence in fairs. The wineries also consider the consumer market of the destination country, namely wine consumption, and presence of other wines from the region or country that are already successful. As for a new experience in the IMS process, the most frequent answer was competitive markets that have a high growth potential and markets that have demand for similar wines. The IMS process is not an easy task, and one rule does not apply to all wineries, as very well explained

by a respondent (Questionnaire of International Market Selection in the Portuguese Wine Sector, 2023):

> The selection of international markets can be a complex task, which involves several variables. Some of the most common methods for selecting international markets include:
>
> Macroeconomic Data Analysis: This method involves analyzing macroeconomic factors such as market size, GDP per capita, exchange rate, trade barriers and existing trade agreements. This data is useful for assessing growth potential and market risks.
>
> Market Research: Market research can be performed to assess demand and competition in a specific market. This research may include interviews with consumers and competitors, analysis of consumer trends and assessment of the regulatory environment.
>
> Competitor Analysis: Competitor analysis can help assess a market's potential by identifying competing companies and their respective market positioning. This analysis can be performed by observing direct and indirect competitors, analyzing their marketing strategy and cost structure.
>
> Selection by cultural affinity: this method considers the cultural similarity between the company's country of origin and the market in question. This cultural similarity can facilitate the adaptation of the company to the needs and preferences of the market and increase the acceptance of the product/service.
>
> It is important to remember that the selection of international markets must be a strategic decision and that it must be based on careful and detailed analysis. The choice of selection method must be made according to the specific needs and objectives of the company.

In a future opportunity to engage in IMS, the respondents stated that it is important to look for markets that are able to buy their wines and to include wine in their lifestyle. However, the most important step to reach new markets is to establish relationships that enable the wineries to sell their products and in fact reach the consumers in the country of destination. One good way to establish these relationships that was often mentioned in the questionnaire was the participation in international fairs.

The wineries also point out the importance of performing a market analysis, considering factors such as macroeconomic indicators, competition, trends, and growth opportunities in the countries of destination. In addition, another relevant approach is market segmentation where the wineries find their target consumer in several different locations and develop a strategy to export to all of these locations. Last, but not least, it is important to take into account logistics and regulatory aspects as well as cultural barriers and certifications necessities and the winery's own capacity to attend this new market.

The respondents' answers are in line with literature of IMS of two different approaches. The first is the importance of networks in IMS (Johanson & Mattsson, 1988; Johanson & Vahlne, 2009; Zain and Ng, 2006), especially in the wine sector as well explored by Franco and Martins (2020). The other approach explored in this dissertation and mentioned by the wineries were Multi-Criteria Decision-Making. The wineries highlighted the importance of weighing several factors to reach an informed decision as explored by Baena-Rojas et al (2022), Vanegas-Lopez et al (2020), Oey et al (2018) and the main factors to analyze are macroeconomic indicators, market segmentation, target customer, purchasing power, logistics, and tariffs.

The wineries that had success in their internationalization process highlight the importance of choosing the adequate international market and the importance of reaching several markets, reducing the risk of depending on only one. They also point out that there is a lot of space in foreign markets still to explore, even if the winery is already trading with a market. Wine is a niche product and wineries should look for space where there is demand for it and where Portuguese wine is differentiated from the products in the market.

On the other hand, the wineries that did not reach their goals in internationalization point out that lack of resources, lack of knowledge, high costs and lack of union in the country of origin as the main reasons for a poor performance. The survey data identifies high costs, challenges in finding suitable intermediaries, and difficulty in establishing long-term customer relationships as the primary hurdles faced by wineries in this process.

Despite the fact that the descriptive analysis indicates that the Multi-Criteria Decision Making, Networks, and responding to specific orders are the most commonly used IMS methods, this research aims to investigate deeper into the relationship between the selected methods and the wineries' characteristics and success. Additionally, two distinct non-

parametric tests were used to examine the relationship between success and the chosen methods, as explored further in the next section.

4.3 Statistical Analysis

In this section, the entire statistical analysis is detailed describing the process necessary to handle the database as well as the non-parametric tests used to validate the hypothesis previously mentioned in the prior section and further explained into the next section.

4.3.1 Database Handling

The answers to the questionnaire used in this research were very diverse and a few adjustments were necessary so the statistical tests could be performed. The goal of these adjustments was to make the database more statistical readable that could draw conclusions. The main adjustments regard the grouping of similar data and the grouping of sub questions inside one question of the whole method. All the grouping of the variables were performed based on literature or on two main statistical procedures, namely exploratory factor analysis and confirmatory factor analysis.

As described in the previous section, the wineries in this study were of various locations, which resulted in 13 different DOC locations. Thus, for this reason, the DOC were not used to identify possible relationships with the methods. Instead, it was used the IPR data and it was reduced to whether the winery belongs to an IPR or not. The next adjustment was regarding the size, the wineries were distributed micro, small and medium enterprises by number of employees and business volume. Thus, there were in total 21 microenterprises that were attributed the number 0, 10 small enterprises that were attributed the number 1 and 10 medium enterprises that were attributed the number 2.

Following this step, the main motivations for internationalization was the first question that was divided into sub questions, thus, it was necessary to group them. It was performed the exploratory factor analysis and the results are presented in Table 3. The results show that the motivations revenue, competitive advantages, diversifying revenue sources and diversifying risks can be grouped into one variable and the motivations branding, to promote the region of the wine, to promote the country of the wine and reputation can be grouped into another variable. The first group was called the Strategic Motivations, due to the fact that it refers to management and company's performance factors and the latter was called

Marketing Motivations, since it refers to factors more related to the image of the company. The reliability analysis shows that both groups are reliable (Cronbach $\alpha > 0,7$) as presented in Table 3 and Table 4.

Table 3: Matrix of rotative components

Type of Motivation	Component	
	1	2
Revenue	0,356	**0,727**
Markets with Higher Value	0,227	**0,595**
Revenue Source Diversification	0,085	**0,735**
Competitive Advantages	0,218	**0,637**
Promotion of the Wine Region	**0,900**	0,160
Promotion of the Wine Country	**0,833**	0,071
Reputation	**0,768**	0,395
Branding	**0,688**	0,419
Risk Diversification	0,116	**0,783**

Extraction method: Analysis of Main Component.
Rotation Method: Varimax with Kaiser normalization.
a. Rotation in 3 iterations.

Source: SPSS statistic results

Table 4: Reliability Statistics of Strategic Motivations

	Cronbach α	Number of Items
Strategic Motivations	,768	5
Marketing Motivations	,858	4

Source: SPSS statistic results

According to Oey et al (2018), the systematic preliminary screening method is divided into three stages. First, a list of possible countries is elaborated, performing a macroeconomic analysis, then there is a deeper analysis of the industry and sector of the destination, and lastly there is a company specific analysis considering indicators such as costs, revenues, growth potential, margin analysis. Therefore, in this research and based on literature, the question

regarding the method preliminary screening was divided into three stages and to verify the variables' reliability – meaning that if they should be grouped together or not- , it was performed a confirmatory factor analysis on the stage 1 and 2 that were grouped into two separate variables. The results of the Cronbach's alpha can be found on Table 5. The stage 2 question was already separated in one, so it was not necessary to perform the exploratory factor analysis.

Table 5: Reliability Analysis of Grouped Variables on Preliminary Screening Method.

	Cronbach α	Number of Items
Stage 1: List + Macroeconomics analysis	,899	7
Stage 3: Internal Analysis	,917	4

All of the sub questions of the IMS methods FMOA, MCDM and Mimetism were grouped together in one variable each, more details on the reliability analysis of these three methods can be found in Table 6.

Table 6: Exploratory factor analysis of Grouped Variables on FMOA, MCDM and Mimetism

IMS Method	Cronbach α	Number of Items
FMOA	0,930	6
MCDM	0,960	16
Mimetism	0,912	3

The questions regarding the Geographic Proximity method and specific orders were not grouped because they were already in one question each. The method networks were initially grouped together into one variable, however, the result was not reliable with a Cronbach α of 0,543 (Cronbach α <0,7). Therefore, formal networks were separated and informal networks and customer, supplier, distributor, or other networks were grouped together. This way, the Cronbach α was 0,77, resulting in a reliable variable.

4.3.2 Non-Parametric Tests

As previously mentioned in the methodology section, non-parametric tests were used to analyze the results of this research. Several hypotheses were tested using two non-parametric tests, Mann-Whitnney and Kruskal Wallis. Throughout this section, all hypotheses tested will be described, as well as their results.

4.3.2.1 Indication of Regulated Provenience (IPR)

The first hypothesis tested was to check whether belonging to an Indicated Regulated Provenience (IPR) has any effect on either the motivations to internationalize or the IMS methods chosen. The hypotheses tested are described below:

H_{10}: Being in an IPR region is not related to the International Market Selection method used

H_{11}: Being in an IPR region is related to the International Market Selection Preliminary Screening stage 1

H_{12}: Being in an IPR region is related to the International Market Selection Preliminary Screening stage 2

H_{13}: Being in an IPR region is related to the International Market Selection Preliminary Screening stage 3

H_{14}: Being in an IPR region is related to the International Market Selection FMOA

H_{15}: Being in an IPR region is related to the International Market Selection MCDM

H_{16}: Being in an IPR region is related to the International Market Selection Formal Networks

H_{17}: Being in an IPR region is related to the International Market Selection Informal Networks

H_{18}: Being in an IPR region is related to the International Market Selection Geographic Proximity

H_{19}: Being in an IPR region is related to the International Market Selection Mimetism

H_{110}: Being in an IPR region is related to the International Market Selection Specific Order

H_{111}: Being in an IPR region is related to the International Market Selection order from fairs.

H_{20}: Being in an IPR region is not related to choosing Motivations to Internationalization

H_{21}: Being in an IPR region is related to choosing Strategic Motivations to Internationalization

H_{22}: Being in an IPR region is related to the Marketing Motivations to Internationalization

The Mann-Whitney test was conducted with level of significance $\alpha = 95\%$, however all hypotheses were "not reject the null hypothesis" (all results are described in table 18 in the appendix), so, it is possible to conclude that being from an IPR is not related to the type of motivations chosen nor to the IMS method used. The location of the winery was selected to be tested because it can bring specific competitive advantages on the wine that is produced, thus could affect the wineries revenues, resources and methods selected for IMS. However, the statistical tests of this research indicate that location plays no effect into neither the motivations for internationalization nor any of the IMS methods selected.

4.3.2.2 Dimension of the winery

The next hypothesis was tested to understand the relationship between the dimension of the winery and the motivations for internationalization as well as the methods selected. The hypotheses used in this test were:

H_{30}: The dimension of the winery is not related to the International Market Selection method used

H_{31}: The dimension of the winery is related to the International Market Selection Preliminary Screening stage 1

H_{32}: The dimension of the winery is related to the International Market Selection Preliminary Screening stage 2

H_{33}: The dimension of the winery is related to the International Market Selection Preliminary Screening stage 3

H_{34}: The dimension of the winery is related to the International Market Selection FMOA

H_{35}: The dimension of the winery is related to the International Market Selection MCDM

H_{36}: The dimension of the winery is related to the International Market Selection Formal Networks

H_{37}: The dimension of the winery is related to the International Market Selection Informal Networks

H_{38}: The dimension of the winery is related to the International Market Selection Geographic Proximity

H_{39}: The dimension of the winery is related to the International Market Selection Mimetism

H_{310}: The dimension of the winery is related to the International Market Selection Specific Order

H_{311}: The dimension of the winery is related to the International Market Selection order from fairs

H_{40}: The dimension of the winery is not related to choosing Motivations to Internationalization

H_{41}: The dimension of the winery is related to choosing Strategic Motivations to Internationalization

H_{42}: The dimension of the winery is related to the Marketing Motivations to Internationalization

The Kruskal-Wallis test was performed with degrees of freedom equal to 2 and level of significance $\alpha = 95\%$. In Table 7, the results that rejected the null hypothesis are described and the rest of them, are in the Appendix.

Table 7: Hypothesis testing results for the dimension of the winery

Hypothesis	Test	Sig
H_{33} *Prelimnary Screening Stage* 3	Kruskal-Wallis	0,027
H_{34} *FMOA*	Kruskal-Wallis	0,021
H_{311} *Orders from Fairs*	Kruskal-Wallis	0,007

Source: Hypothesis testing results for Kruskal Wallis test

According to Table 7, there is an effect between the dimension of the winery and the methods described in the hypothesis, respectively, Stage 3 of Preliminary Screening, FMOA and Orders from fairs. Nevertheless, it is important to investigate if there are differences between the three sub-samples which will be further explored with a post hoc test in the tables below.

Table 8: Comparisons performed by the Pairwise Method Stage 3 of Preliminary Screening and Dimension of the winery

Sample 1-Sample 2	Test Statistics	Standard Error	Statistics of the Standard Error	p-value
Microenterprises-Small Enterprises	-8,968	4,764	-1,883	0,060
Microenterprises-Medium Enterprises	-10,766	4,450	-2,419	0,016
Small Enterprises-Medium Enterprises	1,798	5,374	0,335	0,738

Source: Pairwise statistics comparison

According to the p-values in Table 8 there are statistical differences only between the microenterprises and the rest, with a positive relationship with the dimension of the winery meaning that there is a lower tendency that microenterprises will engage in the method of Preliminary Screening stage 3.

Table 9: Comparisons performed by the Pairwise Method FMOA and Dimension of the winery

Sample 1-Sample 2	Test Statistics	Standard Error	Statistics of the Standard Error	p-value
Microenterprises-Small Enterprises	-8,944	4,764	-1,877	0,060
Microenterprises-Medium Enterprises	-11,318	4,451	-2,543	0,011
Small Enterprises-Medium Enterprises	2,374	5,375	0,442	0,659

Source: Pairwise statistics comparison

Similarly with the table described to the results between the Preliminary Screening Stage 3 method, the p-values in Table 9 show that there are statistical differences only between the microenterprises and the rest, with a positive relationship meaning that there is a lower tendency that microenterprises will engage in the method FMOA.

Table 10: Comparisons performed by the Pairwise Method - Specific Order from Fair and Dimension of the winery

Sample 1-Sample 2	Test Statistics	Standard Error	Statistics of the Standard Error	p-value
Microenterprises-Small Enterprises	-8,972	4,326	-2,074	0,038
Microenterprises-Medium Enterprises	-13,548	4,631	-2,926	0,003
Small Enterprises-Medium Enterprises	-4,576	5,224	-0,876	0,381

Source: Pairwise statistics comparison

Similarly, to the analysis performed for the two methods described in tables 9 and 10, the p-values in Table 10 there are statistical differences only between the microenterprises and the rest, with a positive relationship meaning that there is a lower tendency that microenterprises will engage in the method to answer Specific Orders from Fairs. Systematic methods require more tools and resources to be performed as it is a well-structured and organized decision-making process in which several different factor are analyzed (Root, 1998; Andersen & Buvik, 2002; Westhead et al, 2001; Dow 2000; Buckley & Casson, 1998; Koch 2001). Thus, the statistical results of this research indicate that the methods Stage 3 of Preliminary Screening, FMOA and Specific Orders from Fairs are more often used by larger firms that usually have more resources.

4.3.2.3 Success

The definition of success varies a lot across businesses, sectors, countries, and industries. Therefore, it is complex to define a metric that measures success and apply to all wineries involved in this study, disregarding their own specific characteristics, scenarios, and objectives. For that reason, it was included a question in the questionnaire that measures success in each of the wineries' point of view and how they performed based on their scenario. The exact question of the questionnaire was: "To what degree you consider your internationalization process successful?". In this section, non-parametric tests were performed to determine whether success is related to the motivations of internationalization and to the different IMS methods. Hypotheses were tested as described below:

H_{50}: Internationalization's success is not related to the International Market Selection method used

H_{51}: Internationalization's success is related to the International Market Selection Preliminary Screening stage 1

H_{52}: Internationalization's success is related to the International Market Selection Preliminary Screening stage 2

H_{53}: Internationalization's success is related to the International Market Selection Preliminary Screening stage 3

H_{54}: Internationalization's success is related to the International Market Selection FMOA

H_{55}: Internationalization's success is related to the International Market Selection MCDM

H_{56}: Internationalization's success is related to the International Market Selection Formal Networks

H_{57}: Internationalization's success is related to the International Market Selection Informal Networks

H_{58}: Internationalization's success is related to the International Market Selection Geographic Proximity

H_{59}: Internationalization's success is related to the International Market Selection Mimetism

H_{510}: Internationalization's success is related to the International Market Selection Specific Order

H_{511}: Internationalization's success is related to the International Market Selection order from fairs

H_{60}: Internationalization's success is not related to choosing Motivations to Internationalization

H_{61}: Internationalization's success is related to choosing Strategic Motivations to Internationalization

H_{62}: Internationalization's success is related to the Marketing Motivations to Internationalization

The Kruskal-Wallis test was performed with degrees of freedom = 4 and level of significance α = 95%. The most relevant result is presented in Table 11.

Table 11: Hypothesis testing results for the relationship between Success and the IMS method selected

Hypothesis	Test	Sig

H_{58} *Geographic Proximity*	Kruskal-Wallis	0,038

Source: Hypothesis testing results for Kruskal Wallis test

According to Table 11, the only hypothesis that rejected the null hypothesis is H_{58}: Internationalization's success is related to the International Market Selection Geographic Proximity. That means that success is related to the IMS method of Geographic Proximity, however, there must be further analysis on the differences between the sub-samples.

Table 12: Comparisons performed by the Pairwise Method – Geographic Proximity and Success

Sample 1-Sample 2[1]	Test Statistics	Standard Error	Statistics of the Standard Error	p-value
5-2	0,783	7,009	0,112	0,911
5-3	10,867	6,456	1,683	0,092
5-4	14,050	5,788	2,428	0,015
5-1	14,200	12,680	1,120	0,263
2-3	-10,083	6,101	-1,653	0,098
2-4	-13,267	5,388	-2,462	0,014
2-1	13,417	12,503	1,073	0,283
3-4	-3,183	4,646	-0,685	0,493
3-1	3,333	12,201	0,273	0,785
4-1	0,150	11,861	0,013	0,990

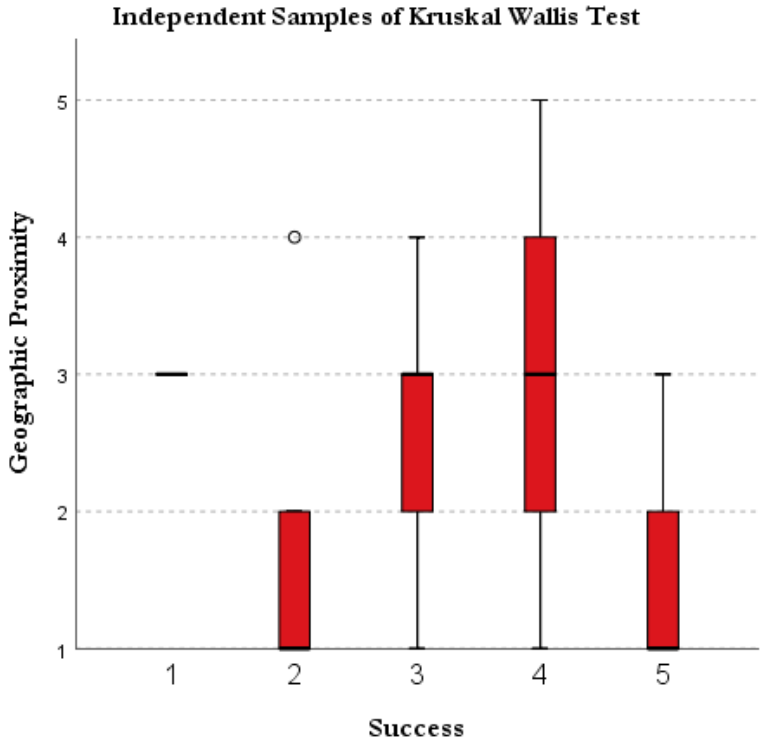
Source: Pairwise statistics comparison

[1] Frequency in which each winery used this method in Likert Scale.

According to Table 12, only the differences between answers 5 and 4, and 2 and 4 are statistically significant. The interpretation for the results of this question is very complex because it only shows statistically significant differences between certain types of answers and the rule does not apply to all.

The dispersity of the answers for this question can be observed in Figure 9, meaning that most of the wineries answered they achieved considerable success (answer number 4) and the other answers had not many results, this can affect the statistical results and maybe that is why this question presents only statistical significances between wineries that answered 2 and 4 and 5 and 4. However, it is important to analyze the results further using Figure 9.

Figure 9: Box of Whikers Chart of the the Independent Samples of the Kruskal-Wallis test between method Geographic Proximity and Success



Source: SPSS

In Figure 9, it is possible to observe that the medians of the distribution of the subsamples for the question Geographic Proximity and Success are shaped in an inverted U. That means that are differences between the respondents that answered 2 and 4 and 4 and 5, showing that the usage of this method is beneficial for the wineries' success, however, always employing this method does not bring exceptional results. This result does not contradict the literature that states that being geographically closer to the market increases the firms' success (Ghemawat, 2011; Anderson, 2011), it only shows that this method has limitations and indicates that using it too much will stop firms from looking at a broader point of view and reach more adequate markets.

4.3.2.4 Success in Objectives

Aside from overall success in internationalization, it is also important to understand if the wineries reached their objectives successfully in the IMS process. Thus, in this section, the answers of the question: "In a scale of 1 to 5, 1 being not achieved at all and 5 completely achieved, to what degree did you achieve your objectives in exports?", regarding success in objectives in internationalization will be tested. Hypotheses are described below:

H_{70}: Internationalization's objectives success is not related to the International Market Selection method used

H_{71}: Internationalization's objectives success is related to the International Market Selection Preliminary Screening stage 1

H_{72}: Internationalization's objectives success is related to the International Market Selection Preliminary Screening stage 2

H_{73}: Internationalization's objectives success is related to the International Market Selection Preliminary Screening stage 3

H_{74}: Internationalization's objectives success is related to the International Market Selection FMOA

H_{75}: Internationalization's objectives success is related to the International Market Selection MCDM

H_{76}: Internationalization's objectives success is related to the International Market Selection Formal Networks

H_{77}: Internationalization's objectives success is related to the International Market Selection Informal Networks

H_{78}: Internationalization's objectives success is related to the International Market Selection Geographic Proximity

H_{79}: Internationalization's objectives success is related to the International Market Selection Mimetism

H_{710}: Internationalization's objectives success is related to the International Market Selection Specific Order

H_{711}: Internationalization's objectives success is related to the International Market Selection order from fairs

H_{80}: Internationalization's objectives success is not related to choosing Motivations to Internationalization

H_{81}: Internationalization's objectives success is related to choosing Strategic Motivations to Internationalization

H_{82}: Internationalization's objectives success is related to the Marketing Motivations to Internationalization

It was performed Kruskal-Wallis tests with degrees of freedom = 3 and level of significance α = 95%. The most relevant results are presented in Table 13 and Table 14.

Table 13: Hypothesis testing results for the relationship between Success in Objectives and the IMS method selected

Hypothesis	Test	Sig
H_{72} *Preliminary Screening Stage 2*	Kruskal-Wallis	0,042
H_{78} *Geographic Proximity*	Kruskal-Wallis	0,011

Source: Hypothesis testing results for Kruskal Wallis test

As can be observed in Table 13, H_{72} and H_{78} reject the null hypothesis. This means that success in the wineries objectives are related to the stage 2 of Preliminary Screening and the Geographic Proximity Method. In Table 14, the relationship is further investigated.

Table 14: Comparisons performed by the Pairwise Method - Stage 2 Preliminary Screening and success in the wineries' objectives.

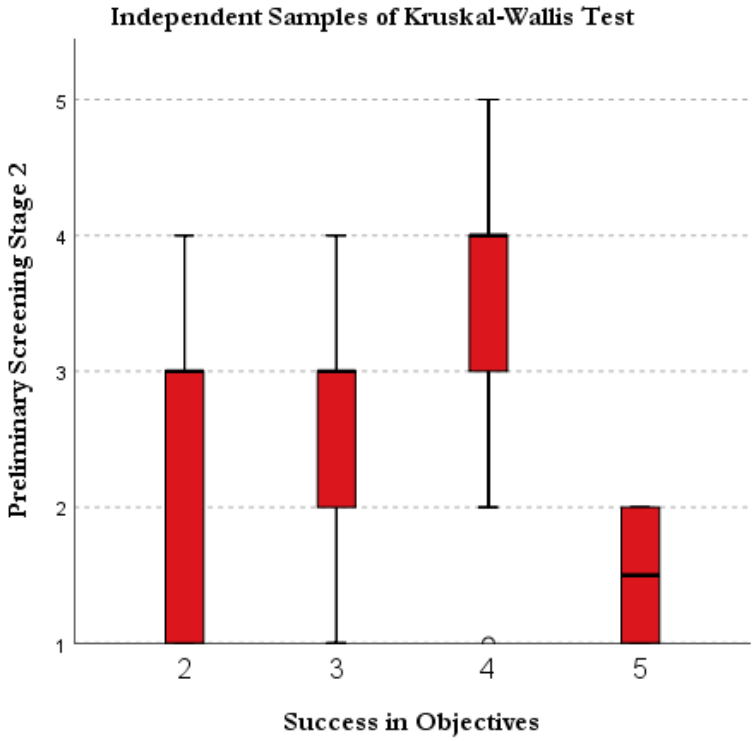
Sample 1-Sample 2[1]	Test Statistics	Standard Error	Statistics of the Standard Error	p-value
5-2	9,750	9,485	1,028	0,304
5-3	11,173	8,823	1,266	0,205
5-4	19,025	8,615	2,208	0,027
2-3	-1,423	5,733	-0,248	0,804
2-4	-9,275	5,407	-1,715	0,086
3-4	-7,852	4,138	-1,897	0,058

Source: Pairwise statistics comparison

[1] Frequency in which each winery used this method in Likert Scale.

According to Table 14, only the differences between answers 5 and 4 are statistically significant. There is a positive tendency between the wineries that answered 5, indicating that the wineries that achieved their objectives more successfully are the ones that used this method more frequently. Analyzing the results, it is not possible to obtain a conclusive result, due to the fact that only the differences between the subsamples 5-4 are statistically significant, so it is interesting to analyze the box of whiskers chart of the subsamples results:

Figure 10: Box of Whikers Chart of the Independent Samples of the Kruskal-Wallis test between method Preliminary Screening Stage 2 and Success in Objectives



Source: SPSS

The dispersion of the medians of the answers for using the method Preliminary Screening Stage 2 are in an inverted U shape. This means that apparently using the method of performing an analysis of the industry and sector in the country of destination can only bring benefits to a certain level. The usage of the method increases success, but do not bring exceptional results. This reinforces the existing literature that market knowledge is an essential step of IMS, as stated by several studies (Johanson & Vahlne, 1977; Eriksson et al, 1997; Buckley & Casson, 1998; Johanson & Vahlne, 2003; Rahman 2003; Dow 2000;

Westhead et al, 2001; Carneiro et al, 2008; Martín et al, 2021). However, it is important to note that the extensive usage of this method will not bring exceptional results.

Table 15: Comparisons performed by the Pairwise Method – Geographic Proximity and success in the wineries' objectives.

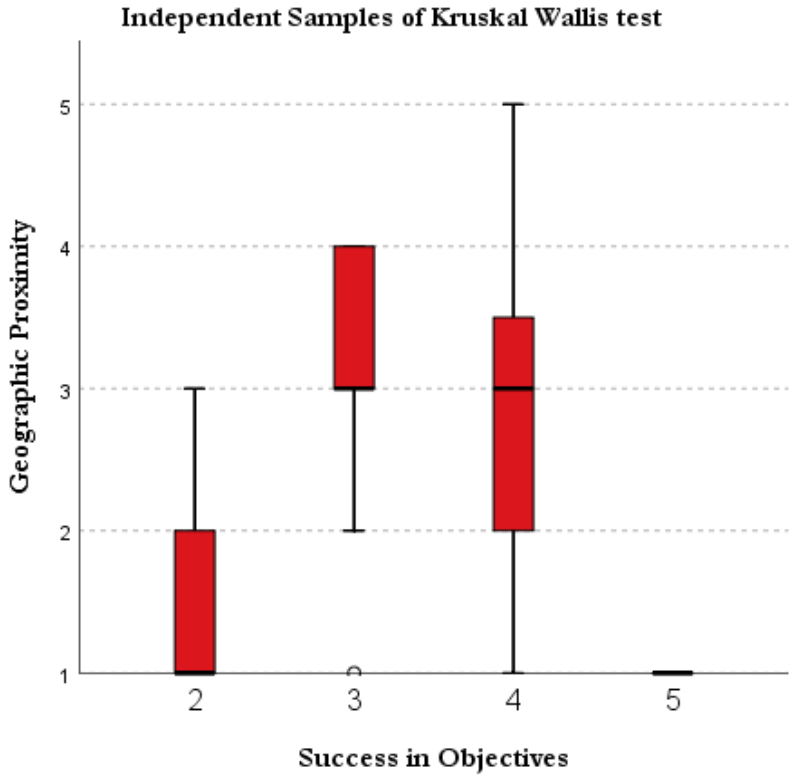
Sample 1-Sample 2[1]	Test Statistics	Standard Error	Statistics of the Standard Error	p-value
5-2	4,833	9,451	0,511	0,609
5-4	17,325	8,584	2,018	0,044
5-3	20,000	8,792	2,275	0,023
2-4	-12,492	5,388	-2,318	0,020
2-3	-15,167	5,713	-2,655	0,008
4-3	2,675	4,124	-0,649	0,517

Source: Pairwise statistics comparison

[1] Frequency in which each winery used this method in Likert Scale.

According to Table 15, the differences between answers 5 and 4, 5 and 3, 2 and 4, and 2 and 3 are statistically significant.

Figure 11: Box of Whikers Chart of the Independent Samples of the Kruskal-Wallis test between method Geographic Proximity and Success in Objectives



Source: SPSS

Similarly to the interpretations of Figures 9 and 10, the shape of the medians of the independent subsamples of Kruskal-Wallis test show an inverted U. That means that apparently the usage of this method brings benefits to a certain level. As mentioned in the previous section, the results do not contradict the existing literature (Ghemawt, 2011; Anderson, 2011), it demonstrates an interesting factor that extensive usage of this method could limit the winery's possibility to explore other more adequate markets.

Like the results for testing the hypothesis of the relationship between the method selected and success, the statistical results are not definitive. Either way, the outcome indicates that the method Preliminary Screening Stage 2 and Geographic Proximity improve the wineries' success, however, further investigation is necessary in order to obtain more conclusive results.

4.3.2.4 Non-parametric tests conclusion

After the hypothesis testing, overall, the test results present three main interesting conclusions, as described below:

1. Regarding the dimension of the wineries, three methods that rejected the null hypothesis, namely stage 3 of Preliminary Screening, FMOA and Order from Fair, which means that microenterprises have a lower tendency in using these methods.
2. Regarding success, only the method with geographic proximity rejected the null hypothesis and indicated a positive relationship between using this method and achieving success to a certain level. The statistical results also showed that the method should not have an extensive use, where it begins to affect the wineries' success.
3. In achieving success in the wineries objectives, two methods rejected the null hypothesis, namely the stage 2 of Preliminary Screening and the Geographic Proximity method. The outcomes indicate that these two methods influence positively reaching the firms' objectives in internationalization, however, they both show limitations to their usage.

5. Conclusion

Portugal is one of the most traditional wine regions in the world, being known for its diversity and uniqueness and special production processes. A few regions in Portugal produce unique types, such as Vinho Verde and the origin of the grapes and production process of some other types produce world-known and very distinctive Port Wines. Portuguese wines are very rich in flavor, in history and in impact to the country and together with wine appreciation, them all became the main motivations of this study.

Besides contributing for the literature of internationalization of wine in Portugal, the main goals of this research were to understand how the IMS takes place in the wineries of the country and which methods are the ones that mostly influences the wineries' success in internationalization. To do that, it was developed two research questions as follows:

RQ 1: Do firms' characteristics influence the International Market Selection in the Portuguese wine sector?

RQ 2: Which approach influences internationalization's success?

Referring to RQ1, it was tested two separate hypotheses: first verifying the presence of the winery in an IPR and the second the size of the firm. Although belonging to an IPR can bring benefits in terms of the origin, quality and characteristics of the wine, it did not present any statistically significant results. That means that belonging to an IPR does not influence the motivations the wineries may have to start internationalizing neither any of the methods it may choose for IMS.

On the other hand, the second hypothesis presented interesting results. The methods Preliminary Screening Stage 3 (List of internal factors of the wineries to evaluate the country of destination), FMOA and to answer Specific Order from fairs were statistically significant to the wineries size. Furthermore, a Pairwise comparison was performed to understand the tendency the size of the wineries can have when using the IMS methods. In all three methods, there was observed that microenterprises have a negative tendency to use them. The results follow the literature that indicates that smaller firms have less resources and information to engage in these processes (Karagozoglu and Lindell, 1998; Child et al, 2022).

To address RQ2, other two hypothesis were tested, which are: the relationship between the frequency of the method used and if the wineries were successful, and to what

degree the wineries reached their objectives and the methods they most frequently used. Regarding the wineries' overall success, the only method that presented a statistically significant effect was geographic proximity. The Pairwise method comparisons showed interesting results, with significances only between the wineries that always use the method and those that almost always use it and between those that almost always use it and rarely use it. The results indicate that success has a positive relationship with using the method, however with limitations. The method is only effective in increasing the wineries' success if it is not employed all IMS opportunities. The results confirm the literature that has already pointed this out before with Johanson and Vahlne (1977), Ghemawat (2011) and Anderson (2011), all of whom state the importance of geographic distance in international trade and contradicts several studies in the field that do not pose geographic distance as a major player. Nevertheless, the extensive use of the method is not beneficial for the wine sector because it can limit the markets in which the wineries can evaluate and enter.

Similarly, to the success hypothesis, the success in objectives hypothesis had statistically significant results and positive tendency for geographic proximity as well, but it also presented statistically significant results for the method Preliminary Screening Stage 2 (that involves a thorough analysis of the industry and sector in the country of destination). However, as was noted for the success hypothesis, the same occurs with the subsamples in the success in objectives hypothesis. Increased use of the method does bring success to the wineries, but to a certain extent. This could have happened because of the dispersity of the sample, but a further investigation on this matter would be very important to reach a more conclusive result. The outcomes, though, only indicate that those methods have a positive influence in reaching the wineries' objectives in internationalization. The literature, however, is aligned with that result stating that having market knowledge of the country of destination is an essential step for obtaining success in internationalization as is pointed out in several studies in the International Business field (Johanson & Vahlne, 1977; Eriksson et al, 1997; Buckley & Casson, 1998; Johanson & Vahlne, 2003; Rahman 2003; Dow 2000; Westhead et al, 2001; Carneiro et al, 2008; Martín et al, 2021). In practice, this research shows that those two methods lead to success, however, should not be always used when going through IMS.

The most commonly used methods by the wineries in that sample were Networks, MCDM, and responding to specific orders. These, however, did not show any statistically significant results in and effect in their success. This could have happened because of the

concentration of the answers in a small sample. Even though they were the most used approaches, they were not significant statistically. As in a future IMS process, two main IMS methods were mentioned: networks and MCDM. The answers are in line with literature explored in this dissertation in the wine sector (Franco & Martins, 2020; Drochtert, 2022) and in the IMS field (Baena-Rojas et al, 2022; Vanegas-Lopez et al, 2020; Oey et al, 2018).

The main limitation of this research is the size of the sample. For future research venues, it would be very important to obtain a bigger sample and to investigate the relationship of success and success in objectives with IMS method. In addition, it would be interesting to have bigger companies in the research to differentiate the process between SME's and MNE's. Also, since most wineries answered that they perform MCDM, there should further investigation on how the process takes place and a detailed analysis of main factors to analyze. An empirical case study on which is the best countries to export wines from Portugal would enrich the knowledge and literature to contribute positively to Portuguese wineries' experience in internationalization and maybe even assist them in selecting a successful market.

Finally, although the results are not conclusive, this research could indicate two methods that have a positive influence in success in internationalization. It also showed that no exclusive method should be considered when performing an IMS process, the wineries that achieved most success were the ones that used a combination of methods considering their own scenario and goals.

6. References

Agrogarante (2021). *Análise Setorial Subsetor – Vinha e Vinho*. Agrogarante - Sociedade de Garantia Mútua. https://www.agrogarante.pt/fotos/noticias/analise_setorial_vinha_vf_1740556994615d6f99893a8.pdf

Ahi, A., Kuivalainen, O., & Bahreinian, M. (2019). A systematic approach to international market selection: measuring the attractiveness of emerging economies in the case of the timber industry. *International Journal of Export Marketing*, 3(2), 105. https://doi.org/10.1504/ijexportm.2019.104396

Andersen, O., & Buvik, A. (2002). Firms' internationalization and alternative approaches to the international customer/market selection. *International Business Review*, 11(3), 347–363. https://doi.org/10.1016/s0969-5931(01)00064-6

Anderson, J. E. (2011). The Gravity Model. *Annual Review of Economics*, 3(1), 133–160. https://doi.org/10.1146/annurev-economics-111809-125114

Andrews, B. (2022). *6 Wine Industry Trends to Watch in 2023*. SevenFifty Daily. https://daily.sevenfifty.com/6-wine-industry-trends-to-watch-in-2023/

Arena Flowers (2022). *The History of Wine | Flowers, wine and gifts.* Arena Flowers. https://www.arenaflowers.com/pages/history-of-wine/

Baena-Rojas, J. J., Rojas, J. A., & Campo, E. A. (2018). Metodología para la Selección de Mercados Internacionales: Un Análisis de Caso para la Exportación de Bebidas Carbonatadas. Dirección Y Organización. https://doi.org/10.37610/dyo.v0i66.532

Baena-Rojas, J. J., López-Cadavid, D. A., Mackenzie-Torres, T. M., & Muñoz-Parra, C. L. (2022). Hybrid multicriteria technique for international markets selection based on the analytic hierarchy process. RAM. *Revista De Administração Mackenzie*, 23(2). https://doi.org/10.1590/1678-6971/eramr220038.en

Bamberry, G., & Wickramasekara, R. (2012). Domestic and international strategies in the Queensland wine industry. *International Journal of Wine Business Research*, 24(4), 302–318. https://doi.org/10.1108/17511061211280347

Batschauer da Cruz, C. B. B., Floriani, D. E., & Amal, M. (2020). The OLI Paradigm as a comprehensive model of FDI determinants: a sub-national approach. *International Journal of Emerging Markets*, 17(1), 145–176. https://doi.org/10.1108/ijoem-07-2019-0517

Bazerman, M. H. (1986). *Judgment in managerial decision making*. John Wiley & Sons.

Behmiri, N. B., Rebelo, J., Gouveia, S., & António, P. (2019). Firm characteristics and export performance in Portuguese wine firms. *International Journal of Wine Business Research*, 31(3), 419–440. https://doi.org/10.1108/ijwbr-07-2018-0032

Bentes, P. (2022, July 20). *Pequenos produtores de vinho à beira da falência*. TSF Rádio Notícias. https://www.tsf.pt/portugal/economia/pequenos-produtores-de-vinho-a-beira-da-falencia-15034700.html

Bertram, D. (2006) *Likert Scales: CPSC 681—Topic Report*. Poincare, 1-11.

http://poincare.matf.bg.ac.rs/~kristina/topic-dane-likert.pdf

Bikhchandani, S., Hirshleifer, D., & Welch, I. (1998). Learning from the behavior of others: Conformity, fads, and informational cascades. *The Journal of Economic Perspectives*, 151–170.

Brewer, P. (2001). International market selection: developing a model from Australian case studies. *International Business Review*, 10(2), 155–174. https://doi.org/10.1016/s0969-5931(00)00049-4

Brouthers, L. E. & Nakos, G. (2005). The role of systematic international market selection on small firms' export performance. *Journal of Small Business Management*, 43(4), 363–381. https://doi.org/10.1111/j.1540-627x.2005.00142.x

Buckley, P. J., & Casson, M. (1998). Analyzing Foreign Market Entry Strategies: Extending the internalization approach. *Journal of International Business Studies*, 29(3), 539–561. https://doi.org/10.1057/palgrave.jibs.8490006

Buckley, P. J., & Casson, M. (2019). Decision-making in international business. *Journal of International Business Studies*, 50(8), 1424–1439. https://doi.org/10.1057/s41267-019-00244-6

Bureau van Dijk (2023). Private company information – Orbis. (n.d.). Bvd. https://www.bvdinfo.com/en-gb/

Carneiro, J., Da Rocha, A., & Da Silva, J. F. (2008). Challenging the uppsala internationalization model: a contingent approach to the internationalization of services. *Brazilian Administration Review,* 5(2), 85–103. https://doi.org/10.1590/s1807-76922008000200002

Castillo, J. S., Villanueva, E. C., & García-Cortijo, M. C. (2016). The International wine trade and its new export Dynamics (1988-2012): A gravity model approach. *Agribusiness*, 32(4), 466–481. https://doi.org/10.1002/agr.21463

Cavusgil, S. T. (1997). Measuring the potential of emerging markets: An indexing approach. *Business Horizons*, 40(1), 87–91. https://doi.org/10.1016/s0007-6813(97)90030-6

Child, J., Karmowska, J., & Shenkar, O. (2022, January). The role of context in SME internationalization – A review. *Journal of World Business*, 57(1), 101267. https://doi.org/10.1016/j.jwb.2021.101267

Correia, M. D. R., & Meneses, R. (2021). From systematic to mimetic behavior in the international market selection. *Advances in business strategy and competitive advantage book series*. https://doi.org/10.4018/978-1-7998-1843-4.ch008

Dal Bianco, A., Boatto, V. L., Caracciolo, F., and Santeramo, F. G. (2016). Tariffs and non tariff frictions in the world wine trade. *European Review of Agricultural Economics*, 43(1),

31–57

Dascal, D., Mattas, K., & Tzouvelekas, V. (2002). An analysis of EU wine trade: A gravity model approach. *International Advances in Economic Research*, 8(2), 135–147. https://doi.org/10.1007/bf02295344

Di Maria, E., & Ganau, R. (2016). SMEs' growth in international markets: export intensity, export diversification and distribution strategies. *Economia e Politica Industriale,* 44(3), 345–369. https://doi.org/10.1007/s40812-016-0061-6

Dow, D. (2000). A note on psychological distance and export market selection. *Journal of International Marketing*, 8(1), 51–64. https://doi.org/10.1509/jimk.8.1.51.19563

Drochtert, C. (2022). The internationalization process of German and Portuguese small-and medium sized wineries and their determinants of success. [Master's Dissertation]. Católica Business School – Lisbon.

Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies,* 11(1), 9–31. https://doi.org/10.1057/palgrave.jibs.8490593

Dunning, J.H. (2000) The Eclectic Paradigm as an Envelope for Economic and Business Theories of MNE Activity. *International Business Review*, 9, 163-190. http://dx.doi.org/10.1016/S0969-5931(99)00035-9

Eriksson, K., Johanson, J., Majkgård, A., & Sharma, D. D. (1997). Experiential knowledge and costs in the internationalization process. *Journal of International Business Studies*, 28(2), 337–360. https://doi.org/10.1057/palgrave.jibs.8490104

Franco, M., & Martins, R. C. (2020). The role of networks in the internationalization process of small- and medium-sized enterprises in the wine-producing sector. *Global Business Review*. https://doi.org/10.1177/0972150920927373

Ghemawat, P. (2011). *The Cosmopolitan Corporation*. Harvard Business Review. https://hbr.org/2011/05/the-cosmopolitan-corporation

Górecka, D. & Szalucka, M. (2013). Country market selection in international expansion using multicriteria decision aiding methods. *Multiple Criteria Decision Making*. 8. 31-55.

Government of Portugal, (2020). *Sucesso do setor vitivinícola contribui para crescimento nacional*. Governo de Portugal. https://www.portugal.gov.pt/pt/gc22/comunicacao/noticia?i=sucesso-do-setor-vitivinicola-contribui-para-crescimento-nacional

Harrigan, P., Ramsey, E., & Ibbotson, P. (2012). Entrepreneurial marketing in SMEs: the key capabilities of e-CRM. *Journal of Research in Marketing and Entrepreneurship*, 14(1), 40–64. https://doi.org/10.1108/14715201211246760

Hymer, S. (1960) The International Operations of National Firms: A Study of Direct Foreign Investment. *The MIT Press*, Cambridge.

Ibarra, H. (1993). Personal Networks of Women and Minorities in Management: A Conceptual framework. *Academy of Management Review*, 18(1), 56. https://doi.org/10.2307/258823

IBM. (2021). *Statistics - parametric and nonparametric*. IBM Documentation. https://www.ibm.com/docs/en/db2woc?topic=procedures-statistics-parametric-nonparametric

INE (2023). *O que se considera uma PME (micro, pequena e média empresa)?*. Portal do INE. https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_faqs&FAQSfaq_boui=64092016&FAQSmodo=1&xlang=pt

Infovini (2023). *O portal do vinho português | Designações Oficiais*. Infovini. http://www.infovini.com/classic/pagina.php?codPagina=2

Johanson, J., & Mattsson, L. (1988). Interorganizational relations in industrial systems – A network approach compared with the transaction cost approach. *In Palgrave Macmillan*. https://doi.org/10.1057/9781137508829.0011

Johanson, J., & Vahlne, J. (1977). The internationalization Process of the Firm—A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23–32. https://doi.org/10.1057/palgrave.jibs.8490676

Johanson, J., & Vahlne, J. (1990). The mechanism of internationalisation. *International Marketing Review*, 7(4). https://doi.org/10.1108/02651339010137414

Johanson, J., & Vahlne, J. (2003). Business Relationship Learning and Commitment in the Internationalization Process. *Journal of International Entrepreneurship*, 1(1), 83–101. https://doi.org/10.1023/a:1023219207042

Johanson, J., & Vahlne, J. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9), 1411–1431. https://doi.org/10.1057/jibs.2009.24

Kahiya, E. T., & Dean, D. L. (2015, July 22). Export Stages and Export Barriers: Revisiting Traditional Export Development. *Thunderbird International Business Review*, 58(1), 75–89. https://doi.org/10.1002/tie.21741

Karagozoglu, N. and Lindell, M. (1998) Internationalization of Small and Medium-Sized Technology-Based Firms: An Exploratory Study. *Journal of Small Business Management*, 36, 44-59.

Karelakis, C., Mattas, K., & Chryssochoidis, G. (2008). Export problems perceptions and clustering of Greek wine firms. *Euromed Journal of Business*, 3(1), 6–22. https://doi.org/10.1108/14502190810873795

Knickerbocker, F. T. (1973). Oligopolistic reaction and multinational enterprise. *The International Executive,* 15(2), 7–9. https://doi.org/10.1002/tie.5060150205

Koch, A.J. (2001) 'Selecting overseas markets and entry modes: two decision processes or one?', *Marketing Intelligence and Planning*, Vol. 19, No. 1, pp.65–75. https://doi.org/10.1108/02634500110366120

Kolmar, C. (2023). *The 10 Largest Wine Companies In The World*. Zippia. https://www.zippia.com/advice/largest-wine-companies/

Kolmogorov–Smirnov Test (2008). In: The Concise Encyclopedia of Statistics. *Springer*, New York, NY. https://doi.org/10.1007/978-0-387-32833-1_214

Kubíčková, L., Votoupalová, M., & Toulová, M. (2014). Key motives for Internationalization Process of Small and Medium–Sized Enterprises. *Enterprise and the Competitive Environment 2014 conference*, ECE 2014, 6–7 March 2014, Brno, Czech Republic. Procedia. Economics and Finance, 12, 319–328. https://doi.org/10.1016/s2212-5671(14)00351-7

Kumar, V., Stam, A., & Joachimsthaler, E. A. (1994). An interactive multicriteria approach to identifying potential foreign markets. *Journal of International Marketing*, 2(1), 29–52. https://doi.org/10.1177/1069031x9400200103

Lourenço, Mário. (2017). *Caraterização do setor do vinho em Portugal*. Bank of Portugal. https://www.bportugal.pt/sites/default/files/caraterizacao_do_setor_do_vinho_em_portugal_final.pdf

Macedo, A., Gouveia, S., & Rebelo, J. (2019). Horizontal Differentiation and Determinants of Wine Exports: Evidence from Portugal. Journal of Wine Economics, 15(2), 163–180. https://doi.org/10.1017/jwe.2019.31

Marchi, G., Vignola, M., Facchinetti, G., & Mastroleo, G. (2014). International market selection for small firms: a fuzzy-based decision process. *European Journal of Marketing*, 48(11/12), 2198–2212. https://doi.org/10.1108/ejm-09-2012-0512

Martín, O. M., Chetty, S., & Bai, W. (2022). Foreign market entry knowledge and international performance: The mediating role of international market selection and network capability. *Journal of World Business*, 57(2), 101266. https://doi.org/10.1016/j.jwb.2021.101266

Maurel, C. (2009). Determinants of export performance in French wine SMEs. *International Journal of Wine Business Research*, 21(2), 118–142. https://doi.org/10.1108/17511060910967971

Mehta, R., & Bhanja, N. (2017). Consumer preferences for wine attributes in an emerging market. *International Journal of Retail & Distribution Management*, 46(1), 34–48. https://doi.org/10.1108/ijrdm-04-2017-0073

Musso, F., & Francioni, B. (2012). How do smaller firms select foreign markets? *International Journal of Marketing Studies*, 4(6). https://doi.org/10.5539/ijms.v4n6p44

Nachar, N. (2008). The Mann-Whitney U: A Test for Assessing Whether Two Independent Samples Come from the Same Distribution. *Tutorials in Quantitative Methods for Psychology*, 4(1), 13–20. https://doi.org/10.20982/tqmp.04.1.p013

OEC (2023). *Where does export to? (2000-2021)*. OEC - the Observatory of Economic Complexity. https://oec.world/en/visualize/stacked/hs92/export/prt/show/42204/2000.2021/

Oey, E., Noviyanti, N., & Lim, S. (2018). Evaluating international market selection with multi-criteria decision making tools - a case study of a metal company in Indonesia. *International Journal of Business Excellence*, 16(3), 341. https://doi.org/10.1504/ijbex.2018.095645

Olmos, M. F. (2011). The Determinants of Internationalization: Evidence from the Wine Industry. *Applied Economic Perspectives and Policy*, 33, 384-401. https://doi.org/10.1093/aepp/ppr017

Ozturk, A., Joiner, E., & Cavusgil, S. T. (2015). Delineating Foreign Market Potential: a tool for international market selection. *Thunderbird International Business Review*, 57(2), 119–141. https://doi.org/10.1002/tie.21686

Papadopoulos, N., & Denis, J. (1988). INVENTORY, TAXONOMY AND ASSESSMENT OF METHODS FOR INTERNATIONAL MARKET SELECTION. *International Marketing Review*, 5(3), 38–51. https://doi.org/10.1108/eb008357

Papadopoulos, N., & Martín, O. M. (2011). International market selection and segmentation: perspectives and challenges. *International Marketing Review*, 28(2), 132–149. https://doi.org/10.1108/02651331111122632

Patani, C. (2023). *The Wines of Portugal: An Introduction to Portuguese Wine - Now in Portugal*. Now in Portugal. https://nowinportugal.com/the-wines-of-portugal/

Rahman, S. H. (2003). Modelling of international market selection process: a qualitative study of successful Australian international businesses. *Qualitative Market Research: An International Journal,* 6(2), 119–132. https://doi.org/10.1108/13522750310470127

Root, F. R. (1998). *Entry Strategies for International Markets*. Jossey-Bass.

Saunders, M.N.K., Lewis, P. and Thornhill, A. (2019) *Research Methods for Business Students*. 8th Edition, Pearson, New York.

Schweizer, R., Vahlne, J., & Johanson, J. (2010). Internationalization as an entrepreneurial process. *Journal of International Entrepreneurship*, 8(4), 343–370. https://doi.org/10.1007/s10843-010-0064-8

Sheskin, D. J. (2020). *Handbook of Parametric and Nonparametric Statistical Procedures*. In Chapman and Hall. https://doi.org/10.1201/9780429186196

Springer (2008). *Kruskal-Wallis Test*. In Springer eBooks (pp. 288–290). https://doi.org/10.1007/978-0-387-32833-1_216

Statista (2023). Wine - Portugal | Statista market forecast. https://www.statista.com/outlook/cmo/alcoholic-drinks/wine/portugal

Statista. (2023). *Wine - Worldwide | Statista market forecast*. https://www.statista.com/outlook/cmo/alcoholic-drinks/wine/worldwide

TrendEconomy (2023). *Portugal | Imports and Exports | World | Wine of fresh grapes, fortified wines, grape must other than that of heading 2009 | Value (US$) and Value Growth, YoY (%) | 2011 - 2022*. https://trendeconomy.com/data/h2/Portugal/2204

Vahlne, J. (2020). Development of the Uppsala model of internationalization process: From internationalization to evolution. *Global Strategy Journal*, 10(2), 239–250. https://doi.org/10.1002/gsj.1375

Van Hoorn, T. (1979). Strategic planning in small and medium-sized companies. *Long Range Planning*. https://doi.org/10.1016/0024-6301(79)90076-1

Vanegas-López, J. G., Rojas, J. J. B., López-Cadavid, D. A., & Mathew, M. (2020). International market selection: an application of hybrid multi-criteria decision-making technique in the textile sector. *Review of International Business and Strategy*, 31(1), 127–150. https://doi.org/10.1108/ribs-07-2020-0088

Vernon, R. (1966). International investment and international trade in the product cycle. *Quarterly Journal of Economics*, 80(2), 190. https://doi.org/10.2307/1880689

ViniPortugal (2023). A world of difference. ViniPortugal. https://www.viniportugal.pt/pt/

ViniPortugal (2023). *Estatísticas*. Viniportugal. https://www.viniportugal.pt/pt/o-sector/estatisticas/

ViniPortugal (2021). Indústria do Vinho - Viniportugal.

Vinovest (2023). *15 Emerging Wine Regions That Wine Investors Should Consider*. Vinovest. https://www.vinovest.co/blog/emerging-wine-regions

Vivas, C.; de Sousa, A. (2012). Estratégias de Internacionalização: Contexto, Actuação e Performance das Empresas de Vinhos Portuguesas. *XXII Jornadas Luso-Espanholas De Gestão Científica*. Vila Real, February, 2012.

Westhead, P., Wright, M., Ucbasaran, D., & Martin, F. (2001). International market selection strategies of manufacturing and services firms. *Entrepreneurship and Regional Development*. https://doi.org/10.1080/08985620175004679 3

Wine in Moderation. (2023). *Culture of wine*. Wine in Moderation. https://www.wineinmoderation.eu/pt/Cultura#:~:text=Wine%20has%20evolved%20as%20part,complement%20to%20food%20and%20conviviality.

Wines of Portugal (2023). *História*. Wines of Portugal. https://www.winesofportugal.com/pt/descobrir/historia/

Wine Tourism in Portugal. (2022). *10 Health Benefits of Wine, According to Science*. Wine Tourism in Portugal. https://blog.winetourismportugal.com/10-health-benefits-of-wine-according-to-science

Zain, M., & Ng, S. I. (2006). The impacts of network relationships on SMEs' internationalization process. *Thunderbird International Business Review*, 48(2), 183–205. https://doi.org/10.1002/tie.20092

7. Appendix

Figure 7: Extraction Information from SABI

Product name	SABI Informa
Update number	283
Software version	135.00
Data update	22/03/2023 (nº 2833)
Username	FEP-bgrn1s6
Export date	23/03/2023

	Resultado do passo	Resultado da pesquisa
1. CAE Rev. 3 (Primary codes only): 1102 - Indústria do vinho	1.175	1.175
2. Tipo de entidades: Empresas	806.487	1.175
3. País/Região: Portugal	806.487	1.175
4. Estado (Portugal): Ativa	406.630	831
5. Todas as empresas com endereço e-mail (Portugal)	300.427	595
Pesquisa Booleana : 1 E 2 E 3 E 4 E 5		
	Total	595

Source: SABI

Table 16: Questionnaire guidance

Question	Purpose	Type of Question	Literature
1)Is your role at the winery related to the decision-making process of internationalization?	To ensure that the respondent is the adequate person to answer the questionnaire.	Multiple Choice Question	Saunders et al (2019)
2) Does the winery belong to any demarcated region of wine (Denomination of Controlled Origin – DOC)? If so, which one (s)?	To understand the winery's characteristics.	Open-ended Question	Saunders et al (2019)
3) Does the winery belong to any Indication of Regulated Provenience (IPR)? If so, which one (s)?	To understand the winery's characteristics.	Open-ended Question	Saunders et al (2019)
4) Do the produced wines have any denomination of origin (VQPRD,	To understand the winery's characteristics.	Open-ended Question	Saunders et al (2019)

VLQPRD, VEQPRD, VFPQRD)?			
5) Quantity of employees	To understand the winery's size.	Multiple-Choice Question	Instituto Nacional de Estatística - INE (2023)
6) Average anual business volume	To understand the winery's size.	Multiple-Choice Question	Instituto Nacional de Estatística – INE (2023)
7) Production Capacity (in hectoliters)	To understand the winery's size.	Open-ended Question	Saunders et al (2019)
8) Types of wine produced	To understand the winery's characteristics.	Open-ended Question	Saunders et al (2019)
9) Does the winery sell to markets abroad?	To confirm whether the winery already exports.	Multiple-Choice Question	Saunders et al (2019)
10) Why does the winery not sell abroad?	To understand the main challenges that come up in the internationalization process	(Conditional to No in the previous question) Multiple-Choice Question	Saunders et al (2019)
11) Degree of the importance of Internationalization	To measure the degree of importance of internationalization	Likert Scale Question (1-5)	Saunders et al (2019)
12) How important it is to select an adequate international market?	To comprehend the importance of the research.	Likert Scale Question (1-5)	Saunders et al (2019)
13) Annual percentage of the production that is exported (approximated)	To understand key factors of the sample's characteristics	Open-ended Question	Saunders et al (2019)
14) Percentage of annual revenue obtained from exports (approximated)	To understand key factors of the sample's characteristics	Open-ended Question	Saunders et al (2019)
15) International markets already operating in	To understand key factors of the sample's characteristics	Open-Ended Question	Saunders et al (2019)

16) Rate the main Motivations for exports described below[1]	To understand key factors of the sample's characteristics	Multiple Likert Scale Questions (1-5)	
17) Followed pre-defined steps to select international markets, considering:[1]	Method Preliminary Screening	Multiple Likert Scale Questions (1-5)	Koch (2001); Kumar et al (1994); Root (1998); Oey (2018)
18) Performed an analysis of market opportunity, considering:[1]	Method FMOA	Multiple Likert Scale Questions (1-5)	Ozturk et al (2015)
19) Analyzed criteria below with weights based on importance:[1]	Method MCDM	Multiple Likert Scale Questions (1-5)	Ahi et al (2019), Vanesgas-López (2020), Baena-Rojas et al (2018), Baena-Rojas (2022)
20) Made internationalization decisions based on:[1]	Method Networks	Multiple Likert Scale Questions (1-5)	Andersen & Buvik (2002); Johanson and Mattsson (1988); Franco & Martins (2020)
21) Selected a market based on its geographic proximity.	Method Geographic proximity	Multiple Likert Scale Questions (1-5)	Johanson and Vahlne (1977); Ghemawat (2011), Anderson (2011)
22) Selected a market based on: Mimetism	Method Mimetism	Multiple Likert Scale Questions (1-5)	Correia & Meneses (2021)
23) Sold to a market abroad to respond to a specific order.	Method Specific Orders	Multiple Likert Scale Questions (1-5)	Andersen & Buvik (2002)
24) Selected a market abroad based on specific order obtained at a fair.	Method Orders from Fairs	Multiple Likert Scale Questions (1-5)	Andersen & Buvik (2002)
25) Describe how you usually select international	To obtain more descriptive information on the wineries'	Open-ended Question	N/A

markets (describing the specific selection methods)	internationalization process		
26) On a new experience, how would you select international markets?	To obtain information on what is the most adequate method for the specific winery	Open-ended Question	N/A
27) How successful were you in the international market selection process?	Success measure	Likert Scale Question (1-5)	N/A
28) Why do you think you were or were not successful?	To obtain more descriptive information on why the wineries' did not obtain success and what was the IMS method role in it	Open-ended Question	N/A
29) Did you reach your goals in the international market selection process?	Success in the wineries' objectives measures	Likert Scale Question (1-5)	N/A
30) What are the main challenges in the process of selecting International Markets?	To obtain information on challenges to surpass	Open-ended Question	N/A

Source: Based on the literature described above

Table 17: Reliability Tests for FMOA, MCDM, Mimetism, Networks

IMS Method	Cronbach α	Number of items
FMOA	0,930	6
MCDM	0,960	16
Mimetism	0,912	3

Table 18: Hypothesis Testing IPR x Methods

Hypothesis	Test	Sig.	Decision

H_{11}: Being in an IPR region is related to the International Market Selection Preliminary Screening stage 1	Mann- Whitney	0,347	Not reject the null hypothesis
H_{12}: Being in an IPR region is related to the International Market Selection Preliminary Screening stage 2	Mann- Whitney	0,500	Not reject the null hypothesis
H_{13}: Being in an IPR region is related to the International Market Selection Preliminary Screening stage 3	Mann- Whitney	0,534	Not reject the null hypothesis
H_{14}: Being in an IPR region is related to the International Market Selection FMOA	Mann- Whitney	0,283	Not reject the null hypothesis
H_{15}: Being in an IPR region is related to the International Market Selection MCDM	Mann- Whitney	0,361	Not reject the null hypothesis
H_{16}: Being in an IPR region is related to the International Market Selection Formal Networks	Mann- Whitney	0,500	Not reject the null hypothesis
H_{17}: Being in an IPR region is related to the International Market Selection Informal Networks	Mann- Whitney	0,071	Not reject the null hypothesis
H_{18}: Being in an IPR region is related to the International Market Selection Geographic Proximity	Mann- Whitney	0,682	Not reject the null hypothesis
H_{19}: Being in an IPR region is related to the International Market Selection Mimetism	Mann- Whitney	0,090	Not reject the null hypothesis
H_{110}: Being in an IPR region is related to the International Market Selection Specific Order	Mann- Whitney	0,207	Not reject the null hypothesis

H_{111}: Being in an IPR region is related to the International Market Selection order from fairs	Mann- Whitney	0,864	Not reject the null hypothesis
H_{21}: Being in an IPR region is related to choosing Strategic Motivations to Internationalization	Mann- Whitney	0,802	Not reject the null hypothesis
H_{22}: Being in an IPR region is related to the Marketing Motivations to Internationalization	Mann- Whitney	0,085	Not reject the null hypothesis

Table 19: Hypothesis Testing Dimension x Methods

Hypothesis	Test	Sig.	Decision
H_{31}: The dimension of the winery is related to the International Market Selection Preliminary Screening stage 1	Kruskal-Wallis	0,247	Not reject the null hypothesis
H_{32}: The dimension of the winery is related to the International Market Selection Preliminary Screening stage 2	Kruskal-Wallis	0,404	Not reject the null hypothesis
H_{33}: The dimension of the winery is related to the International Market Selection Preliminary Screening stage 3	Kruskal-Wallis	0,027	Reject the null hypothesis
H_{34}: The dimension of the winery is related to the International Market Selection FMOA	Kruskal-Wallis	0,021	Reject the null hypothesis
H_{35}: The dimension of the winery is related to the International Market Selection MCDM	Kruskal-Wallis	0,062	Not reject the null hypothesis

H_{36}: The dimension of the winery is related to the International Market Selection Formal Networks	Kruskal-Wallis	0,154	Not reject the null hypothesis
H_{37}: The dimension of the winery is related to the International Market Selection Informal Networks	Kruskal-Wallis	0,985	Not reject the null hypothesis
H_{38}: The dimension of the winery is related to the International Market Selection Geographic Proximity	Kruskal-Wallis	0,562	Not reject the null hypothesis
H_{39}: The dimension of the winery is related to the International Market Selection Mimetism	Kruskal-Wallis	0,566	Not reject the null hypothesis
H_{310}: The dimension of the winery is related to the International Market Selection Specific Order	Kruskal-Wallis	0,331	Not reject the null hypothesis
H_{311}: The dimension of the winery is related to the International Market Selection order from fairs	Kruskal-Wallis	0,007	Reject the null hypothesis
H_{41}: The dimension of the winery is related to choosing Strategic Motivations to Internationalization	Kruskal-Wallis	0,322	Not reject the null hypothesis
H_{42}: The dimension of the winery is related to the Marketing Motivations to Internationalization	Kruskal-Wallis	0,262	Not reject the null hypothesis

Table 20: Hypothesis Testing Success x Methods

Hypothesis	Test	Sig.	Decision
H_{51}: Internationalization's success is related to the International Market Selection Preliminary Screening stage 1	Kruskal-Wallis	0,877	Not reject the null hypothesis

H_{52}: Internationalization's success is related to the International Market Selection Preliminary Screening stage 2	Kruskal-Wallis	0,479	Not reject the null hypothesis
H_{53}: Internationalization's success is related to the International Market Selection Preliminary Screening stage 3	Kruskal-Wallis	0,142	Not reject the null hypothesis
H_{54}: Internationalization's success is related to the International Market Selection FMOA	Kruskal-Wallis	0,372	Not reject the null hypothesis
H_{55}: Internationalization's success is related to the International Market Selection MCDM	Kruskal-Wallis	0,640	Not reject the null hypothesis
H_{56}: Internationalization's success is related to the International Market Selection Formal Networks	Kruskal-Wallis	0,284	Not reject the null hypothesis
H_{57}: Internationalization's success is related to the International Market Selection Informal Networks	Kruskal-Wallis	0,927	Not reject the null hypothesis
H_{58}: Internationalization's success is related to the International Market Selection Geographic Proximity	Kruskal-Wallis	0,038	Reject the null hypothesis
H_{59}: Internationalization's success is related to the International Market Selection Mimetism	Kruskal-Wallis	0,171	Not reject the null hypothesis
H_{510}: Internationalization's success is related to the International Market Selection Specific Order	Kruskal-Wallis	0,405	Not reject the null hypothesis
H_{511}: Internationalization's success is related to the International Market Selection order from fairs	Kruskal-Wallis	0,096	Not reject the null hypothesis

H_{61}: Internationalization's success is related to choosing Strategic Motivations to Internationalization	Kruskal-Wallis	0,109	Not reject the null hypothesis
H_{62}: Internationalization's success is related to the Marketing Motivations to Internationalization	Kruskal-Wallis	0,531	Not reject the null hypothesis

Table 21: Hypothesis Testing Success in Objectives x Methods

Hypothesis	Test	Sig.	Decision
H_{71}: Internationalization's objectives success is related to the International Market Selection Preliminary Screening stage 1	Kruskal-Wallis	0,752	Not reject the null hypothesis
H_{72}: Internationalization's objectives success is related to the International Market Selection Preliminary Screening stage 2	Kruskal-Wallis	0,042	Reject the null hypothesis
H_{73}: Internationalization's objectives success is related to the International Market Selection Preliminary Screening stage 3	Kruskal-Wallis	0,129	Not reject the null hypothesis
H_{74}: Internationalization's objectives success is related to the International Market Selection FMOA	Kruskal-Wallis	0,603	Not reject the null hypothesis
H_{75}: Internationalization's objectives success is related to the International Market Selection MCDM	Kruskal-Wallis	0,382	Not reject the null hypothesis
H_{76}: Internationalization's objectives success is related to the International Market Selection Formal Networks	Kruskal-Wallis	0,988	Not reject the null hypothesis

H_{77}: Internationalization's objectives success is related to the International Market Selection Informal Networks	Kruskal-Wallis	0,228	Not reject the null hypothesis
H_{78}: Internationalization's objectives success is related to the International Market Selection Geographic Proximity	Kruskal-Wallis	0,011	Reject the null hypothesis
H_{79}: Internationalization's objectives success is related to the International Market Selection Mimetism	Kruskal-Wallis	0,269	Not reject the null hypothesis
H_{710}: Internationalization's objectives success is related to the International Market Selection Specific Order	Kruskal-Wallis	0,767	Not reject the null hypothesis
H_{711}: Internationalization's objectives success is related to the International Market Selection order from fairs	Kruskal-Wallis	0,237	Not reject the null hypothesis
H_{81}: Internationalization's objectives success is related to choosing Strategic Motivations to Internationalization	Kruskal-Wallis	0,061	Not reject the null hypothesis
H_{82}: Internationalization's objectives success is related to the Marketing Motivations to Internationalization	Kruskal-Wallis	0,440	Not reject the null hypothesis