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INTERNATIONALIZATION FIELD LAB: *Pontual Software Solutions*

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Abstract

This thesis aims to develop a full-internationalization plan for the Portuguese medium-sized company *Pontual Software Solutions*. For the competition of the Work Project, a literature review on the topic International Market Selection and an in-depth analysis of the United Kingdom were conducted. The market research was based on four dimensions: potential contacts, market sales potential, competitive landscape, and market entry conditions. As a result, the United Kingdom was considered the most promising market and direct exporting was chosen as preferred entry mode. To strength the analysis, a marketing plan, and a financial forecast were further developed.

Keywords (International Business, Strategy, Small and Medium Enterprises, Software Industry, Entry Strategy, Market Selection, United Kingdom)

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Executive Summary

Pontual Software Solutions is a software development and consulting company operating in Portugal, aiming to be a reference player in the Enterprise Resource Planning (ERP) software. In recent years, the company reformulated its strategy by opting to target a market that has not been fully explored yet - medium-size enterprises. To expand its customer base and service offering, the company is pointing towards entering new markets.

To select the five most potential markets for the firm expansion, a set of variables was determined, which allowed to reach a country ranking. Then, a clustering analysis was conducted to group the countries according to their similarities within five variables: foreign direct investments - net inflows, financial attractiveness, expenditure on Research and Development (R&D) (in % of Gross Domestic Product (GDP)), technology absorption at firm level and cultural distance to Portugal. The combination of both methods showed that Sweden, the United Kingdom (UK), France, Germany and Switzerland are the most promising countries. Each country was analyzed in terms of contacts, competition, sales potential and market entry conditions. The decision to select the UK as the country with the most potential was based both on the evaluation of those factors and on the company's preferences.

Considering internal and external factors, a direct exporting intermediation was selected as the most suitable entry mode for the UK. By pursuing this strategy, the company can keep control of the operations in Portugal, while gathering deeper foreign market knowledge.

Furthermore, a marketing plan with suggestions was created and arranged to match the business to business (B2B) segment expectations and needs in the UK, as this is *Pontual*'s target.

Finally, the financial forecasts displayed that the company might be able to achieve a positive return in the 6 years considered for the analysis, which means that the internalization process can be profitable. However, the company should be careful, as the viability of the project is substantially affected by the number of projects they can obtain.

Introduction

The present Work Project comprises the development of a comprehensive Internationalization Plan for *Pontual Software Solutions*, a Portuguese medium-sized company. After meeting with the company's Chief Executive Officer (CEO) and Chief Operating Officer (COO) to understand their business model, services provided and their motives for internationalization, a deeper analysis of the firm and the market was performed.

The strategic analysis revealed that the company had the resources necessary to expand its business to new market. Therefore, to assess the markets with the highest potential, the team conducted a countries evaluation using two methods: country ranking and country clustering.

After selecting the five most promising markets, the elements of the group did an in-depth analysis for each of the countries with the goal of selecting the one with the most potential. The result from this phase revealed that *Pontual* would benefit from entering the UK market, which was aligned with the company's expectations.

Having the selected country, it was possible to determine the entry mode, as well as to develop a marketing plan and a financial forecast to diagnose the project's viability. For this purpose, the group agreed on a set of assumptions that might not correspond to the reality, so a sensitivity and scenario analysis was also performed.

Finally, the main challenges of the process were detected, which allowed the development of recommendations and suggestions that can facilitate *Pontual*'s internationalization process.

Literature Review – International Market Selection

International market selection (IMS) is a rational and constrained decision performed by the firm involving the search of comparative information regarding countries, industries, and consumers. To better understand it, some of the most relevant approaches will be discussed in this analysis: the traditional approach (Papadopolous and Denis 1988), the tradeoff model

(Papadopoulos, Chen and Thomas 2002), the three-step model (Cavusgil 1985) and the relationship approach presented by various researchers[1].

The traditional approach includes two distinct methods: the systematic and the non-systematic. The systematic method consists of a structured methodology and involves the use of various statistical methods to evaluate the potential of foreign target markets. It consists of a step approach beginning on the identification of meaningful choice criteria for the analysis. The weighting of each criterion is one of the most crucial steps in this methodology once it has an enormous influence on the generation of potential countries or markets (Anderson and Buvik 2002). In the assessment of the relative significance of each variable, it was proved that managers tend to disregard the culture dimension importance (Appendix 1) which can be considered the main drawback of this coherent approach (Robertson and Wood 2001). As stated by Czinkota and Ronkainen in 2012, "cultural incompetence can easily jeopardize millions of dollars in wasted negotiations". The non-systematic method is also considered a traditional approach once the focus is also the selection of a country. However, the model is not as rational, and the main source of information is experimental knowledge rather than secondary data. The information search is not as extensive when compared with the systematic approach and the data gathered is subjective (Anderson and Buvik 2002). The famous Cavusgil's three-stage model is a specific traditional approach which recommends three simple steps in the IMS process starting on a preliminary screening of countries (including country ranking and clustering techniques), followed by a market potential analysis and finally an analysis on the company's sale potential. The main advantage is its simplicity while the main drawback of the model is the high dependency on secondary data (Cavugil, Kiyak and Yeniyurt 2004). With the purpose of creating a simple and easily applicable across several industries model, a traditional alternative method known as the "tradeoff model" was developed. The model measures the

[1] Anderson and Narus 1990; Frazier 1983; Hallen, Johanson and Seyed-Mohamed 1991

tradeoff between demand potential and trade barriers. Each of these dimensions only count with four variables (Appendix 2) and the weights are further decided based on the firm´s strategy. This model confers several advantages: the analyzed variables are important based on past research; it creates ground for comparison for companies that operate across several industries and would need to develop more than one traditional model and its eight variables allow the model to be industry specific and generalizable at the same time. The model´s main drawback is the exclusive dependence on import measures as well as the applicability for companies operating very specific markets which would be better off by choosing other industry-specific variables (Papadopoulos, Chen, and Thomas 2002). The relationship approach was presented by several researchers as an alternative to the abovementioned methods. The major difference is that the focus is the selection of a foreign partner rather than a country or market (Appendix 3). The business relationship is the material for the analysis and managers choose based on compatibility, trust, and performance (Anderson and Buvik 2002).

In conclusion, the IMS has proved to be complex and under-researched while studies show managers need a unified theory (Papadopoulos and Martín 2011). The type of customers and preferred entry modes are the key aspects influencing the IMS approach selection. Currently, relationship approaches seem to suit best companies operating in B2B markets and contractual entry modes while traditional approaches are most often used in business to customer (B2C) markets when firms pursue non-contractual entry modes (Anderson and Buvik 2002).

Research Methods

The internationalization plan developed for *Pontual Software Solutions* relied on both primary and secondary data. The main source of primary data were the four meetings[2] with António Teixeira (CEO of *Pontual*) and Cláudia Andrade (COO of *Pontual*). Making the most out of each meeting was crucial to successfully retrieve useful guidance and materials to strength the

[2] On the 6th and 22nd of September and on the 6th and 25th of October. Meetings were held on Microsoft Teams and scheduled for 60 minutes.

analysis and for that reason, the group elaborated short presentations about each section of the report to make sure *Pontual* was well informed and therefore able of contributing in the most efficient manner. Every meeting with the company was recorded and meticulously analyzed.

Nonetheless, most of the information used was secondary data that was both qualitative, from academic papers, and numerical, from sources such as Orbis, World Bank, Organisation for Economic Co-operation and Development (OECD), The Global Economy, United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics, World Economic Forum, Credendo, Freedom House and The Heritage Foundation. *Pontual*'s financial and marketing reports and the company's website were also utilized. Every indicator retrieved from the previously mentioned data sources was carefully selected and validated to ensure unreliable information would not interfere in the analysis. The methods used to transform data into results were country ranking and country clustering, which included data curation techniques, the imputation of missing values and data standardization to allow comparison between indicators. For the data analysis, Excel and SPSS were useful tools to achieve results.

The internationalization plan relies mostly on secondary data, which raises risks and limitations for this report given that several conclusions were drawn by information gathered by several entities or unknown researchers. Despite this, the group is confident this risk is mitigated due to the rigorous selection process behind each source.

1 Strategic Analysis

1.1 Firm overview and project background

Profile and Management

Pontual Software Solutions is a software development and consulting company founded in 1993 to meet the growing necessity of technology implementation in the industry. Initially based in Porto, and later transferred to Santa Maria da Feira, where it's currently headquartered, the company has delegations in other Portuguese locations, such as Porto, Viseu, Lisboa, Fundão

and Vila Real. Internationally, it is already present in Spain (Barcelona), Brazil[3] (São Paulo) and Macau. It is a company with strong expansion power and consolidated experience in the implementation of integrated systems, with references in different sectors of activity, such as healthcare, accounting, law, among others.

It offers their own software management solutions that are designed to maximize efficiency and productivity from several business areas while also acting as an intermediary for Software Houses. Its mission is to create value in organizations with innovative technological solutions, by promoting greater agility and operational performance, as well as better management. They envision themselves as a reference player in the ERP's market and leader in the vertical markets in which they operate, aiming to be recognized for the business vision, the competence of their professionals, the proximity, and the values they defend and advocate.

In terms of management and formal structure, António Jose de Oliveira Teixeira is the CEO of *Pontual*, also performing functions as Managing Partner and having a direct share of 75% regarding ownership. Maria Isabel Portela Sousa is a Partner, with a direct share of 25% and Cristina Barata is the Financial Director. The firm has 4 departments: Marketing; Human Resources; Operations and "Academia"; and Administrative and Financial. Moreover, it has 8 business units in different areas: PHC Software Unit; Primavera Software Unit; SAGE Software Unit; Software Engineering Unit; Veterinary Software Unit; Legal Software Unit; Systems and Managed Services Unit; and E-commerce and Web Solutions Unit. Currently, the entire team consists of more than 100 elements (Appendix 4).

Business Portfolio

Pontual is a distributor of the ERP management software for several market sectors, having established strong partnerships such as Primavera, Sage, PHC, and Eticadata (Appendix 5). In

[3] The market in Brazil was proven not viable from an economical point of view, so *Pontual* will officially leave this market at the end of 2021.

addition, it also leverages the existing ERP solutions for each client, producing complements to software (add-ons) that match the specific needs of a client or sector of activity.

When it comes to products, *Pontual* has a wide and varied portfolio (Appendix 6), which is based on software that cover different business areas ranging from healthcare to law. The company also offers several services from Software Engineering to Consulting. Concerning Software Engineering, they have a unit where they transform ideas and challenges into unique solutions that increase efficiency in organizations and companies. They also provide hardware, counting on the support of multiple partners, with which they can guarantee the functionality of the implemented system by each business, proposing improvements to respond to current problems and future needs of their clients. They operate in the maintenance and optimization of resources associated with information technologies, from equipment, software, and computer network. *Pontual* also takes care of the printing management of the businesses that would like to benefit from this service. This way, they can identify a client specific printing needs and recommend a suitable and flexible solution to optimize their printing process and reduce costs. Consulting is how *Pontual* creates partnerships with clients while supporting them in several processes. *Pontual* also integrated the *Lendarius* company into its Group to expand its portfolio of solutions towards Web Solutions Development, especially regarding the integration of business processes with online stores, where they use several of their software and products.

As part of their timeline, it is possible to highlight the launch of the Software Business for Private Notaries Unit in 2004; the launch of the Software Business for the Veterinary Sector Unit in 2008; and the launch of the PHC and SAGE Software Unit in 2016.

Operations, positioning and strategy

Pontual Software Solutions recently repositioned itself in the market between the "self-service" software companies and multinational companies such as Microsoft or SAP. Their strategy is to target a niche that has not been fully explored yet - the mid-size enterprises, that is, the firms

that are growing their business and, consequently, need closer support than the one the small companies can provide, but do not have the financial capacity to hire multinational partners.

For this purpose, they take advantage both of their expertise implementing software and providing support to small clients, as well as of their balanced employee ecosystem that includes mature employees, which already have a strong knowledge of the clients' needs, and new employees, mostly recent graduates, which can offer better insights on new technologies.

Furthermore, the company also maintains a growth strategy that focuses on expanding its business to new markets outside Portugal. Over the years, they seized opportunities that arose and established their international presence. Despite being able to successfully internationalize, the company faced some challenges either regarding the external environment (cultural adaptation) or internal conditions (lack of focus – "Given that we have a very extensive portfolio of solutions, we end up losing focus and not developing everything as we should"[4]).

End-user service to be internationalized

According to *Pontual*'s CEO, the company distinguishes three main vectors for its operations: implementation of ERP solutions; adaptation and personalization of standard software to each company's reality (add-ons) and commercialization of cloud solutions and infrastructures.

To continue its growth, the company wants to keep expanding to new countries and, at an initial stage, is seeking to internationalize one of their services – software adaptation and personalization, namely add-on complements to ERP solutions.

Financial Overview

To understand the potential of the company, it is important to also analyze its financial performance over the past years (Appendix 7). From 2016 to 2020, the firm's net income suffered an increase of over 450%, from 35 827€ to 202 767€, which was caused mainly by the increase in revenues, which more than doubled. In addition, a more effective allocation of

[4] António Teixeira, CEO of *Pontual Software Solutions*.

resources was visible as the net profit margin improved from 1,76% to 4,21%. Moreover, *Pontual* has been investing efficiently, having a high return on capital (39,59%) along with a good return on total assets (9,55%).

Even though the firm is keeping good profitability, in 2020 its gearing ratio reached a value of 52,27% - the highest percentage since 2011, which makes the business highly levered and can result in greater financial risk. In addition, the liquidity ratio is only 1,09 meaning that the company has just enough assets to cover their liabilities, and the solvency ratio, despite still being above 20%, has been decreasing.

Overall, *Pontual*'s financial situation and its repositioning in the market demonstrate that the company can leverage its resources to grow.

1.2 Market/industry analysis

The Software Industry "consists of the development, distribution, and maintenance of software. It can be broadly divided into application software, system infrastructure software, software-as-a-service, operating systems, database and analytics software" (Statista, n.d.).

The industry of Technology and Telecommunications represents 4,8% of the European economy (Portugal IN, n.d.) and it is divided into different specifics: Consumer Electronics, Hardware, Household Appliances, Information and Technology (IT) Services, Software, and Telecommunications. Although *Pontual*'s business involves multiple activities, the Software Industry is considered as the focus for this analysis, and the Information and Communications Technology (ICT) is considered as a proxy when information is not available.

Political Factors Affecting the Industry

Industry Regulation: Software industry standards are a set of basic guidelines and best practices followed by software companies to maintain product uniformity. Software industry associations and organizations have written some requirements, but others are less well defined (Mitchell, n.d.). Everything from product labeling to system efficiency is regulated by industry standards

in the design and marketing of software. There are no predominant software laws, even though several sectors of the software business are regulated by specific laws (Appendix 8).

Government policies: Quarantine restrictions during the Covid-19 pandemic pushed individuals and companies to rely more on online services, which has had a significant influence on the use of internet services. Consequently, as stated in the Portugal Country Commercial Guide 2020, Portugal has enhanced measures to attain a stronger digital change and economic revitalization. The areas of big data, exchange of electronic information, cloud services, digital technology integration and e-commerce play an essential role in Portuguese firms, however they are still less developed than other European Union (EU) members (International Trade Administration 2021).

Economic Factors Affecting the Industry

The year of 2019 was a highlight in Portugal's economic performance in recent years. During a global demand downturn, the country's GDP growth remained constant, unemployment virtually halved in 4 years, investment remained strong, and exports demonstrated resilience; the country also produced its first government surplus in over four decades (EY 2020).

"In December of 2017, the Fitch Ratings agency raised Portugal's bond rating from junk status (BB+) to investment grade (BBB). This was preceded by S&P's announcement of an upgrade to investment-grade status in September of 2017" (EY 2020). Currently, ICT investments correspond to half of the total productivity growth in Europe. According to the EY European Investment Monitor, the amount of Foreign Direct Investment (FDI) projects in the country more than tripled between 2015 and 2019, reaching a new high of 158 last year. More about tax benefits can be found in (Appendix 8).

Social Factors Affecting the Software Industry

Education: Portugal is the "5th European country with the highest number of doctorates in science and technology per 1000 inhabitants between the 20 and 29 age group" (Portugal IN,

n.d.). Portuguese higher education has a solid reputation and has strong collaborations with internationally well-known organizations such as Carnegie Mellon and MIT (Appendix 8).

Gender and Compensation: Since the ICT industry is very wide, not all software engineering careers are the same. The wages vary according to experience and skills required; Appendix 9 gives an overview of how much the different types of software engineers earn (Payscale, n.d.). When it comes to paying equity and gender equality, in 2017, Google employees publicly shared data that highlighted that woman were being paid less than men at most job levels. The ICT industry often singled out for its weak record on gender pay equity, because gender disparity is easier to spot due to limited female representation in the workforce (Payscale 2021).

Age: Currently there are around 24 million developers in the world and this number is predicted to rise to almost 30 million in 2024. Asia is currently generating more software developers due to its youthful population, which leads to a continuous decrease in the average age of software developers (Evan Data Corporation 2021).

A survey conducted by Stack Overflow in 2018 revealed that in that year, the average age of developers globally ranged between 22 and 29, with only 7% of professionals being older than 45 years old. This fact suggests that when developers are in their mid-40s, they might be concerned about job security and prospects. Additionally, ageism in tech is damaging the businesses that do not have age-diverse teams, because senior developers contribute with experience while younger developers bring fresh solutions.

Technological Factors Affecting the Software Industry

As previously stated, Portugal has a strong pool of technical expertise with relatively cheap rates due to the country's historically poor economy (see indicators in Appendix 8).

Portugal is now committed to being part of the European technology community. With new competitive advantages like innovation based on system design, integrated business solutions,

high standards of quality and professional values, customer focus and international business culture, Portugal can now participate actively in the European run (Portugal IN, n.d.).

Also, some of the most recent initiatives include more than a hundred technology service centers, excellent incubators, and venture capital resources.

Legal Factors Affecting the Software Industry

The General Data Protection Regulation (GDPR) requires data controllers and processors to take proper technical and organizational methods to protect data processing risks, such as pseudonymization and encryption of personal data, assurance of ongoing confidentiality and integrity, and regular testing, and evaluation of technical and organizational measures' efficiency (Appendix 8).

Environmental Factors Affecting the Software Industry

The growing electricity consumption is the most significant contribution of software to global warming (Pordata, n.d.). The whole life cycle of goods in the software business (from research through development, testing, and production) must be reduced in terms of energy footprint (Podder et al. 2020).

According to Juniper Research, the sector of ICT currently accounts for over 2% of world emissions, and that value is forecasted to increase to 15% by 2040, which can be explained by the rapid growth of the Internet of Things (IoT). In addition, the number of IoT connections is predicted to increase by 130% in only four years, from 35 billion in 2020 to 83 billion in 2024 (Tandem 2021) (Appendix 8).

Porter's 5 Forces

Having gathered data on the industry, *Pontual* must pursue the Information Assessment. One of the most accurate approaches is the Porter's Five Forces Model, so that the question "How will these developments affect the company?" can be answered accurately. The five forces that

affect industry competitiveness are buyers, suppliers, potential new entrants to the industry, the availability of substitute products and rivalry among competitors.

- *Bargaining Power of Buyers:* The power of buyers measures how easily can a customer switch from a company to its competition. At a first stage, buyers come across a wide range of possibilities when choosing an IT company to develop and implement a software. However, the Software Industry is particular in the sense that the bargaining power of buyers decreases as the complexity of the work done by Software Companies increases. If a given software client has its operations overly attached to the ideas of a given ERP solution, it would be harder to switch to a competitor and start implementing a completely new software, in terms of logistics and costs. Summing up, the risk of dependency and the uncertainty related to the expenses are inherent to this business and both make buyers less powerful (Buchegger 2014).
- *Bargaining Power of Suppliers:* The Software Industry suppliers are not "traditional suppliers" but are instead Software Houses, whose work is to generate the material on which software businesses may work (Buchegger 2014). The mission of these players is to create software that is as comprehensive as possible, like SAP and Microsoft Office, for example. Further personalization is then performed by Software Solutions' specialists. The developed software must find its way to the client, and suppliers are responsible for that (Buchegger 2014). Software suppliers (Software Houses) are the base of the industry and companies must strive to gain competitive advantages through the relationship with these players. In a market highly dependent on partnerships, if the supplier changes completely its offers or strategy, it can have a major impact on any player on the ecosystem. For those reasons, suppliers can be considered a powerful force in the Software Industry.
- *New entrants:* The Software Industry and its players are constantly threatened by the possibility of other companies entering the market since new entrants bring innovation and new solutions. However, the software business naturally creates a tactical advantage for existent

businesses, once working alongside a client with personalized IT service and unique ERP solutions may make it difficult for new entrants to penetrate, especially market niches (Sengupta 1998). For this reason, barriers for new entrants cannot be considered too high nor too low.

- *Threat of Substitutes:* In the Software Industry, the major threat of substitution is represented by a short-cut in the software Ecosystem. Software implementors like *Pontual* are an important force in the Ecosystem but there is always a threat in its supply chain. This is because some potential end-customers may not need a firm to implement and personalize the work done by Software Houses. For smaller businesses, simple self-service software (Software as a Service (SaaS) models) may be enough given the companies' size, which would make firms like *Pontual* (intermediaries) irrelevant (Wei et al. 2007). On the other side, larger companies may have their own IT department, which make the work performed by on-premises software firms irrelevant since the product offer from Software Houses is enough and further personalized in-house. As a result, the threat of substitutes is moderate in this industry.
- *Rivalry:* In this industry, the more specific and personalized a Software Company's offer and products are, the less threatened that firm is with the existence of substitute products and services. The demand is diversified given that clients expect tailor-made solutions and, in this industry, specialist companies usually last longer (Romanelli 1989). This way, personalization represents a competitive advantage for smaller software implementors, since it becomes difficult to compete with big consultancy firms like Accenture or Deloitte for bigger clients. The intensity of rivalry can be considered high in the ERP software and IT services business given that most end up fighting for high levels of personalization and market niches.

Consumer trends

Nowadays, software is present in the day-to-day lives of individuals and businesses once applications and operating systems, for example, are commonly used in every type of activities.

Naturally, the investment in enterprise software is currently increasing more when compared with other sectors in the tech industry (Statista, n.d.). In addition, sustainability and "green practices" are becoming trending topics among organizations and consumers while supply chains keep being renovated to guarantee a more agile, efficient, and global world (EY 2020).

Familiarity of brands: Software and IT companies focus their business models on providing services of installation, management, and consulting to other businesses, making the B2B sales channel the most prominent in the software industry; keeping this in mind, the B2B purchasing process becomes more rational and much less emotional. When purchasing services or products, buyers in the B2B segment tend to demand a justification for their decisions and for that reason, functional features, pricing, or service quality are relevant in the whole process. Nevertheless, the demand within the software industry is very affected by the market behavior and by the familiarity to the brand. Software suppliers like Microsoft, Oracle, IBM, Salesforce, and Apple as well as ERP software companies like Deltek and Workday distinguish themselves due to the impactful software solutions they provide for businesses across the globe (Pang 2019). For that reason, having a partnership with one of the above-mentioned top companies conveys a great advantage to software implementation.

To summarize, major industry trends include a growing desire for transparency and anonymity, a higher "human touch" in client contacts, an increasing demand for automated software and features and the preference for services associated with multinational brands (McKinsey & Company 2020).

Cloud technology: The cloud services industry in 2020 generated more than 40 billion dollars in revenue and now the cloud service's market is valued at 266,5 billion dollars (Markets and Markets 2021). In the software development industry, it is a well-established fact that the money is in cloud services, so cloud vendors such as Amazon, Google, and Microsoft will most likely continue to invest in this technology in 2021 (Dignan 2021). The reason behind this is

that the number of companies using cloud services right now is increasing and this number is predicted to increase at an even higher rate in the future (Bulao 2021). All in all, cloud technology's success comes from its flexibility, scalability, and security features that reduce the threat of hackers and avoid security breaches.

Forecasts

Forecasts are relevant to assist companies on making informed strategic decisions based on the direction of future trends.

- *Reactive Web applications are the future*: There is a new approach to app construction which improves the web and mobile development experience known as Reactive Web applications. When comparing this new method with traditional web, there are several key advantages in the adoption process. Characteristics like asynchronous data fetching, client-side and service-side logic and reactive client-side rendering enable improved performance and allows optimization of apps in less time (Simões 2020).
- *5G Technology will be unparalleled:* After the 5G and coronavirus controversy, software developers can now expect the 5G tech to return as a trend, but now for all the right reasons. 5G technology is roughly 100 times faster than 4G networks and the Global 5G Technology Market is expected to reach 65,49 billion dollars by 2026 (Research and Markets 2021).
- *Investment in Artificial Intelligence (AI) will increase:* According to International Data Corporation's (IDC) 2017 Worldwide Artificial Intelligence Expenditure Guide, in the present year, the investment in AI systems is predicted to increase from $85 billion to, at least, $204 billion in 2025 (Shirer and Glennon 2021). Artificial Intelligence-based analytics are already being used by tech giants like Google, Facebook, and Apple and now AI is progressing at a fast pace as it is becoming better in decision making and in delivering relevant user experience details (Sachdev 2021).

- *European Digital Agenda:* The "Path to the Digital Decade" is a new plan developed by the European Commission which aims to achieve society's digital transformation by the year of 2030 (European Commission 2021). This plan assures that every member state can contribute to specific matters such as digitalization of public services and businesses, digital skills, and digital infrastructures. The contribution guidelines are contemplated in a framework. The pandemic emphasized the importance of digital technology in ensuring a sustainable and prosperous future, therefore the Path to the Digital Decade has the main goal of strengthening digital leadership and empower European citizens and enterprises.

Key industry success factors (KSF)

"KSF's identify the most important issues/areas that need attention to perform properly for the business to flourish" (Yaghoobi 2017, 1). In the software and IT service industries there are three "macro factors" crucial to the business success: time, cost, performance (Yaghoobi 2017).

- *Implementation and Innovation speed:* A Software or IT service company should be capable of implementing its products/services on time while not losing track of new market trends.
- *Price Accessibility:* In the Portuguese market, companies need to charge accessible prices. However, Software companies that work to distinguish themselves from the competition by finding market niches can charge higher prices due to the low supply for those solutions.
- *Service/product quality and Reliability of firm:* Companies need to prove to have the right resources and partnerships to offer complete solutions and then build a reputation of quality.
- *Specific Market knowledge:* Success in this industry relies on market knowledge and experience. Both are major sources of competitive advantage given that by focusing on market niches, firms gain a certain level of expertise that reduces the threat of new entrants.

Porter's Diamond – Portugal

Porter's Diamond model includes four country-specific determinants. These factors are critical in helping a company maintaining and building competitive advantages.

- *Factor Conditions:* In terms of personnel, "skilled human capital remains the most crucial factor for software innovation" (Lippoldt and Stryszowski 2009, 23). Portugal follows the European trend of shortage of skilled human resources in the IT business which makes salaries in this area higher when compared with what is being paid in other industries. This can be problematic for software companies that work mainly for the Portuguese market given that they are currently paying salaries at an international level but selling products at national prices (Peralta 2021). Concerning IT knowledge, Portugal was placed as the 26th most competitive economy in the IT industry with an overall score of 47 out of 100 (The Software Alliance 2011). These results may affect the service perception sold by Portuguese software firms while not allowing these companies to charge higher prices. In terms of industry financing, Portugal (IAPMEI 2021) along with the European Union promote IT Portuguese firms abroad by providing economic incentives to small and medium enterprises.
- *Related & Supporting Industries:* The presence of international supplier industries in Portugal creates opportunities for national software companies. Multinational IT companies like SAP, Microsoft, Cisco, Oracle have offices in Lisbon (Glassdoor, n.d.), which naturally drives innovation and creates a strong Software Ecosystem in which smaller national players can seek partnership opportunities and create their demand. The software and the IT service industries are complementary and, for that reason, a strong presence of multinational software houses in Portugal creates more fields to be explored by IT service businesses.
- *Demand Conditions:* The software market revenue in Portugal will keep increasing in the following years due to the increasing demand for these products (Statista, n.d.). Naturally, the IT services industry follows the same trend worldwide (Gartner 2021). The buyer sophistication depends mainly on the size of each customer. Large companies demand better solutions from big software companies. However, small, and medium companies may need another type of

solutions and further personalization and IT service. For that reason, smaller software companies can easily find market niches in which they can become specialists.

- *Firm Strategy, Structure & Rivalry:* The Software Ecosystem is structured the following way: customers normally purchase/subscribe to business software directly with Software Houses and afterward, software companies work together with the client in the implementation and personalization of the software. Customers are not only paying for the software alone but also for the personalization service (Dinsmore and O'Connor 2005), so a sustained competitive advantage is created through specialization. Partnerships between Software Houses and companies responsible for the implementation and personalization are key in this sector since both components can affect buyer's decisions (Berk, Jansen, and Luinenburg 2010). IT services firms usually work with specific sectors in which they can gain deeper market knowledge, thus becoming more competitive and, consequently, being able to charge higher prices.

1.3 Firm-specific advantages

Attending the Resource-Based Theory, it is important to understand resources and capabilities heterogeneity within companies to explain the contrasting performances between competitors. Resources are assets tangible or intangible, owned by a firm and used to create and implement strategies. They can be divided into six categories: Physical; Financial; Technological; Human; Social and Organizational. Capabilities represent a company's capacity to deploy its assets to perform an activity to improve its performance (Fensterseifer 2009, 3-4).

Pontual is a distinguished player in the ERP market and is able to ensure its reputation due to its resources (Appendix 10). Headquartered in Santa Maria da Feira, the company owns a set of software solutions developed in-house (physical resources). Besides software complements, the company is also capable of providing Software Certification, Implementation and Configuration whether by using its own or third-party technological tools, such as Microsoft.net, Cloud, Java (technological resources). To achieve the best term relationship with

its customers (Cofidis, Fnac, Amorim) and suppliers (Fujitsu, Microsoft, Storage Craft), to become the preferential representative of large software houses (Watchguard, Kaspersky, Sophos) and to establish long term partnerships with strong reputational brands (Primavera, Sage, PHC) (social resources), the firm relies on its skilled team composed by a mix of senior and junior members who help promoting efficiency and extensibility when answering customers' needs (human resources). With 27 years of history, the company trusts its internal structure and culture to offer management solutions designed for boosting efficiency, productivity and answer the needs and complexities of each business area (organizational resources). Moreover, *Pontual* had been efficiently managing its resources, which translated in a growing net income over the years and maintained an effective investment capacity with a high return on capital (financial resources). Relying on these resources, the firm developed several capabilities to boost its business performance:

- Ability to develop unique software solutions, thus empowering customers with efficiency and productivity: business model centered around network value creation. Relying on the competency of each business unit team, the company produces complements to existing ERP solutions, that match the specific needs of a client, thus promoting personalized and flexible solutions adaptable to each situation (e.g., created JurisFlow to simplify the life of lawyers);
- Ability to retain know-how and gain experience from each client: because of the consulting operations, each relationship is mutually beneficial since the company itself gains know-how about each client's sector, and the client wins a trustful partner - *Pontual Software Solutions*.
- Ability to manage intermediary third parties in the software value network, thus representing a trustful partner: *Pontual* is currently disposing of its own or third-party technological tools to better answer to customers' needs.

- Ability to provide a 360º operational solution: Besides development of software complements, *Pontual* also provides software implementation, configuration, and certification. Besides, it offers maintenance and optimization of equipment, software, and computer network.
- Ability to expand to other business areas: recently *Pontual* has proven its capability to expand and negotiate through mergers and acquisitions by integrating *Lendarius* digital agency within its group, increasing the product portfolio to other areas such as Digital Marketing, Web Development, E-commerce, and Communication Design.

When resources are Valuable and Rare and its benefits properly appropriated, it creates a competitive advantage. Most of *Pontual*'s capabilities are valuable but not rare since many competitors in the ERP market have the same ability to provide, develop, implement, and configure software solutions adaptable to each client's needs. Thus, *Pontual* must trust its organizational structure and professional team to differentiate from its peers as they provide the ability to establish and retain long term partnerships. Each relation is unique and adds know-how to the company's value network, which is hard to be replicated by competitors (Appendix 11). Placed in a Parity competitive position, *Pontual* should invest and protect its organizational and unique human resources as they present a potential source of competitive advantage.

Company's value chain

The value chain concept was proposed by Porter in 1985. A value chain analysis provides a better comprehension on the costs and sources of differentiation within competitors by disaggregating a firm into its primary activities (marketing, operations, and services) and supporting activities (firm infrastructure, technology development, human resource management and procurement and purchasing):

- *Marketing and sales:* entail activities related to the way *Pontual* operates in order to acquire and retain clients, such as advertising and promotion on social media – Facebook and LinkedIn.

- *Operations:* consists of a set of activities such as research (responsible for disruptive product improvements), product management (engagement with customers and partners to gather feedback on user scenarios and pricing schemes), development (improvement of product performance and quality, as well as enhancement of productivity) and release (ensure the software meets a predefined quality criteria and is properly delivered to the target customers, and verify if the different components are compatible).
- *Service:* includes customer service and software maintenance activities, which helps to capture client and strengthen long-term relationships.
- *Firm infrastructure:* company's activities related to legal, administrative, accounting, finance, and public relations matter.
- *Technology development:* entails activities such as Cybersecurity, IT management and R&D. These boost an organization's performance through the use of new technologies.
- *Human resource management:* it includes the management of human resources which involves recruiting, training, creating, and maintaining the organizational culture. This activity is crucial for the company since human capital is *Pontual´*s major competitive advantage.
- *Procurement and purchasing* as a software distributor, the company must manage both its contacts with the clients and the partnerships with Software Houses, which are necessary to maintain an efficient business model.

Attending to the intensity of competition within the software industry, *Pontual* should perform these strategic activities efficiently to attain competitive advantage.

1.4 Diagnosis for internationalization

Motives for internationalization

According to Timothy Pett, John Francis and James Wolff (2004, 46), "the decision to internationalize adds a layer of complexity to the strategy of Small and Medium Enterprises (SMEs)" thus it is critical to understand the companies' motivation to internationalize which

"may vary across sectors, depending on the size of the enterprise, their previous experience with international operations, etc." (Kubíčková, Votoupalová, and Toulová 2014, 320).

In 2008, Svend Hollensen proposed a theory that divided the main reasons for internationalization into proactive and reactive ones. Proactive motives are based on the firm's desire to use its competencies and capabilities as well as to exploit market opportunities so that it can adjust its strategy to grow. On the other hand, reactive motives reveal a firm's passive reaction to changes in the market, that is, the company adapts its business over time to accommodate to the pressures of the market.

Pontual wants to internationalize due to both motives. First, to take advantage of its technological capabilities and resources to further tackle new market opportunities (proactive reasons). By doing so, the company can expand not only its customer base but also its product portfolio by developing additional software that fulfills the needs of the new segments. Notwithstanding, internationalization was also triggered because of threats in the Portuguese market. Since the services offered by software companies can be performed remotely, international companies will start recruiting the already limited human resources available in the market in which *Pontual* operates. To retain the technical staff, the company will be forced to increase the rate spent with personnel costs which can only be done if it expands to new markets as the market in Portugal cannot support the value of these costs (reactive reasons).

SWOT matrix

Based on the internal and external analysis previously made, *Pontual* can now follow some measures to mitigate risks and take advantage of the market opportunities (Appendix 12). By using its strengths, like the already established international partnerships, the company can start to expand its client base, reaching out to potential customers with a higher purchasing power. Consequently, *Pontual* will be able to increase its revenues, leaving room for the payment of higher salaries, which may lead to an increase in employee satisfaction and lower turnover rates.

Furthermore, *Pontual* might be able to increase the overall budget for its international expansions and take advantage of a cheaper and more specialized labor force outside Portugal. Also, the increasing demand for online products and services will allow *Pontual* to expand its portfolio of solutions and gain a privileged competitive position, which may ultimately lead the company to its goal of becoming a reference brand in the Iberian market.

Porter's Generic

Porter's Generic Strategies are categories of strategies proposed by Michael Porter. The idea is that any of these strategies can produce a competitive advantage for a business in each market. *Pontual* is a differentiated firm operating in the software industry in Portugal, offering a portfolio that is both varied and of excellence. The company focus on a Differentiation Strategy, combining both differentiation and competence. As opposed to some of its competitors, which focus on low cost, *Pontual* seeks to offer unique solutions to several sectors while positioning itself as a premium firm. When it comes to the actual price of products or services, *Pontual* has the particularity of practicing medium-high prices. Successfully practicing a Differentiation Strategy as the source of their competitive advantage, leads *Pontual* to be particularly strong as a firm due to the contributions of its several business units (Porter 1980).

FSA-CSA Matrix

There are two dimensions of advantages that a firm must consider when internationalizing: firm-specific advantages (FSAs) and country-specific advantages (CSAs). By combining these two in a matrix, a firm can study how the international strategy should be carried out.

As mentioned previously, the services offered by software companies can be performed remotely, so international companies can start recruiting the already limited human resources

available in the Portuguese market, contributing to a weak CSA dimension. Firms that follow a differentiation strategy are usually associated with strong FSAs.

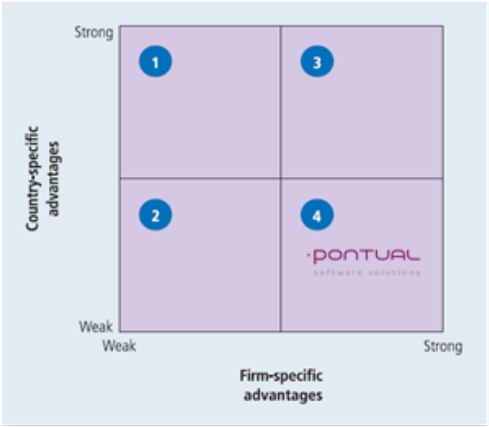


Figure 1: FSA-CSA Matrix

A firm setting in quadrant 4 (strong FSAs and weak CSAs) is already following an efficiency-based strategy, so there is no motivation, nor necessity, to move to quadrant 3 (Rugman, Collinson, and Hodgetts 2006, 51). *Pontual* will position itself in quadrant 4, meaning that the focus of the international strategy will be mainly on exploiting the firm's resources and know-how (Figure 1).

Global readiness

Pontual scored 77% in the Global Readiness test, which is a test that consists of a set of questions that evaluate whether a firm is ready or not to internationalize. The result achieved reveals that the company has the necessary attributes to expand internationally (Appendix 13). A score between 70% and 90% means that a firm has the resources to focus on foreign market presence. It also implies that the firm can achieve all the other modes related to lower percentages, such as being present through e-commerce, exporting indirectly, obtaining contractual arrangements, and exporting directly. The test result depicts an accurate representation of *Pontual* given the fact that they are already present in Brazil, Macau, and Spain. In addition, it is known that the firm has contacts in Peru and Mozambique which can be leveraged in future internationalization processes (GMMSO 2018).

2 International Market Selection

2.1 Country selection criteria

The process used for evaluating potential foreign markets for *Pontual*'s internationalization consisted in three stages: Premeditated analysis, in-depth analysis, and final selection.

At the first stage, potential countries were evaluated based on macro-level indicators: 1) Demographics; 2) Market growth and receptivity; 3) Financial; 4) Software industry; 5) Logistics; 6) Innovation; 7) Country risk and 8) Economic freedom. Each indicator is composed of a set of variables identified as relevant for the firm's internationalization success.

In the second stage, the same critical variables were weighted according to its importance for the industry in which *Pontual* operates and its impact in the success of the operation. According to Appendix 14, it is possible to observe that the Demographic variables (Population Growth and Age Dependency Ratio), relevant to analyze potential future problems related with workforce shortage or market size limitations, are not as important in determining the effectiveness of the internationalization project as the Software Industry variables. Thus, the Demographics were given a weighted importance of 3%, while the Software industry variables were given a weighted importance of 28%. Following this procedure, each country will then be scored and ranked, illustrating the relative attractiveness of the countries investigated.

Country ranking is a method for companies to select the optimal country for an internationalization process, however it only identifies the most attractive markets without revealing differences or similarities between them. Therefore, the Country clustering method was applied to complement the ranking analysis, as it considers a set of proposed variables to segment world markets on similar clusters. This gives a general idea of which group of destinations could be optimal for *Pontual*'s internationalization process.

Based on the assessment scores and considering countries clusters, five countries will be selected for an in-depth analysis.

2.2 Country ranking

Country ranking was a method used to identify the optimal target markets to internationalize, consisting of ranking "countries on some meaningful indicators of market potential" (Cavusgil, Kiyak, and Yeniyurt 2004, 609). The main objective of this method is to rank the countries

based on relevant indicators for *Pontual*'s industry – software solutions. For this purpose, 23 variables were selected (Appendix 14), covering 8 dimensions (macro level indicators mentioned above), which allowed for a greater knowledge of each country's the potential.

The ranking process was based on a five-step approach. Firstly, a set of meaningful variables was selected based on the industry in which the company operates, as well as on more general economic and demographic factors. After collecting the data, some of the countries were removed as they lacked data for more than 6 indicators and others were discarded because did not fit *Pontual*'s business expectations, leaving only 100 countries for further analysis.

Unfortunately, a few of the selected variables were lacking information for some of the countries (Appendix 15), and since the country ranking and cluster analysis requires the full completion of the dataset, the SPSS software was used to estimate specific missing values. The SPSS generates random numbers to then perform multiple interactions until it finds a suitable data for each missing value. Initially, the existence of a pattern regarding missing information was analyzed. Since there was not, the Mersenne twister technique was used before the actual imputation to generate random numbers. The imputation was controlled since, besides the SPSS method of finding reasonable values for each missing data, a maximum and a minimum possible outcome was determined based on the observed values in each variable.

After the dataset was completed, the data was standardized into z-scores, minimizing variance effects to allow its comparison and consequent analysis. For the standardization, there was an evaluation on whether a high value for the variables had a positive or negative impact on the analysis (Appendix 16). In addition, each variable was weighted concerning its relevance for the project, with the weights ranging from 1% to 12% (Appendix 17) and summing up to 100%. Finally, the weighted indicators were summed to reach the final scores for each country, making it possible to rank the 100 countries (Appendix 18) in a descending order - from the one with the highest potential (Sweden) to the one with the lowest potential (Angola).

2.3 Country clustering

Clustering yields groups of countries that share economic, political, and cultural characteristics. It is more suitable for firms trying to standardize their offering as it "provides insights into structural similarities among markets" (Cavusgil, Kiyak, and Yeniyurt 2004, 615).

A hierarchical cluster analysis was conducted using five distinct variables that could accurately represent the method used in the country ranking composition, while also considering those variables that can better exhibit similarities among countries: Foreign Direct Investments, net inflows; Financial Attractiveness; Expenditure on R&D (% of GDP); Firm Level Technology Absorption and Culture Distance to Portugal.

At the same time, it was decided that the number of analyzed variables should be kept low to reach accurate results instead of a broad solution. For this analysis, all numbers were standardized in SPSS once each variable was measured in a specific unit. The technique used was the Ward's method to obtain more evenly sized clusters while minimizing the variability and maximizing the variance (distance) between clusters. The final output of the analysis can be explored using the dendrogram (Appendix 19). The optimal number of clusters was decided based on a non-hierarchical cluster analysis which was conducted using the Two-step method. The Akaike Information Criterion (AIC) was used to determine the best solution once it estimates the quantity of information lost in an analysis, the less information a model loses, the better the model may be, which is represented by a lower AIC (Billard 2005). This methodology is based on the Occam's razor principle which states that given two statistical models that explain the exact same phenomenon; the simpler is the one with highest likelihood of being correct (Duignan 2018). Thus, the AIC penalizes the complexity of the models and, in this case, the increase in the number of clusters (represented by the number of multiple iterations performed by SPSS. In Appendix 20, it is possible to observe the output of the Akaike Information Criterion which indicates that the best solutions range from 4 to 6 clusters. From 1

to 3 clusters, the AIC is naturally high since if the number of clusters is too low, almost no information can be retrieved in terms of the similarity between countries. Contrary, solutions with more than 7 clusters are already far away from the optimal point once forcing a higher number of clusters damages the analysis. After a prudent analysis of the optimal solutions (4 clusters vs 5 clusters vs 6 clusters), it was decided that the 6 clusters' solution would be a better representation of the differences between nations, once the 5 clusters' solution was still limited as it was still grouping countries which were too divergent in terms of features (Appendix 21).

2.4 Combination between cluster and ranking analysis

In order to obtain the best possible markets for *Pontual*'s internationalization process a combination between the cluster and ranking analysis was used given that both methods have some limitations. For instance, the country clustering only groups countries according to a set of specific macro factors, not being possible to detect the best countries within the same cluster. Although the country ranking already allows for comparison between countries, it does not evaluate the proximity between countries, so a country with a high rank might be on a single cluster, being structurally different from most countries.

Therefore, after ranking the 100 countries, a single cluster with 13 nations was chosen to serve as a basis for the choice of the countries. That way it was assured that the markets selected simultaneously had a high score for relevant indicators and yield similar characteristics.

2.5 Selection of the highest five potential markets

With the combination of the country clustering and country ranking analysis, and after a meeting with *Pontual*'s management team, most countries with the most potential are those included within cluster 6 and ranked within the top 20, apart from the United Kingdom which is not in cluster 6 (Appendix 22).

After a careful deliberation, the rejection of countries such as Japan, Republic of Korea, and Israel (place in 6^{th}, $18^{th,}$ and 16^{th} respectively) was determined due to cultural differences in

comparison with Portugal, which might pose some challenges to *Pontual,* when entering the software market. Since the Nordic countries - Sweden, Finland, Denmark, and Norway (place in 1st, 3rd, 8th and 9th respectively) - are very similar politically, economically and socially, only Sweden will be considered for the in-depth analysis, given that it ranks first in the country ranking, thus being the most attractive market for the company's expansion among all the available countries. Within Central Europe, Germany was considered an attractive option (places in 5th) since it is one of the largest European software markets, consequently forcing the rejection of countries such as Austria and Belgium which not only ranked poorly in comparison to Germany (rank 17th and 19th respectively) but also display several similarities with the German market.

Switzerland as the world's strongest innovation leader (IGE 2020), a very positive indicator within the technology sector, presents itself as an appealing option within the top 5 countries (ranks 4th). France, despite ranking in last of the top 20 countries, was considered for the analysis due to a special request from the *Pontual*'s management team. The United Kingdom, which was attractive enough to be placed within the top 20 (places in 12th), was placed in a different cluster due to a different performance in the proposed indicators. It was also a special request from the *Pontual*'s management team.

Finally, and considering the aforementioned reasons, the five chosen countries are: Sweden, United Kingdom, France, Germany, and Switzerland.

2.6 In-depth market analysis of the United Kingdom

2.6.1 Country Overview

The United Kingdom market was chosen to be further analyzed on four distinct dimensions (Contacts, Competition, Sales Potential and Entry Conditions). Even though it was out of the top 10 in the country ranking (12th position), the UK was selected because it suits *Pontual's* international strategy of entering markets where it can get promising contacts. A PESTLE

analysis was conducted to explore country specific factors that affect this market research (Appendix 23). The political situation in the UK is currently stable. Economically, according to OECD, the UK's GDP should return to pre-pandemic levels in 2022 (2 381 trillion dollars in 2019 according to World Bank) which reflets the role of vaccination in the economic recovery (Walker 2021). Socially, the UK had a population of 67,22 million people in 2020 and a highly educated workforce (Stratis 2021). The government is committed to promoting diversity and equality (GOV.UK, n.d.). Technologically, UK is the 10th best economy in the Network Readiness Index (Knoema 2021) which compares countries according to four dimensions: Technology, People, Governance, and Impact (Appendix 24). Legally, UK has developed patent laws but can improve cybersecurity (NCSI 2020). Environmentally, the UK is the first G20 country to mandate large business to disclose climate risks (Segal 2021).

2.6.2 Contacts

There are several players that can help *Pontual* entering the UK market and for that reason contacts' identification is crucial to make the internationalization process smother.

Governmental agencies are essential in conveying tips and helping to establish the first partners in the UK. Brexit demands bureaucratical advising for companies that aim to run operations in the UK and this source of organizations are helpful and trustful. *Department for International Trade (DIT)*: Governmental agency that aims to promote and finance international trade and investment (GOV.UK, n.d.). *The British Chamber of Commerce:* Helps firms establishing contacts and building relationships with potential customers and partners through its unique network (British Chambers of Commerce, n.d.). *Innovate UK*: Connects businesses to potential partners, customers, and investors (GOV.UK, n.d.). *Embassies*: Crucial on giving insights on starting a business in the UK and providing guidance regarding Brexit.

Other organizations and associations are also crucial in helping small firms. These entities acknowledge that new and foreign companies bring innovation and create value for the country.

The Business Application Software Developers Association (BASDA): Gives support for the software industry in the relationship between companies and the government and policy makers regarding tax affairs in the software industry, Brexit implications, payments, and data security (BASDA, n.d.). *The UK's technology trade association (techUK)*: TechUK creates a network for innovation and collaboration across technological businesses and other entities to ensure the UK is the best place for technology companies to locate (TechUK, n.d.). Universities are naturally part of the innovation process of countries, due to its wide range of contacts and funds for research. *The University of Nottingham* has a local business network (Ingenuity Gateway) targeted at helping SMEs. *Lancaster University* and *The University of Cumbria* have a £6 million funding boost program focused on helping SMEs to commercialize new products and services (Robinson 2021).

The software ecosystem is built on partnerships and the decision of internationalizing must always be backed up by an idea of which partners to consider. *Oakley Capital:* Private equity investment fund that bough the Portuguese Software House Primavera Software. *Pontual* stated that this partner is one of the reasons why the UK should be subjected to this in-depth analysis since *Pontual* represents Primavera Software in Portugal. The company can take advantage of this relationship to find other software developers owned by to partner with before entering the market. Companies like Daisy and Host Europe are examples of potential partners that can be a good fit for *Pontual* (Oakley Capital, n.d.). *Sage group*: British Software-House that develops and distributes software solutions for small and medium enterprises. *Pontual* represents Sage in the Portuguese market and can attempt to establish partnerships in the UK market to sell add-ons to Sage software in specific markets in which *Pontual* has the know-how (Bloomberg 2021). *Myerson Solicitors*: Partner with deep knowledge of the UK software market. Able to advice on legal matters and to protect *Pontual's* Intellectual Property (Myerson Solicitors, n.d.).

2.6.3 Competition

Main Competitors

The data to analyze the competitive landscape of *Pontual* in the United Kingdom was mainly retrieved from Orbis with criterions that match *Pontual's* available information in the same platform: UK based medium or small sized companies with an operating revenue between one and eight million dollars operating in the retail sale of software (Appendix 25). To complement Orbis analysis, the website Clutch was used to find more custom software development companies whose services are similar to *Pontual's* (Clutch 2021). Appendix 26 provides extra details regarding the twelve identified competitors and a brief activity description of the two main competitors was performed to strengthen the analysis.

- *Core:* British software developer whose main goal is to solve business problems, reduce costs, increase efficiency, and help each client reaching their organizational objectives through tailor made software solutions. Core is very similar to *Pontual* once 50% of its available services are custom software development and 30% of its activity is delivered for governmental entities[5] (Core, n.d.).
- *Blue Wren:* Considered as a main competitor due to business model similarities. The company creates bespoke software solutions. Its software solutions contain sales and order processing, inventory and production management and CRM. Delivers cost-effective unique solutions (Blue Wren, n.d.).

Strategic Group Analysis

Pontual's competitors were mapped according to two dimensions: **Service Focus and Sector Range.** Service Focus represents the fraction of custom software development in a company's portfolio taking all service lines into consideration. The Sector Range represents the assortment of industries that each company targets and analyses if a given competitor opts for specializing

[5] *Pontual* also has a set of software solutions for the notary industry.

its products towards specific industries. Price was not considered a variable once estimating costs is challenging in this industry and software clients usually struggle when defining a budget for these services (Buchegger 2014). In UK's competitive landscape map, it is possible to distinguish three different clusters (Appendix 27). The first cluster includes *Core* and *Pontual*. The custom software development is their higher priority, and these companies try to specialize in specific industries to improve market knowledge rather than developing broad solutions that could be used across several industries. The second cluster includes most of the analyzed companies. The service focus of these companies in software development is medium (between 20% and 30%) but customers may decide to buy software solutions from these competitors based on their recognition in other service lines. The third cluster includes companies like *Unily* and *EitBiz*, targeting more than 10 industries, and are more focused than *Pontual* on developing broader solutions that can be integrated in several companies. *Auvik*[6] and *Geomant*[7] are outliers in the analysis but can also offer substitute services to *Pontual* solutions.

Comparative Analysis

The two main competitors were analyzed in more detail in a comparative analysis with the purpose of evaluating its strengths and weaknesses (Appendix 28). Although *Pontual* can count with experienced software teams and sounded partners the company has little international experience. *Core* is the only competitor in the same cluster as *Pontual* and its solutions are verified by governmental agencies. Although not in the same cluster, *Blue Wren* and *Pontual* have a similar business model and the company has a high notoriety in many other IT services which attracts more customers to its bespoke software solutions. *Pontual* must improve its main weaknesses while taking advantage of its strengths to overcome competition.

[6] The service focus is 0% once the company does not develop custom software solutions. However, Auvik is a networking management and monitoring software.
[7] Geomant is another "outlier" because this company is very focused in communication software solutions

2.6.4 Overall Sales Potential

Market sales potential

The UK accounts for 16,3% of the European software market (second biggest software market in Europe) (Marketline 2021) (Appendix 29). According to Statista, the British software market revenue reached 23 billion euros in 2020 (Appendix 30) and the **ERP Software market** declined by 2,8% in the same year, reaching a value of **1 693 million euros** (Appendix 31). The Covid-19 pandemic was the reason why this industry took a step back in terms of growth. Enterprise Software is the market in which *Pontual* operates with ERP solutions and it accounted for 39% of the total software market in this country in 2020 according to Statista (Appendix 32). Within the enterprise market, *Pontual* operates in a specific already mentioned Enterprise Resource Planning software market. In terms of forecasting, the United Kingdom software market is expected to have a value of 30,6 billion euros by 2025 and the **ERP software** a value of **2 329,9 million euros**, growing at a CAGR of 6,59% between 2020 and 2025.

Company Sales Potential

As stated before, the revenue forecast for 2025 of the ERP market revenue in the UK accounted for **2 329,9 million euros**. To compute the company sales potential, this value was then multiplied by the expected market share of *Pontual* in 2025 (first year operating in the British ERP software market according to *Pontual* projections). The market share calculation was based on a comparison between the Portuguese and the British market, using the market share of *Pontual* in the Portuguese ERP market as a starting point, which is 6,46% (Appendix 33). With this number in mind, positive and negative impacts of operating in the UK were weighed assuming that the five factors affecting the market entry were: market size and level of competition, number of enterprises having ERP (Appendix 34), *Pontual*'s reputation and Brexit influence on business (Appendix 35). Factors were weighted which resulted in a final estimation **of 0,0314%** and a sales potential of **0,732 million euros** in 2025 (Appendix 36).

2.6.5 Market Entry Conditions

Establishment and Regulations

Foreign companies that wish to set up a business/start operating in the UK can get help from the Department of International Trade. This entity can help *Pontual* getting information about how the UK market works, analyze market opportunities, and give access to business networks. The main forms of entering the market are through setting an establishment in the UK, opening a branch or subsidiary in the UK, business partnership, licensing or franchising model, joint ventures and using an agent or distributor. The website GOV.UK provides a step-by-step guide on how to start a business in the UK (Appendix 37). Nonetheless, this process is extremely challenging due to the high restrictions associated with visa applications (Appendix 38). Foreign companies can open a branch or subsidiary and rules are also available in the country's official website (Appendix 39). In the UK, service providers like *Pontual* are subjected to rules stated in the Provision of Services Regulations 2009 directive which aims to protect businesses by assuring competent authorities provide adequate supervision. The Department of Business, Energy & Industrial Strategy created a guide to clarify all the bureaucratic processes but also to explain practical procedures such as what information should be available for the end-customer, to suppliers and how to deal with complaints (GOV.UK 2021).

Taxation System

Currently, the corporation tax rate for a company's profits totals 19% and there is no taxation on dividends for the shareholders. The value added tax (VAT) rate for software services is 20% (standard rate). There are specific steps any corporation should follow to pay and report taxes correctly. First, companies are obligated to be registered in the HM Revenue and Customs (HMRC), UK's tax, payments, and customs authority. A firm must also keep accounting records and prepare a Company Tax Return to figure out how much Corporation Tax to pay. There is also the obligation to pay corporation tax or report if there is nothing to pay by the

deadline - usually 9 months and 1 day after the end of the "accounting period". Lastly, companies need to file a tax return by the deadline (12 months after the end of the period) (GOV.UK, n.d.).

Intellectual Property

Pontual must contact the Intellectual Property office to have the right content protection (either for software or techniques). Companies get some types of protection automatically, but others demand an application process. *Pontual* may also find beneficial to the abovementioned reach Myerson Solicitors to make the "legal journey" together with specialists (GOV.UK, n.d.).

Brexit influence on business

The software market is not immune to Brexit. Major challenges are related with the visa application, General Data Protection Regulation compliance and the regulation of professional qualifications. *Pontual* is not advised to set-up a new business in the UK due to the above-mentioned clarification on the visa applications. Regarding GDPR compliance, all the bureaucratic procedures must be done accordingly to the new legislation (GOV.UK n.d.).

2.6.6 Final Considerations

The fierce competition in the UK, the Brexit implications but also the lack of experience are critical points that *Pontual* would face. If entering the UK market, it is crucial the company defines the degree of commitment to avoid rushing into unrealistic entry strategies. It is advised that *Pontual* opts for a smoother approach (such as low-control strategies). The existence of potential contacts trough Oakley Capital group is the main source of advantage against other countries which is also in line with *Pontual's* internationalization strategy.

2.7 Selection of target market

After carefully analyzing the five selected markets, each dimension was weighted in order to evaluate the best market to entry. Competition was considered the most crucial dimension (35% weight) since the software industry is highly competitive and companies seek partners in which

they can trust for a long-term relationship, making it harder to find potential clients in a new market where there are a lot of firms already established.

The company sales potential is also fundamental for the final decision as it provides a better insight on how much revenue the company can earn in that market which is vital for the company's survival. As a result, a weight of 30% was considered. After careful examination, the contacts (20% weight) were considered slightly more relevant to the assessment of the country than the market entry conditions (15% weight). This decision was based on the fact that most entry constraints found could be surpassed with research and planning, while contacts represent an essential asset to build reputation and find potential clients.

The assessment demonstrated that choosing the United Kingdom was the logical decision given the potential of the ERP software market in this country, which is yet to explore. Moreover, and besides the market potential, Pontual's CEO and managers believe the United Kingdom is the obvious decision taking into consideration that the company can benefit from the previously mentioned contacts (Appendix 40).

3 International Entry Strategy

3.1 Selection criteria

"The choice of the correct entry mode for a particular foreign market is one of the most critical decisions for firms in international marketing" (Andersen 1997, 28). The outcome of this investigation will be the result of a comprehensive analysis that will include external factors that address the UK market, *Pontual*'s internal factors, transaction specific factors to the software industry and the company's desired-mode characteristics, having always in mind that internationalization is "the process of adapting firm's operations (strategy, structure, resources, etc.) to international environments" (Andersen 1997, 29).

External Factors

There are several external factors that must be considered when making the decision of which internationalization mode to pursue. These factors address the foreign market in several dimensions that will shape *Pontual*'s market approach.

- *Sociocultural distance*: English is the world's reference language and *Pontual* has the necessary resources to overcome this main sociocultural factor.
- *Demand uncertainty*: The estimated potential demand (see **above**) represents a challenge for the company. However, *Pontual* can overcome the small market share by defining a low control strategy while also finding British agents to help them penetrate the market.
- *Market size and growth*: The software market is expected to grow at a fast pace until 2025 due to the entrance of new players (Marketline 2021). *Pontual* will be continuously challenged by already existent companies as well as new entrants that bring innovation and fresh solutions.
- *Trade barriers*: Geographical barriers are almost inexistent in this industry, but Brexit complicates the easiness of operating in the UK due to the uncertain environment around new regulations. Some foreign companies based in the UK are already moving out due to the increasingly complex bureaucratic procedures.
- *Intensity of competition*: UK is the second biggest software market in Europe which makes it difficult for *Pontual* to create its own demand, without any market knowledge.
- *Number of relevant intermediaries*: Considering the exporting of software development services, *Pontual* can either consider having no intermediaries (selling directly to final clients) or arrange middle players (software developers established in the British market) to whom to sell specific solutions that would then be further commercialized to final clients. The UK market is challenging for new entrants like *Pontual* and for that reason, every connection that may lead to business opportunities must be considered. *Pontual* is already connected with the brand Primavera, which is owned by Oakley Capital, a private equity investment group that owns

several other technological companies. This group can help the company find relevant middle players who can potentially be *Pontual*'s agents in the British market.

To sum up, the external factors analysis clearly foresees several limitations of pursuing High-Control Strategies for the British market. However, a deeper analysis on the Internal Factors must be conducted to verify if this speculation holds true.

Internal Factors

These factors give an idea of the firm's capacity to pursue its international aspirations.

- *Company Size*: *Pontual* is a medium size enterprise as it has a team of around 100 collaborators and in 2020 it had an Operating Revenue of 4,87 million euros (Orbis, n.d.).
- *International Experience*: The firm has some international experience, with current presence in Spain, Macau and previous presence in Brazil. Nevertheless, those internationalization processes were challenging due to cultural differences.
- *Product Complexity*: Generally, there are services within the Software industry that are more complex than the ones that *Pontual* provides. However, the company aims at implementing the customization level required by its clients.
- *Competitive Strategy*: *Pontual* is focused on differentiation, through high customization of software development. This may, however, be insufficient in a market as competitive as the UK's Software Industry.

These internal factors also give us an indication of limitations of pursuing High-Control and High-Risk strategies, especially given the fact that *Pontual* is a medium size enterprise.

Transaction-Specific Factors

- *Tacit nature of know-how*: the know-how of *Pontual* and the services provided are not difficult to transfer or explain to an independent partner. In fact, one of the company's intentions when exploring a new market is to engage with an independent company that can function as an agent, which requires transferring know-how.

- *Opportunistic Behavior*: it is very unlikely that an independent agent will show opportunistic behavior since the service offered by *Pontual* does not contain a secretive facet associated. As already mentioned, it is a highly advised and advantageous move for *Pontual* to engage with an independent partner.

Desired mode characteristics

- *Control*: In the case *Pontual* uses an agent, the control of the operation would have to be low or medium-levelled since intermediaries would play a big part in securing a more efficient entry in the UK market, through their connections, clients, and know-how.
- *Risk*: Acknowledging that this would be *Pontual*'s first experience in a country in which they don't have any specific contact (although *Oakley Capital* can become a potential partner), would lead the risk of the operation to be high. This was not the case in previous international experience, in which they had crucial contacts (the business unit in Brazil was established alongside with a Brazilian veterinarian who had two clinics in Brazil; in Macau the firm associated with a tech company with expertise in the hardware sector; and in Spain there was a specific partner working with various sectors). This drives *Pontual* to have higher risk aversion due to the unfamiliar circumstance of the operation, which in turn motivates the company to enter the market using a lower risk strategy.
- *Flexibility*: Given the previously stated, *Pontual*'s flexibility would have to be high. That way in case the operation faces complications, the firm could adapt or change its strategy effectively and accordingly.

A graphical analysis of these characteristics can be found in Appendix 41.

3.2 Analysis of alternative entry modes

According to the Hierarchical Model, modes of entry have been modeled and based on the different resource commitment levels, exposure to risk, control, and profit potential (Chu and

Anderson 1992). Entry mode selection can be studied from a hierarchical perspective (Kumar and Subramaniam 1997).

The first degree of hierarchy opposes equity and non-equity entry modes. These two types of market entry modes are distinguishable on whether there is equity investment (Kumar and Subramaniam 1997). The equity modes entail a significant resource commitment in an overseas location and an actual investment to set up the independent firm. This category includes Wholly Owned Operations (through FDI: Greenfield; Mergers & Acquisitions) and Equity Joint Ventures. Alternatively, non-equity modes do not require the establishment of independent operations on the foreign country, thus differing greatly from the equity modes when it comes to resource commitment and risk. This category includes Exporting (Direct Exporting; Indirect Exporting; Company-owned Foreign Subsidiary) and Contractual Agreements (such as Licensing; Franchising and Alliances).

As already mentioned, the equity modes require the establishment of an overseas independent firm, which in turn will lead to a higher level of resource commitment and higher risk. These are characteristics that are not suitable for *Pontual*, given that it is more feasible for them to move towards less risky entry modes, as the selection criteria analysis demonstrated, even if that translates in lower control of the operations.

The non-equity modes are characterized by representing a lower level of resource commitment and lower risk for the firm, as there is no investment to set up an independent establishment. Given what was analyzed in the selection criteria and adding the fact that *Pontual*'s budget for internationalization is limited, the entry modes that belong to this category will be the most feasible for *Pontual*.

Since neither Licensing nor Franchising respond to *Pontual*'s objectives, these will be briefly analyzed, alongside with non-equity Strategic Alliance, and, posteriorly, a deeper analysis of the three Export intermediation options will be computed.

A licensing agreement is the grant by the owner (licensor) of some property right to another party (licensee) to use such right in some limited capacity (Price 1999). In case of an international licensing agreement, the parties are two firms from different countries. This does not match *Pontual*'s objectives for this operation since it would imply the loss of control of their intellectual property, which is something that they strongly value, as it is identified as a differentiative factor. *Pontual* would also be forced to trust in the licensee's ability to generate income and grow the business, which is a major disadvantage of this mode of entry.

Franchising is a distribution system that groups retailers which sell products or provide services that have a similar image and a standard format developed by the franchisor (O'Connor 2014). Similarly, to licensing, this doesn't match *Pontual*'s goals when it comes to an international operation in the UK. Maintaining control over the franchise could be challenging, and therefore, results could turn out to be not ideal.

Organizations form a non-equity Strategic Alliance when they agree to share resources without sharing equity or without forming a distinct entity (Kalia 2019). Although firms' assets can possibly be handled collectively, those assets' ownership still remains divided among all parties (Gomes et al. 2011). Companies must cede some control over how their businesses are managed and perceived, which can lead to failure if partners misrepresent their contributions, do not completely commit to the partnership, or fail to successfully pool their resources. *Pontual* would rather be in control of their foreign operations from Portugal, while having agents that support an effective market entrance, thus a Strategic Alliance is not what *Pontual* is looking for. Moreover, *Pontual* needs a strategy that enables the company to continuously search for new agents or final clients rather than being compromised with a limited number of partners.

A deeper analysis of the three different export intermediation options will be performed once these entry modes are the ones that suit best *Pontual*'s intentions.

Direct Exporting

One of the possible entry strategy methods when opting for an externalization approach is the Direct Exporting. Direct exporting refers to the direct sales to a customer abroad. Maintaining close contacts with the customers and self-undertaking on marketing and sales are the main characteristics of direct exporting (Business.gov, n.d.). There may also be the case that some export functions are handled by contracted intermediaries from the foreign market, such as distributors or sales representatives.

The advantages of direct exporting include more control over the export process, allowing a direct customer contact, which leads to a closer relationship to the overseas buyer and marketplace (Export.gov, n.d.). The elimination of most intermediaries contributes to higher profit margins and independence from partners. It can also offer more control over marketing and more protection for intellectual property. The retrieval of direct feedback is more effective and accurate, promoting more flexibility regarding the whole operation (Delaney 2019).

Contrastingly, the firm must devote more time, personnel, and resources comparatively to indirect exporting, for example. Direct exporting requires dedicated personnel and with great know-how, which could be costly and complicated to achieve for some firms. There is a higher degree of responsibility from every level of the organization, which leads to higher accountability if the operation does not succeed as expected. Additionally, the communication with customers may be ineffective at times in case there is no local agent (Delaney 2019).

For *Pontual*, direct exporting is a suitable strategy to pursue, given that this strategy enables the possibility of having none or one intermediary in the British market. If selling with no intermediaries, solutions would be directly commercialized to end-users. However, some of the export functions can be performed by a foreign intermediary player, which in *Pontual*'s case could start by being technological companies owned by Oakley Capital. The relationship with several agents could enable *Pontual* to penetrate the UK market more effectively and with

deeper know-how from the start of the operation. Furthermore, by opting for this strategy, *Pontual* would be able to receive direct feedback from its clients, allowing the company to continuously improve and upgrade its service.

Indirect Exporting

Indirect exporting is an alternative approach to exporting. The biggest difference between this option and direct exporting is that the company uses a distributor, agent, or an export management company to export its products (Daniels, Radebaugh, and Sullivan 2015). In the case *Pontual* was to pursue this strategy, its software solutions would be sold to an intermediate in the Portuguese market, which would afterwards take care of the logistics and commercialization in the British market.

This alternative mode of exporting enables companies to minimize costs and risks of internationalizing while maximizing the flexibility of stepping back in case the process does not go as planned. At the same time, this strategy is the one that gives companies the lowest possible control over its foreign operations since everything is conducted by the intermediary. This can be seen as the main disadvantage of indirect exporting considering that the company becomes uncappable of making the main strategic and marketing decisions for its own products. On the other hand, this approach is often referred as being almost “stress-free” (Daniels, Radebaugh, and Sullivan 2015).

For *Pontual*, indirect exporting is not the wiser path to follow given that the Software business market needs constant adaptation. *Pontual* should find an intermediary but on the British market: a partner with deep knowledge of the British software market that can incorporate the software solutions developed by *Pontual* in its portfolio and with whom *Pontual* can establish a close relationship. Indirect exporting would not be the perfect fit to *Pontual* seeing that selling a software is not like selling a physical product. A cork exporter for example could be dependent

on a Portuguese intermediary because the product characteristics enables the process to run smoothly without the company needing to improve or having control over its finished products.

Company-Owned foreign subsidiary

Owning a subsidiary in the United Kingdom is, from the three exporting options, the one that brings more responsibility to *Pontual* (OAEC 2020). In this case, *Pontual* and its British branch would be separated legal entities for tax and regulatory purposes, but *Pontual* would have the possibility of having influence over the strategy and principles of the subsidiary. The main advantage of owning a subsidiary is that *Pontual* would be able to provide guidance and support to the operations while also sharing knowledge and resources with its subsidiary without needing an agent or other intermediary player. The main disadvantage is related to the investment needed. It would be extremely difficult for *Pontual* to overplay British competitors with higher levels of market knowledge while at the same time investing in the new subsidiary. For these reasons, this entry mode option could not suit *Pontual* since it can be seen as risky and inflexible (OAEC 2020).

3.3 Entry mode selection

Following an analysis of the various possible entry strategies, it is concluded that establishing a Direct Exporting intermediation is envisioned as the most effective way to penetrate the British market for *Pontual*. By pursuing this strategy, *Pontual* will be able to keep control of the exporting operation, building its own client portfolio while also achieving deeper market knowledge with companies like *Daisy* (who is owned by *Oakley Capital* and specialized in IT and cloud service solutions) or *Host Europe* (a British company owned by the same group and specialized in web-hosting services to SMEs). *Pontual* could start using these contacts to reach clients and new projects in the British market. In exchange, companies like *Daisy* or *Host Europe*, for example, would be able to accept projects in which *Pontual* is able to complement their solutions which specific know-how that this companies might lack.

This mode of entry will minimize risks on the short-term since the commitment will be lower, and the flexibility will be higher. Consequently, and despite the outcome, this could be leveraged by *Pontual* for long-term benefits. If the operation has positive outcomes, the firm could expand its commitment in the UK market with the establishment of a subsidiary in British territory. Alternatively, if it has negative outcomes, the experience will provide know-how for *Pontual*, guiding them for future operations in other countries. Having Brexit into consideration, Direct exporting can be considered not only a conservative but also suitable strategy when compared to other riskier and costly entry modes since for a company owned subsidiary *Pontual* would need to cope with all the bureaucracy of being physically present in the UK and for indirect exporting the company would not be able to be close to British clients. Despite the lower risk that Direct Exporting implies, it is worth mentioning that the internationalization is still significantly risky, given the highly competitive and developed British Software Industry.

4 Marketing Plan

An essential step to successfully enter a new market is to develop a marketing plan. To increase the effectiveness, the plan should be constructed in accordance with the sector in which *Pontual* operates – the software industry.

In this next section, a marketing plan will be drawn for the B2B segment since the company only intends to serve businesses. At the first stage, the marketing objectives will be identified, then the service will be positioned based on the STP (Segmentation, Targeting and Positioning) model, and lastly, a strategy will be thought of based on the Marketing Mix.

4.1 Marketing objectives

When developing a marketing strategy, it is crucial to clearly define the objectives the company wants to achieve. These goals can be both quantitative, such as profits or market share, and qualitative, for instance, reputation or customer satisfaction.

Given that *Pontual Software Solutions* works exclusively with companies, not offering products to individuals, the goals were determined concerning only the B2B segment. Moreover, to be aligned with the company, a meeting was held to understand *Pontual*'s interest in this matter. The objectives achieved result from the joint analysis of the company's wants and needs.

In the short term, *Pontual*'s Chief Operating Officer identified raising brand awareness and increasing its reputation as the main goal due to the necessity of building trust in the new market. They can do so by developing specific campaigns and measuring their success by conducting surveys, looking at website traffic, or analyzing search volume data (Smith 2018).

In the long run, the main purpose is to generate leads because the company is not able to find new clients in the same way it does in Portugal (based on Word of Mouth) as this system requires time to be built in a new market. The firm can leverage several metrics to track its progress such as the total number of leads, the conversion rate (the number of website visitors that convert into a lead), the time of conversion, and the cost per lead (Lead Forensics, n.d.).

In addition, considering that many leads do not become clients, another long-term objective is to gain new customers. To evaluate this, it is important to monitor the number of new companies served, the average cost of acquiring them, and the lead-to-customer conversion rate.

Having these objectives in mind, *Pontual* can create a strong marketing plan that allows the company to establish a solid position in the market, fully exploiting UK's market potential.

4.2 Segmentation

Market segmentation is the practice of grouping prospective consumers into classes based on shared qualities that respond similarly to a marketing action (Tarver 2021). As *Pontual* is a B2B company, segmenting the market means reaching customers who matter the most, who are likely to grow into a durable relation and contribute significantly to the firm's bottom line.

Considering *Pontual*'s B2B business model, firmographic segmentation will be applied to better understand the target market. Firmographics is a method of segmentation that identifies

descriptive characteristics of enterprises that may be used to aggregate individual organizations into relevant market segments (Smith 2013). According to the shared company attributes, *Pontual*'s B2B customers will be categorized by geography, size, industry, and performance:

- *Geography:* Company's location is an important factor to segment the market as companies differentiate across regions depending on the challenges and threats faced. Given all of UK's territory units (Appendix 42) only London, the South East and North West regions will be considered for the segmentation. This decision recalls *Pontual*'s industries of interest, in which the three regions are successful business hubs representing growing opportunities for the company to capture potential clients (Appendix 43 and Appendix 44).
- *Company's size:* The company's size is determined by the number of workers or by the revenue generated. In the UK, the Companies Act of 2006 defines SME for accounting requirements (UCL 2018). Eligibly, companies classify into micro, small, medium, or large-sized (Appendix 45), but, for segmentation purposes, only the last three categories will be considered. Depending on the size, each company holds different resources and capacities for software development - larger companies are typically capable of employing their own software development teams, while for small firms, an integrated system requires unattainable implantation and maintenance costs (KAMBDA 2018). Each type of need reveals which customers will be more perceptive to reach out for a software development firm as *Pontual.*
- *Industry:* The industry refers to the information gathered about an organization's primary activities, and it allows to segment the market into firms that possess a similar line of business (Kenton 2021b). In the UK, all different types of economic activity are grouped under the Standard Industrial Classification (SIC) code system (Rhodes and Foley 2021). From all industries (Appendix 46), only those consistent with *Pontual*'s interests will be studied – Manufacturing; Finance and insurance; and Government, education, health, and defense.

- *Performance:* By measuring a company's performance it is possible to determine at which stage of the life cycle a business is in. For a software development firm it is imperative to address its customers' business progression as their software needs are directly related to their cycle's stage – firms at the growth stage have typically more incentives to find automation solutions to sustain their growth while reducing costs, while mature companies face a decrease of sales which require new technological solutions to drive efficiency (Appendix 47). It is also essential to recall that the business risk is inversely related to the business progression cycle: mature companies are more attractive clients given that they can sustain long-term relations, while growing firms, despite representing good investment opportunities, entail more risk (Appendix 48) (Corporate Finance Institute 2020). Pondering *Pontual*'s best interest, only growing and mature companies will be analyzed to address market segmentation and financial metrics, as sales and profit margins can be used to measure each firm's performance.

Relying on the aforementioned attributes, 54 potential market segments were developed (Appendix 49). This approach will allow *Pontual* to reduce its cost per lead by focusing its efforts solely on the right target audience, which will be further developed in the next section.

4.3 Targeting

Targeting is the secondary stage of a marketing strategy in which the segments previously identified (Appendix 49) are carefully studied to find the most attractive group for the company. Through targeting, the company can attract high-quality leads, differentiate from the competition, and optimize its resources, time, and budget to those customers (Yesbeck 2018).

To find *Pontual*'s ideal customer segment, all 54 segments will be evaluated under a top-of-funnel perspective, to exclude unprofitable and undesirable segments. Segments will be analyzed concerning size, profitability, and reachability criteria and the company's preferences will also be considered.

When looking at geography, London, and the South East and North West regions were selected for segmentation purposes. London is an important business hub where head offices of most of the UK's top companies are hosted (European Commission 2021a). South East is the second-largest regional economy in the UK, after London, with a healthy and growing SME community (European Commission 2021c). Both regions display a very contributive sector profile (Appendix 50, Appendix 51 and Appendix 52) and are the most prominent in potential clients within the company's interest industries. Though, they are also innovation leaders and home to many important tech companies – company's potential competitors. North West is a large and diverse economy that covers clusters of business services. The region's most dominant sector is manufacturing, hosting many global manufacturing firms such as BAE Systems and Unilever (European Commission 2021b). Attending to the region's performance in the tech sector, North West is known as a strong innovator, however not as strong as both London and South East (Appendix 52). Regarding this, North West translates into a good gap where *Pontual* can capture and convert clients without suffering a strong competitive pressure.

Regarding the company's size, the information gathered from *Pontual*'s meetings helped understand that even though the firm can serve small companies, its ambition is to target the mid-sized market. From an industry perspective, Manufacturing; Finance and insurance; and Government, education, health, and defense are the sectors consistent with *Pontual*'s interests. Pondering only mid-market businesses in the North West region, for reasons previously described, manufacturing is the dominant sector followed by financial services (Appendix 50). Finally, in terms of company's performance, growth companies face many organizational changes to mature their processes and adapt them to the fast-growing customer base and product demands, thus being the most eminent clients who typically search for trusted software development partners to support them. This doesn't negate the fact that mature companies may also need software partners to create solutions that can drive more operational efficiency.

However, given their maturity, at this stage, well-established companies have pre-determined outsourcing partners with long-term relationships, making them hard to convert.

Considering previous analysis (Appendix 53), *Pontual*'s ideal segment is – *For all mid-sized companies, operating in the North West England, that are growing and wish to grow further, Pontual Software Solutions is the software development partner that provides the best management software solution for the Manufacturing sector.*

To capture its target clients, the company must first recognize that the customer acquisition lives in the attracting stage, where consumers become readers, visitors and leads (Appendix 54). Thus, the company must develop dedicated customized strategies (Appendix 55).

It is also worth to mention that regardless of the company's ideal segment, since *Pontual* will operate through agents in the British market, it will also be capable of serving small companies that are currently working either on Finance and insurance, or on Government, education, health, and defense sectors. Besides North West, London still represents a region with a handful of potential clients who are looking for new software development partners, despite the intensity of competition and the high number of mature companies present. All the 23 segments represent possible clients for *Pontual*.

4.4 Positioning

Slogan

The slogan is frequently employed to express the brand's key message. As a result, *Pontual*'s slogan should convey the brand's targeted market position as well as the perception customers should have of the company. With the statement "Let's Grow Together" (*Pontual* Software Solutions, n.d.), the company is aiming for it to be a call to action for its customers to engage, by transmitting a positive feeling and a promise of growth.

Perceptual Map

The Perceptual Map is a marketing technique based on consumer perceptions of a product's unique traits, benefits, and pricing (Nunes 2016).

Pontual's perceptual map was elaborated based on customers reviews and internal opinions from employees, in order to measure the company's current perception by the consumes and assess what needs to be improved when entering the new market.

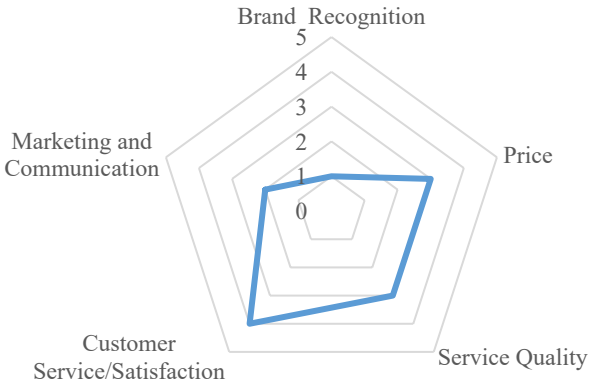


Figure 2: Pontual's Perceptual Map

In Figure 2, the company was evaluated in terms of brand recognition, price, marketing and communication, service quality and customer satisfaction on a scale of 0 to 5 (0 being the lowest score and 5 the highest).

As a result, *Pontual* distinguishes itself in customer service due to its prompt responses to clients' requests, attention to detail, interest in feedback and post service follow-up if needed.

Golden Triangle

The Golden Triangle of Marketing (Lendrevie et al. 2015) allows companies to verify their positioning strategy by assuring it attends to the product's advantages, to the market characteristics and to competition (Figure 3).

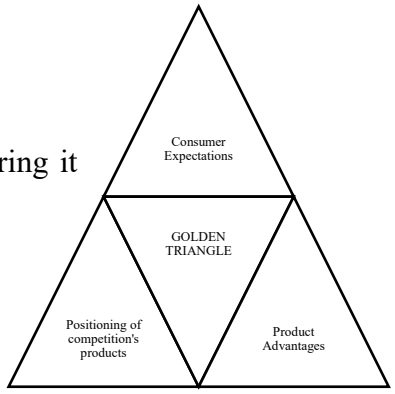


Figure 3: Golden Triangle

Customer expectations are defined as any collection of behaviors that people expect from a company when they engage with it. Consumers have traditionally anticipated fundamental things like good service and fair pricing, but nowadays

the customers have much greater expectations, such as proactive service, tailored interactions, and integrated digital experiences. According to Freshworks Inc. survey findings (Gonzalez 2021), consumers are now more willing to exchange information for a more personalized, faster, and values-driven experience. Now, customers expect service personalization, innovation and data protection - according to 80% of customers, the company's experience is as much valuable as its products and services. To *Pontual*, this translates into the metrics – like feasibility, security, and uptime - where the company will be evaluated by consumers when entering the British market.

Regarding competitive products, UK players' strengths are complexity, efficiency, and expertise. On the other hand, these players lack sensibility when it comes to customer service and interpersonal relationships. Also, most of the players benefit from relatively reduced costs due to economies of scale and cheaper labor force when comparing to the revenues volume.

Finally, *Pontual*'s product advantages are mainly the adaptability of services to customers' needs, the diversity and uniqueness of solutions, as well as their 360º operational component.

Competitive Advantages

By entering the British market, *Pontual* must keep its competitive advantages to succeed and grow sustainably. Competitive advantage refers to the abilities required to outperform competitors, the majority of which are gained via knowledge and information. As a result, businesses must seek out the most cutting-edge technology, tactics, and data (Garfinkle 2013). *Pontual* should embrace new technology and learn to understand it while entering the British market in order to redefine and grow their competitive edge over competitors that reject new operational methods. Additionally, as markets and economies are constantly changing in nowadays' increasingly unstable environment, companies with high adaptability have a distinct advantage and executives can leverage that feature by being open to change. As so, *Pontual* can also invest in cross-training to bring new and up-to-date skills to the table.

Positioning Map

The Positioning Map compares *Pontual* with its competitors in the British market (Appendix 27). As a complementary assessment, it is relevant to place *Pontual* in the BCG Matrix (Figure 4), as it is entering a new market.

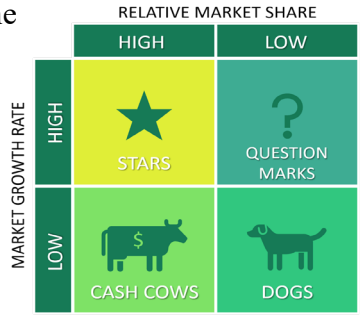


Figure 4: BCG Matrix

Pontual presents a relative market share in the UK market of 0,0314% and a company sales potential of 732 thousand euros, a relatively low score when compared to other players in the same industry. When it comes to market growth rate, the British ERP industry presents a CAGR 2020-2025 of 6,59%, which is higher than the Portuguese ERP industry growth rate (CAGR 2020-2025 of 4,23%). Consequently, *Pontual* fits in the Question Mark category (low market share but in a high growth market), which translates into the possibility of an increasing future market share and dominating the market.

The launch of *Pontual* in the British market is part of a long-term growth strategy, and at the growth stage, product penetration is still low because many customers have yet to acquire or use the company's services. The acquisition of new clients and repeat purchases should be the key sources of growth in this circumstance.

As a Question Market, improving the market position will be more exhausting for *Pontual*, as a low market share means that dominating the market will be more difficult. *Pontual* should increase advertising spending to promote sales as a successful marketing strategy since it raises awareness of the company's products and reaches more prospective consumers. In order to attract more price-conscious customers, setting relatively cheap prices through penetration pricing could be a tactic to explore.

In terms of product, *Pontual* could improve product features in order to be an adaptive company that matches its consumers dynamic tastes and preferences. Finally, improving product quality and providing additional support services can add more value to the company's offering.

Positioning statement

The Positioning Statement should describe why customers should use *Pontual*'s services over its competitors'. Since proper positioning may influence market share gains and profitability, *Pontual* should be prepared to adjust its positioning statement as the business climate evolves. Summing up, the company's current positioning statement is: *with 27+ years of experience in custom software and 360º solutions, Pontual Software Solutions is the software development partner that delivers the best management software solutions to all mid-sized companies in a growing stage, operating in North West England, that wish to increase their level of automation and operational efficiency.*

Value proposition

As the positioning analysis conclusion, the Value Proposition describes the functional and emotional benefits of *Pontual* and of its brand. While functional advantages are associated with specific product characteristics, emotional benefits are associated with positive sentiments that customers have after utilizing a company's products and services. As a result, value propositions are all about persuading clients that they are receiving a good deal.

The value proposed by *Pontual Software Solutions* relies on the fact that it is the software development partner that helps mid-sized companies that are growing and yet facing business challenges. The support the company provides comes from customized software solutions that solve operational issues, create business efficiency, and drive further productivity.

In terms of differentiation, the firm focuses on its core strength - the service. The company stands out due to the ordering ease of its services, customer training and consulting and delivery of final products. Moreover, *Pontual* distinguishes itself both in its relationships with clients

and partners, by offering competence and credibility, and in reputation since the firm's advertising and communication results in a positive perception from stakeholders. Finally, in terms of product, *Pontual* aims for the best performance and efficacy to acquire its customers' loyalty and trust.

4.5 Marketing Mix

The Services Marketing Mix consists of a collection of methods that a firm may employ to market and convince potential clients to acquire their service. The model is an expansion of the Product Marketing Mix (Product, Price, Promotion, and Place), to which three additional techniques (People, Physical Evidence, and Process) must be introduced in order to correctly capture market possibilities and promote services (EPM, n.d.).

A strong marketing mix aids in the design of a successful product offering, in the planning, development, and implementation of effective marketing strategies, and encourages firms to leverage their strengths to save unnecessary costs (Athuraliya 2021).

Product

Product is one of the key components in the marketing mix since it delivers the most significant value to the client and is the main purpose of marketing efforts. Even the best attempts to promote, place and price the goods competitively will almost certainly end in failure unless the product has the proper characteristics to attract customers (Tatum 2021).

Pontual, as a software development company, is a trusted management software (ERP) distributor for each market sector. The company either acts as an intermediary for Software Houses, counting on strong partnerships such as Primavera, Sage, PHC, and Eticadata (Appendix 5), or offers its own software management solutions by producing complements (Add-ons) to existing ERP solutions that correspond to the specific needs of a client or sector of activity. When it comes to products, *Pontual* has a wide and varied portfolio (Appendix 6) which is based on software that covers different business areas.

Concerning the UK as target market, the product mix shall capture mid-sized enterprises currently operating in either Manufacturing; Finance and insurance; or Government, education, health, and defense that wish to increase efficiency and productivity within their organizations. In the end, it is recommended that the firm keeps its product portfolio stable at the beginning of operations. As an entrant, *Pontual* must leverage its strengths by displaying its main products to identify the ones that perform better and those that need to be adapted to market needs.

Price

One fundamental element of the marketing mix is the price, as it "is not only one of the key factors in a competitive situation, which directly affects the company's sales and profitability indicators, but also one of the most flexible marketing mix elements, which can quickly adapt to environmental changes" (Išoraitė 2016, 30).

For its software solutions, *Pontual* charges a rate per hour instead of a fixed price for the service and in Portugal the company's base rate is 45€ per hour. After discussing this topic with *Pontual*'s COO, it became clear that the company has high costs with its personnel, so it has to charge a price that allows them to have a margin on these expenses.

There are two alternative pricing strategies the company might consider implementing: rate-based pricing and project-based pricing. The former is already used in the Portuguese market and can be applied in hourly or daily rates. Despite being common in this industry, "some clients are hesitant to honor this pricing strategy as it can reward labor instead of efficiency" (Decker 2021). The latter consists of charging a fixed fee for the entire project, which usually results in higher investments for the companies. Even though the price might be superior, with this option clients have the assurance that the company will work with them until the project is complete.

Based on the assessment of both alternatives, *Pontual* should enter the UK market using a rate-based strategy. The reason behind this selection relates to the unpredictable nature of projects

since some might be more time-consuming than initially expected, thus resulting in higher costs for the company. Charging an hourly rate allows the company to act on this variability.

Promotion

Promotion is a great tool to "disseminate information, encourage the purchase and affect the purchase decision process" (Išoraitė 2016, 33). Thus, this element is essential to reach *Pontual*'s objectives as it helps to raise brand awareness and generate leads that might become Paying Customers.

The Covid-19 pandemic accelerated the digitalization of businesses (LaBerge et al. 2020) so much that companies not following the adoption of technology are likely to stay behind its competitors. Bearing this in mind, *Pontual* should focus on digital instead of traditional marketing which is not only more cost efficient but also more engaging as it allows for interaction with the audience.

Even though the firm already has a presence in some social media platforms such as LinkedIn and Facebook, it still has space to improve. Some actions include creating new LinkedIn and Facebook accounts specifically for the UK; taking advantage of the potential of other platforms like Instagram and Twitter, where it still has no presence; preparing posts related with current events and engaging with its audience by replying or reacting to comments.

Moreover, the company should also invest on digital advertising preparing specific online campaigns which can be announced in social media platforms, using Display Ads or buying ad impressions (for example, buy keywords on Google). The website should be upgraded in order to be provided in the English language, thus being adapted to the entrance in the British market.

It is important to emphasize that to achieve its objectives the company should allocate a team to manage the social media platforms and to develop the marketing campaigns. This team should also be responsible for establishing Key Performance Indicators (KPIs) and measuring them in order to understand the impact of the strategy, thus adapting it accordingly.

Place

The part of the marketing mix that guarantees that the product is distributed and made easily accessible to the consumer is known as place. It involves every distribution channel that is both suitable for the company's business model and accessible to the target audience. Whenever clients face product unavailability, they usually turn to the competition, thus it is crucial for a firm to make the product offerings available at the right time and place. Services production is directly connected with its consumption. Consequently, there is an opportunity for tailoring the offering to meet customers' needs, making the actual encounter very significant (Išoraitė 2016). Concerning the UK market, *Pontual* must adapt its distribution strategy to its recommended promotion tactics - previously mentioned – as the firm's business transforms every opportunity of product advertising into product selling. Entering a new market, the firm will experience low brand awareness so an investment in digital advertising is required.

Distributors may also play an important role when a newcomer is adjusting to a new market as they not only provide knowledge and expertise but also secure an effective channel that gives immediate access to the target market. Potential business partners as, for example, *Myerson Solicitors,* were already identified in the UK's in-depth analysis – see **Contacts**.

Finally, *Pontual*'s official website is a traditional meeting point for clients to not only get access to more information on the company but also to establish contact through email, a phone call to ask for any clarification on *Pontual*'s offering, or even to place an order through the support area. It is essential to reinforce the importance of upgrading the website in order for it to be provided in the English language.

People

When it comes to services, People is a key component of the marketing mix. This element includes anyone directly or indirectly involved in the service (Ivy 2008). In *Pontual*'s case, the

major impact of people is in customer service, which results in good referrals from clients and positive word-of-mouth recommendations.

Moreover, not only human interactions are important. *Pontual* provides a type of chatbot service in its website where potential customers and clients can always reach out in case of doubts or need for assistance. This helps *Pontual*'s team to complement its customer support efforts in an inexpensive and simple way.

When entering the British market, *Pontual* must make sure it retains its strength in these features by empowering its employees through the validation of new ideas and instigation of innovation in all areas of business, including customer experience. Additionally, using tech to create breakthrough customer experiences should be easy and accessible for the company - it would be interesting if *Pontual* had a system which could run through the customer data and match new services and products' offering with past customer's profiles, to then notify them with new offers, consequently maintaining the customer relationships alive.

Also, it is essential that everyone who represents *Pontual* - or deals with customers - is properly trained with an intimate knowledge of the services and products and has the ability to solve customers' problems.

Processes

Service delivery must guarantee that clients get the same level of quality in every service. Most businesses have a specific plan that standardizes their processes, although some only set key parameters to adapt to the operational environment if needed. The delivery process should be as efficient and reliable as possible, but it can also incorporate elements consistent with the company's brand, such as values and beliefs (Ivy 2008).

Pontual's sales process develops as following: a first contact is made by the client, normally through a designed tab in the company's website, by email, telephone, or social media; posteriorly, the client's team takes care of communication and discusses the service request

with the client (gathering a description of it). Then, *Pontual* provides a first proposition with solutions that fit the client's needs and proceeds to implement them if both parts agree; finally, after the delivery of the service is done, a follow-up support and feedback is offered from both parts, as well as a revision, if needed.

When entering the UK market, *Pontual* should stick with this simple method to improve efficiency and to facilitate the communication, operations and logistics of the service delivery.

Physical Evidence

Physical evidence includes elements that confirm the existence of a brand and that a purchase occurred (Ivy 2008). Printed business cards, receipts and follow-up emails are all examples of client retention material. Given that, by nature, services are intangible, most service providers, as a way of improving customer experience, try to have tangible features into their offerings.

Pontual's set of physical evidence includes branding materials such as the logo and merchandise, the company's offices and facilities in Portugal, email signatures, receipts after purchases, social media pages on LinkedIn, Facebook and Youtube (where the company posts daily updates) and the website, which serves as a marketing tool but also as a tool for customers to keep track of their requests (at "*Área de Cliente*").

For the future, *Pontual* should invest in the creation of email newsletters (with weekly updates) to keep its former and current customers aware of new offerings and opportunities.

5 Financial Forecast

5.1 Assumptions

To have a better estimation of the potential of the internationalization process, a financial forecast was performed. This forecast was based on the set of assumptions described below.

Assumption 1 (A1): Revenues

An assumption was made that *Pontual* would enter the UK as a small class software development company, which is a business having a team of 5 to 10 employees allocated to this

market and working with medium-sized regional firms (Jackson, n.d). It will allocate a team of 5 developers/software engineers in the first year to this market. These types of companies can charge hourly prices ranging from 75$ to 125$, an average of 100$ per hour (Jackson, n.d.) which corresponds to around 90€.

Assuming that each developer dedicates 7 hours of each day for projects' developments and software validation and debugging (the remaining 1 hour is for internal team meetings, checking emails, preparing proposals and others), the company would have a maximum of 35 hours per day available for projects. Regarding the annual number of projects, it is limited to the number of hours that the company has available for this purpose per year. Since, generally, developers spend between 35% and 50% of their time working on errors and bugs in software (O'Dell 2017, 1), it was assumed that from the 7 hours per day, their time allocated to projects would be 50% in the first year, increasing by 3% each year due to acquired know-how and growing efficiency until reaching its maximum of 65% by 2030. It was considered that *Pontual* would not charge for the time used for debugging and correcting error and that the company will have projects that fulfill the allocation capacity.

Assumption 2 (A2): Costs

Pontual will be focused on developing customized software solutions and add-ons to the British market. Nonetheless, developers will be working from Portugal, and it was assumed that the only source of COGS (cost of goods sold) will be the salary of the developers/software engineers because these are the direct costs (costs directly related with the production of software) with higher relatively importance. A distinction of job titles was incorporated in the cost estimation computations given that, on average, a mid-career software developer with five to nine years of experience earns 25 902€ per year while a Software engineer with the same experience 29 946€ (Payscale 2021).

Spending in research and development is essential for software companies so that they can innovate to keep up with new market trends. These were assumed to be 10% of each year revenues based on a study from the consultancy firm Oliver Wyman. For SG&A (Selling, general and administrative expenses) it was assumed that only incorporated costs of training employees which was estimated to be, on average, 1 116,11€ per employee (Markovic 2021).

In terms of marketing, *Pontual* does not have an allocated team or a budget for this purpose. When entering the British market, a marketing department responsible for the social media management needs to be created and it is assumed that the only costs incurred in this area are personnel costs. Therefore, only the incremental costs on the tool's usage (digital advertising implementation) and the website monthly maintenance (estimated considering an opportunity cost of 45 euros per hour corresponding to the lost earnings from the time that could have been used in project development) will be accounted as marketing expenses.

Regarding personnel, in addition to the marketing managers (25 434€) it was assumed *Pontual* would hire technical support engineers (32 885€), customer service managers (30 157€) and regional sales managers (46 500€). The average annual salaries presented under brackets were retrieved from the Payscale platform (Payscale 2021).

Assumption 3 (A3): Investment Plan

In terms of equipment, each employee will need a computer and two monitors (one for home and one for the office). Both the computers and the monitors follow a straight-line depreciation with an estimated useful life of 5 years (TribunaNet 2012).

Concerning extra initial investments, the company must consider that the new market will require the expansion of the client area and the translation of the website before the beginning of the internationalization process, so these components were also included in the Capital Expenditure (CAPEX). It was assumed that those components would be fully depreciated in 5

years, so in 2029 the company would need to reinvest in the restructuring of the website and client area.

To compute the Investment in Net Working Capital (NWC) it was assumed that for this analysis the company would not have any inventory. In addition, the collection and payable period considered was the average of the past 5 years which would remain constant until 2030.

Assumption 4 (A4): Profit and loss (P&L) statement

For the creation of the P&L, interest expenses were disregarded, and it was assumed that the Portuguese taxes would remain unchanged during the analyzed years.

5.2 Market size and market share estimation

Market size is an indicator that measures the total number of potential buyers for any new business, product, or service, studying the potential revenues that a company can reach in a certain period (Hayes 2021). It is an important part of strategic marketing planning since identifying the target market size allows the company to fully evaluate opportunities and plan the operations' procedure and investments with more precision.

To forecast the UK's market size by 2030, it was assumed that the ERP software market revenues will grow at the same pace as the previous five years – a CAGR of 6,59% (2020-2025), leading to an expected software market value of 3 205 million euros by 2030.

Besides being an important metric to analyze business opportunities, the market size is also useful to determine a company's market share through the comparison of the firm's actual sales with the total size of the market.

To estimate *Pontual*'s market share in the UK for the analyzed years of operations (2025-2030), it is necessary to compare the company's estimated revenues with the ERP software market revenues previously forecasted. It is worth mentioning that *Pontual* will not be able to perform at the maximum company sales potential computed in the United Kingdom in-depth analysis since as a new entrant in the market, it suffers from time management inefficiencies in

comparison to its main competitors (A1). Market share estimations for the project' years can be found below.

Market Size Estimation

	2025	2026	2027	2028	2029	2030
ERP Software Market Revenues UK	2 329 900 000	2483440410	2647099133	2821542966	3007482647	3205675754

Market Share Estimation

	2025	2026	2027	2028	2029	2030
ERP Software Market Share UK	0,017%	0,023%	0,026%	0,029%	0,032%	0,032%

Table 1: Market Size and Market Share Estimation

5.3 Operational plan

An operational plan is a financial plan that outlines the revenues and expenses over a certain period, relying on the past performance to project the expected company's growth. Like a business plan, a financial operational plan helps managers and potential investors to understand the company's current and future financial situation (Kagan 2020).

To structure an operational plan, it is important to consider both the company's internal expectations and the external factors that can affect the trajectory and follow-through of the plan – market changes, fluctuation of customers' needs, political regulations, etc. (Kagan 2020). In this section, based on the previous assumptions and using the available financial data, an operation plan will be developed to assess the viability of *Pontual*'s internationalization plan.

Revenue estimation

In order for *Pontual* to fully exploit the potential of the UK market it is important that it takes advantage of its know-how in developing custom software for ERP solutions, namely add-ons. According to Mariia Lozhko (2020), an IT research specialist at *Lanars*, the most common ERP software features can be grouped into 6 categories: ERP integrations; Management task automation; Advanced analytics; CRM (customer relationship management) features; Financial management and Process and performance tracking.

Pontual's main focus should be on ERP integrations since it is the segment in which it has more experience. However, the development of add-ons provided them knowledge on finding

solutions for some of the other segments as well, except for Advanced Analytics. Therefore, for the purpose of computing the average number of hours required per project, five out of the six categories were considered (Appendix 56).

Considering the working days of each year, it was possible to compute the maximum number of hours available for projects' development per year. By dividing those by the average number of hours required per project, an estimation of the total number of projects the company could have each year was reached (this number grows from 31 in 2025 to 81 in 2030). To get the annual revenues estimation the number of projects worked per year was multiplied both by the average number of hours per project and by the price charged per hour.

From 2025 to 2030, the revenue is predicted to increase from 387 810€ to 1 013 310€ (Appendix 57), which can be explained by a growing demand, resulting from perceived higher credibility. This is due to the partnerships formed, marketing efforts and consistent investments in R&D.

Cost Estimation

Cost of goods sold are all the direct costs incurred in the production of products and services (Corporate Finance Institute, n.d.). The value of direct costs tends to increase when revenue increases since more resources are required to achieve higher revenues. Following this rationale, the assumed number of workers was forecasted to increase from 2026 onwards to assure *Pontual* would have the necessary number of software developers and engineers to cope with the increased demand. The computation of this metric results from a multiplication between the number of workers and their respective annual salary (Appendix 58).

Regarding *costs of personnel*, the company will need to hire two technical support engineers, one customer service manager, one marketing manager and one regional sales manager in the first year operating in the United Kingdom (Appendix 59). Although these workers are not directly related with the software development itself, they will play a key role in making

Pontual's projects running smoother, with a higher customer support quality (which is one of the features that distinguishes *Pontual* from its competitors).

Marketing costs refer to all expenses that the company incurs to market and sell its products/services and develop and promote its brand. As already analyzed in section 4, *Pontual* relies on social media pages such as LinkedIn, Facebook, and Youtube to increase brand awareness and on its website to advertise the company's offering and to establish contact with clients. Aside from the traditional marketing tools, it was recommended that the company should invest in weekly updated email newsletters to keep former and current customers aware of new opportunities that might be of interest. Thus, when estimating the marketing costs these will be the main expenses taken under consideration.

To determine the expenses on online marketing, the information on the pricing of online advertising per platform provided by an expert company in digital branding (Top Draw 2021) was considered. Attending to *Pontual*'s relative importance of each platform, the estimated cost on digital advertising for the first year is 37 872 € (Appendix 60). Moreover, since the company's website is essential for marketing purposes, it is important to keep the platform up-to-date and fully functional. It is expected that this task takes 8 hours each month to complete, resulting in an estimated website maintenance cost of 4 320 euros in the first year.

Regarding email newsletters, mid-sized companies can expect to spend, on average, between 8 to 885 euros per month, if opting for a self-managed campaign (WebFX 2021). Considering *Pontual*'s needs, the monthly expenditure on email newsletter would be around 750 euros per month, totalizing a cost of 9 000 euros per year.

Summing up, for the first year of operations in the British market, the marketing costs would totalize 51 192 euros, a budget corresponding to 12% of the revenues; for tech companies making 1 to 5 million euros/year in revenues, about half reported spending from 10 000 to 50 000 euros/year on marketing (Lombardi, n.d.), an average budget of 10% of annual revenues.

To forecast the marketing costs evolution, it is assumed that these will increase at the same rate as the increase in revenues, meaning that over the years *Pontual* will have the possibility to reinvest in marketing as it is very crucial to capture clients.

Research and development costs are expenses related with the process of obtaining and acquiring new knowledge for products and services development (Corporate Finance Institute, n.d.). As explained in the assumptions, this cost was calculated as a percentage of revenues and for that reason, it is expected to grow every year from 38 781€ in 2025 to 101 331€ in 2030. *Selling, General & Administrative Expense* refer to all day-to-day costs that are not directly related with the production of goods or services (Beaver 2020). *Pontual* will be operating from Portugal to the United Kingdom and for that reason, the only incremental cost related with the internationalization project is the cost of training employees. The crucial importance of software developers and engineers make this cost indispensable for *Pontual* which, as stated in the assumptions, will be hiring employees with approximately five to nine years of experience and that will need further professional development (Appendix 61).

The forecasted Profit & Loss statement estimates that *Pontual* will only have a positive net income by 2026 (Appendix 62). In terms of taxation, due to the negative earnings before tax, *Pontual* does not pay any taxes in the first year. From 2026 onwards, *Pontual* must pay its taxes but SMEs benefit from a tax mechanism which allows them to pay only 17% for the first 25 000€ of earnings, instead of the standard rate 21% (PWC 2021).

Operational Risk Analysis

Operational risks are threats related to financial losses and negative performance caused by people, processes, or systems (RIM Initiative 2020). Nowadays, the competitive business environment is forcing companies to provide the services faster and with higher quality, since the consumers are more demanding and inflexible in terms of expected quality. Therefore, the disruption of business operations is a serious threat to a company's performance affecting its

strategic objectives and, consequently, businesses' success largely depends on their ability to avoid operational failure and improve efficiency (Jallow et al. 2007).

In this section, the five sets of operational risk – people, process, systems, external events, and legal and compliance risks - related to *Pontual*'s business model will be analyzed to investigate which are the potential threats to the business and how they could be mitigated.

- *People Risks*: Nowadays, due to the high competitiveness in most sectors of activity, the human factor is a main differentiator between companies (Tîrlea, Bãdilã and Kifor 2020). When a company invests in its workforce, it expects to receive some return. However, sometimes this is not the case, as underperformance and human errors are realities in business operations. The Information Technology Intelligence Corp.'s (ITIC) 2018 Global survey identified that 59% of the causes for downtime in the software system is due to incorrect data processing by employees (TechChannel 2018), making human errors a critical threat to a company. When entering the UK, *Pontual* must assess its return on employee investment (ROEI) to identify underperformance issues.
- *Process Risks*: Considering *Pontual*'s business process already described in the Marketing Mix, the major risks identified are related to the possibility of a queue during the process, the limited number of projects due to the workforce availability and the probability of delay on the project delivery. To contact *Pontual*, customers can use several platforms which monitor traffic inflow, so that when traffic overcomes the configurated threshold, the clients are placed in a first-come, first-served online queue. Queue management is important for *Pontual*'s business success because long queues represent a waste of time for clients and have a significant cost for the company, which is translated into missed opportunities, sales loss and damaged reputation (Q-Better, n.d.). In addition, the company's workforce limitation in developing projects poses a threat to *Pontual*, as it is irrelevant to capture more clients if the software development team does not have sufficient time to work with them. Lastly, the possibility of delay in project

delivery leads to a poor customer service experience and might decrease the company's revenues. This risk relates to the software development life cycle, which measures the amount of time from the start of the work until its delivery, and it is important to consider it since longer cycle times indicate inefficiencies in the process and lead to lost clients (LinearB 2018).

- *System Risks*: According to the insight provided by the ITIC 2018 Global Survey, 29% of the causes for downtime in the software system is due to software flaws and inadequate server hardware. Today's technology advancements have increased the reliability of software, server hardware and its underlying components. Despite this, hard drive failures, particularly in aging hardware, remain a persistent cause of server and application crashes. Firms tend to overload their servers by accommodating larger applications without upgrading the hardware, which represents an operational risk (TechChannel, 2018).
- *External Risks*: When it comes to the software sector, data security is a key concern. Given the expanded number of entry points into their systems, servers, applications, and devices, businesses now have a lot more vulnerabilities to monitor and manage. The ITIC 2018 Global Survey (TechChannel 2018) revealed that 51% of unplanned downtime in the software system is caused by security breaches, making it a major operational apprehension.
- *Legal and Compliance Risks*: Aligned with data privacy and security breaches, there are many regulations that all companies operating in the tech sector must comply with, such as the UK Data Protection Act 1998 and the1995 EU Data Protection Directive. It is crucial to comply with the regulations enforced since non-compliance not only can translate into costs for the company (fines), but it also jeopardizes customers' and employees' sensitive information.

Aside from these risks, there are other potential threats, related to the internal and external operational environment, that the company must considered (Appendix 63). Furthermore, to mitigate the risks mentioned, some solutions include employee recognition and training, keeping the systems fully up-to-date, increasing the website capacity, and establishing SMART

objectives (Specific, Measurable, Attainable, Realistic and Time-Bound), a useful approach for a firm to attain its desired outcomes (Ogbeiwi 2017). All the mitigation measures and their impact on the company's operations can be found further explained on the Appendix 64.

5.4 Investment plan

An investment plan involves the decision of where and how much to invest, having in mind a clear timeline and the risk tolerance. Its development is helpful to mitigate risks (Chen 2021).

- *CAPEX* are payments related with either the acquisition or maintenance of physical assets such as property, plants, and equipment (PP&E). Due to the entry mode selected, *Pontual* will not incur in the acquisition of new buildings, so the only costs regarding PP&E are related with the purchase of equipment (computers and monitors). The company would buy this equipment at the end of the year before the employees start working, so that it can have the equipment available once the employees arrive. The option of leasing the equipment was not considered because *Pontual* is a software firm and can join this necessity to other equipment, benefiting from bulk discounts. Moreover, the firm needs to make two investments in the website, one in 2024, before initiating the project, and another in 2029 (Appendix 65). These investments consist of the translation of the website to the country's home language (English) and the expansion of the website capacity, as when entering the new market, the data in storage will increase because of the increase in the number of clients (total investment cost of 3 600 euros).
- *Net Working Capital* is helpful to measure the company's short-term financial health. In this case, the NWC was achieved by computing the difference between accounts receivable and accounts payable. Throughout the years analyzed, it is estimated that *Pontual* has a positive NWC which means that it would have potential to invest further in its business. Moreover, it is predicted that the company will be able to sustain positive changes in NWC (Appendix 66).
- *Salvage value* is the value a company expects to receive from an asset after it has been fully depreciated. For the analysis, it was estimated that the computers, monitors, and website have

no salvage value. However, if the internationalization lasted only until 2030, in that year, since some of the assets have not fully depreciate yet, the company could sell them by their book value after the depreciation already suffered (Appendix 65).

5.5 Financial plan

A financial plan serves as an analysis of present and future costs and of income to assess the best course of action for the company. It is also an effective tool for evaluating whether a business idea is viable and to gather financing from investors (Investopedia 2021).

Break-Even Analysis

The Break-Even Point demonstrates how close or far a firm is from profits. In addition, the Break-Even Revenues indicator shows how low can sales go before a project becomes not viable. In year one, this indicator was equal to 410 291€, meaning that the company would be able to cover the project's expenses if it had achieved those revenues.

In this analysis, both revenues and costs (fixed and variable) grow throughout the life of the operation, but at different paces (Appendix 67). During the first year of operation in the UK, *Pontual* is not able to reach its Break-Even Revenues level (with only 387 810€ of revenue), resulting in negative profitability. However, as sales improve, the internationalization plan becomes profitable, meaning that from year 2 and within the presented timeline, the project presents considerable financial security.

Moreover, the Margin of Safety (MoS) is used to analyze projects in terms of business security and risk analysis - a higher MoS reduces the risk of business losses, so the higher, the better. It is possible to see in the Appendix 67 that the margin of safety of the project increases every year, from -6% in the first year to almost 24% in the last year of analysis.

All in all, these indicators' evolution validate that the project is in fact viable in the long-term due to the forecasts for market growth. Plus, this might suggest that increasing the longevity of

the project used in the analysis might provide more insightful conclusions (for example, determining the continuation value using perpetual cash-flows).

Cash-Flow Explanation

To confirm if the internationalization plan would be viable within the analyzed time frame, the Net Present Value was calculated. This indicator requires the computation of Free Cash-Flows, a result of the sum of Operational Cash-Flows (OCFs) and Investment Cash-Flows (ICFs).

The Operational Cash-Flows are an important benchmark to determine the financial success of a project and its future, indicating whether the project can generate enough to maintain or grow its operations. These are the summarized as the Net Income results of each year of the project to which the respective Depreciations and Amortizations are added back.

Due to project circumstances, the revenue is annually growing, as is the operating profit, but on a lower rate; as so, OCFs are getting higher over time, meaning that from 2027 on, operating activities become sufficient to cover all the operating expenses of the project.

In contrast, the Investment Cash-Flows involve the purchase or sale of fixed assets such as equipment. They consider the CAPEX which includes all investments in non-current assets and maintenance and the NWC which relates to the inventories that a firm must hold to run their operations, the account receivables, and the account payables. In this case, ICFs fluctuate during the years of the project due to the erratic variation of NWC components (Appendix 68).

Finally, during the two first years, the Free Cash-Flows of the project are negative since these years include the outflows related with the initial investments necessary to start the business.

5.6 Financial viability

Financial viability refers to a firm's capacity of generating enough revenue to cover its operational and debt payments and, where applicable, to allow for expansion while preserving service standards (Payroll Heaven, n.d.). To assess the financial viability of the internalization plan, some metrics were computed, including operational ratios (Appendix 69).

- *Profitability Index (PI)* is a metric that assesses the attractiveness of a project. The PI is computed through the division of the present value of future predicted cash flows with the initial amount invested in the project. It represents how much a project is worth per amount invested. In this case, 1 euro invested in this project will convert in 1,45 euros, concluding that the project generates value, and the company may want to proceed with it.
- *Net Present Value (NPV)* is the critical decision metric in project valuation since it shows the project's present value, the difference between the present value of cash inflows and of cash outflows over an investment's life. It is based on the Discounted Free Cash-Flows, which were computed using the average cost of capital of the software industry, 5,05% (NYU 2021). By definition, a project should be automatically rejected with a negative NPV. *Pontual*'s internationalization plan is attractive since it presents a positive NPV of 16 058 €, meaning that the CFs are reimbursing the investment made and the cost of capital inherent to the project.
- *Internal Rate of Return (IRR)* is the discount rate that equalizes the NPV of all Cash Flows; thus, if IRR is inferior to the cost of capital (5,05%), it means the company and its investors are better off investing capital in an alternative investment. In this case, the IRR is 7,02% which makes the project a sustainable investment option for *Pontual*.
- *Simple payback period (PP)* represents how much time will take *Pontual* to recover its initial investment. It is not a key metric commonly used because it does not show whether the project creates value or not, but it is helpful for the management team and decision makers to have an overall picture of the project. Here, *Pontual* would only recover after the 6th year due to the initial costs needed to support this expansion plus other non-financial costs, like the lack of knowledge of and experience in the British market.

5.7 Sensitivity and scenario analysis

Sensitivity Analysis

The *Sensitivity Analysis* investigates how variations in the values of an independent variable affect a specific dependent variable under a set of assumptions (Kenton 2021a). For the Sensitivity Analysis, there was a computation of three different analysis.

Firstly, a two-variable Sensitivity Analysis was performed on the Revenues of 2025 to observe the impact of the combined variations of Price and Number of Projects (Appendix 70). The worst-case scenario would be when the Revenue value is the lowest (300 240€), which corresponds to a 22,6% decrease in comparison with the normal scenario and occurs with a price per hour of 80€ and 27 projects completed. The best-case scenario would be when the Revenue value is the highest (486 500€), a 25,4% increase relative to its value in the normal scenario, which occurs when the price per hour is 100€ and the number of projects is 35.

Secondly, a two-variable Sensitivity Analysis was computed on the Net Income for 2025 that evaluated the impact of 10% changes in both Revenues and COGS (Appendix 71). In the worst-case scenario, the Net Income resulted from the Revenues being 310 248€ and the COGS being 160 264,80€ and had a value of -126 131,90€, a 477,02% decrease in comparison with the normal scenario. The best-case scenario occurs when the Revenues are 465 372€ and the COGS are 106 843,20€, resulting in a positive impact of 402,42% that lead to a Net Income of 66 106,82€. It should also be highlighted that even a decrease of 10% in COGS would not lead to a positive Net Income, when the Revenues of the normal scenario are considered.

Thirdly, a one-variable Sensitivity Analysis assessing the impact of the Interest Rate (changes of 1 percentual points) on the NPV for 2025 was completed (Appendix 72). From this analysis it is possible to concluded that lower interest rates lead to a higher NPV and that the NPV would only reach a negative value (-210€) when interest rate increases to 7,05%. The NPV is the lowest (-210€) when the Interest Rate is at its highest (7,05%).

Scenario Analysis

Scenario analysis is the process of investigating and considering potential future scenarios, as well as anticipating the many probable consequences or outcomes (Corporate Finance Institute, n.d.). This analysis will enable *Pontual* to determine the different scenarios to anticipate potential profits or losses.

For this analysis, it was estimated that the different scenarios would result from changes in Price charged per hour; Number of projects; COGS; and Taxes. It was assumed that *Pontual*'s personnel costs, marketing costs, investment in R&D and SG&A would remain unchanged.

The Normal Scenario (Appendix 73) considers an average price per hour of 90€ every year and assumes that the developers/software engineers will acquire know-how and improve their efficiency, being able to decrease the time spent correcting errors in the software over the years (from 50% to 35%), having more time available to work on project development and, consequently, increase the number of projects worked. Moreover, it was considered that the developers and software engineers hired were "mid-career" professionals with 5-9 years of experience (Payscale 2021). Finally, in terms of taxation, it was considered that the company will have to pay 17% of taxes for the first 25 000€ of earnings, and 21% for the rest. In this scenario, *Pontual* will only attain a positive Net Income in 2026 (13 293,43€).

In the Pessimistic Scenario (Appendix 74), it is predicted that the Price per hour decreases to 75€ in the first 3 years and to 80€ in the last 3 years analyzed. This is due to the fact that, in this scenario, it is assumed that the demand in the market is lower than normal, so *Pontual* has to charge lower prices. Regarding the Number of Projects, it was estimated that the workforce would be unable to reduce the time spent correcting errors (50%) over the years, due to a lack of efficiency, which would reduce the time allocated to projects and, consequently, the number of projects worked on. For the COGS, it is assumed that there will be a shortage of qualified professionals in the software development and engineering fields, so to incentivize and retain

the new hired specialists, *Pontual* would have to keep hiring mid-career professionals and provide them a bonus (assumed to be an average of the maximum and minimum values provided in Payscale's website in 2021) additional to their salary, resulting in higher direct labor costs. In terms of taxation, it is assumed that the standard Corporate Tax Rate will increase to 25% in 2025, a consequence of an economic crisis, caused by a non-recovery from the Covid-19 pandemic that led the government to implement taxes similar to those in the period in which Portugal was under Troika surveillance (Appendix 75). In this scenario, the Net Income will be negative throughout the entire period analyzed, so the tax rate would not affect *Pontual*.

In the Optimistic Scenario (Appendix 76), it is assumed that the demand in the market is higher than normal, so *Pontual* could charge higher prices (95€ and 100€). Additionally, the Number of Projects worked on would increase since it was estimated that the developers and engineers would only spend 35% of their available time debugging software each year, having the maximum efficiency already in 2025. Regarding COGS, it is considered that they would decrease due to a tendency of increasingly more openings in technological and data science fields (Jornal de Negócios 2021) in the long term and, therefore, increasingly more qualified graduates. This will drive *Pontual* to feel attracted to hire some graduates (entry-level professionals) for the developer's position, that have a lower salary (52% less) than mid-career ones (Payscale 2021). For this scenario, career progression of the collaborators was considered. The layout of software developers' level of experience for the whole period is detailed in Appendix 77. Regarding software engineers, it was considered that there would be job rotation, and that the employees would be always mid-career ones and, therefore, the salary would be constant. In terms of taxation, it is assumed that the standard Corporate Tax Rate will decrease to 19% in 2025, maintaining the same rate of decline (2%) as in previous reductions (Appendix 75) as part of a government's attempt to stimulate businesses. This tax rate would remain constant until 2030. As in the normal scenario, the firm will pay 17% of taxes for the first

25000€ of earnings. In this scenario, in the first year of operations *Pontual* would already be able to achieve a positive Net Income.

Conclusions, Limitations and Recommendations

Conclusions

The purpose of this project was to develop an internationalization plan for *Pontual Software Solutions*. The project was developed through five stages. The first aimed to analyze if the firm had enough resources and capabilities for the expansion. Secondly, the market selection identified that Germany, Sweden, Switzerland, France, and United Kingdom were the most potential countries for the internationalization. The in-depth analysis performed on each country revealed that the United Kingdom was the most appropriate market for *Pontual* to enter. Finally, a strategic plan was developed to decide the best entry strategy, elaborate a marketing plan for the new market, and study the financial projections on the project viability.

Limitations

When it comes to project limitations, the authors/group identified some issues that might compromise the full accuracy of the research.

Firstly, the lack of financial data to back up the financial forecasts section required the development of assumptions on main indicators like revenues and costs. These assumptions were justified by external reasoning that might not completely match the company's actual situation and performance.

Then, the project consists of a high reliance on secondary sources like external papers and articles due to the inability to find primary sources to sustain evidence; in consequence, there was a limited usage of primary sources – the analysis mainly relied on information provided by the company and lacked the usage of other sources due to *Pontual*'s underdeveloped brand recognition (for example, the elaboration of surveys to access the firm's positioning status).

Lastly, the entry mode chosen to enter the new market (Direct Exporting) tried to accommodate the company's necessities and capabilities; although, it is not suitable to solve a major problem stated by the company - the shortage of technical skills of the labor force. With the selected entry mode, the company would still work with Portuguese employees only, leaving it with the same restricted pool of talent.

Regarding limitations of *Pontual* itself, the restricted presence in the market limits the gathering of data and knowledge of the market, useful for insightful analysis and conclusions.

Also, the company's scarce financial resources and capacity can hamper the expansion process in terms of operations, as well as, in terms of long-term business sustainability. Moreover, *Pontual* currently has a low development of key business areas – like the Marketing department – which is key to succeed when starting an internationalization venture.

Finally, when looking specifically at the financial statements of the company, the uncategorized revenue streams might cause future issues; when in need for activities restructuring and business model changes, as well as, problem assessment and risk mitigation, transparency of statements is essential to triumph.

Recommendations

In terms of recommendations, the most important project decisions will be summarized. Afterwards, useful suggestions will be provided to *Pontual* so the company can improve its business performance. As a result of the country ranking and clustering, *Pontual* should acknowledge the United Kingdom, Switzerland, Sweden, Germany, and France as the five most promising markets to have into consideration for future internationalization plans. Following the in-depth analysis of each economy, the UK was considered the most suitable country due to the combination of its huge market potential with the presence of valuable contacts. The analysis of potential entry-modes led to a recommendation of low-control strategies, specifically Direct Exporting, given that the company cannot bear risks and should benefit from

a strategy that can provide flexibility in case the process does not meet expectations. The last factor is crucial given the unsuccess of past internationalization experiences. Regarding marketing, it was recommended that *Pontual* should clearly define its goals and objectives a priori while focusing its efforts in the B2B segment and establishing KPIs to monitor the marketing effectiveness. The recommended and preferred target are mid-sized companies operating in North West England. Financially, several assumptions were made to allow the forecasting. It was recommended for *Pontual* to consider the operational risks associated with the internationalization to the UK which comprise both internal and external risks that may damage the whole internationalization plan (see **above**).

The main recommendations for *Pontual*, mostly relate to the company's main insecurities when entering a new market; as so, the company should follow those recommendations to enhance its internal processes and to achieve a better business performance.

- *Marketing:* assembly of a structured marketing team and development of a respective strategy (suggestions can be found **above**); also, the tools used currently by the company – mainly social media – can be better explored and in a more extensive way (for example, using other marketing distribution channels).
- *Market Selection:* the methods used to assess and select new markets are currently inexistant or underdeveloped and are based only on the existence of contacts; as so, these should be improved with the addition of quantitative and qualitative research.
- *Entry Modes:* for the sake of repetition, accuracy, and standardization, *Pontual* should create an evaluation model for entry mode selection; a pre-established blueprint like the one presented in this paper can serve as basis for future internationalization endeavors.
- *Human Resources:* when it comes to people, *Pontual* should invest in the training and development of its employees, since, as a firm, it is inserted in a fast changing and dynamic industry; also, it can be a way to mitigate the aforementioned skills' shortage issue. Moreover,

enhancing activities like performance evaluation, reporting and monitoring should also be considered when aiming towards successful human resource management.

- *Finance:* regarding financial activities, *Pontual* stated that it lacks external funding, so it could be interesting for the company to explore funding initiatives that target SMEs; also, when aiming for a more organized accounting system, the firm could boost the transparency of its financial statements by using, for instance, a homemade accounting software.
- *Covid-19:* finally, forecasts predict a continuation of the current situation due to the recent developments of the Covid-19 pandemic. This worldwide event caused a digital migration of society and business in the past years, which presents itself as an opportunity for *Pontual*; now, the company can use this situation as leverage to boost its business activities, since its main business relies on supporting B2B clients on the course of digitalization and automation of processes. Also, increasing its online presence to develop brand awareness is now fundamental, since both potential customers and competition are increasingly active on social media and other online platforms.

As a suggestion for further research, the authors recommend the computation of a financial forecast based on perpetual cashflows and an additional detailed analysis on the Spanish market, as it is the short-term internationalization goal that *Pontual* wishes to accomplish.

References

Anderson, James C., and James A. Narus. 1990. "A Model of Distributor Firm and Manufacturer Firm Working Partnerships." *Journal of Marketing* 54 (1): 42–58. https://doi.org/10.1177/002224299005400103.

Andersen, O., and A. Buvik. 2002. "Firms' Internationalization and Alternative Approaches to the International Customer/Market Selection." *International Business Review* 11 (3): 347–63. https://doi.org/10.1016/s0969-5931(01)00064-6.

Andersen, Otto. 1997. "Internationalization and Market Entry Mode: A Review of Theories and Conceptual Frameworks" 37: 27–42. http://www.jstor.org/stable/40228431.

Arnaut, José Luís, João Leitão Figueiredo, and Sara Rocha. 2021. "Data Protection and Cybersecurity Laws in Portugal." CMS. March 15, 2021. https://cms.law/en/int/expert-guides/cms-expert-guide-to-data-protection-and-cyber-security-laws/portugal.

Athuraliya, Amanda. 2021. "Elements of Marketing Mix." *Creately* (blog). Last modified December 7, 2021. https://creately.com/blog/diagrams/elements-of-marketing-mix/.

Auvik. n.d. Accessed October 18, 2021. https://www.auvik.com/.

Baller, Silja, Soumitra Dutta, and Bruno Lanvin. 2016. "The Global Information Technology Report 2016 Innovating in the Digital Economy." http://www3.weforum.org/docs/GITR2016/GITR_2016_full%20report_final.pdf.

BASDA. n.d. "BASDA - Business Application Software Developers Association." BASDA. Accessed October 11, 2021. https://www.basda.org/.

BDO. 2021. "UK Regional Sector Maps." https://www.bdo.co.uk/getmedia/76417aab-51bb-4372-9381-52f1dac4a448/BDO-Regional-Sector-Map-brochure-2021.pdf.aspx.

Beaver, Scott. 2020. "The Costs behind Selling, General & Administrative Expenses." Oracle NetSuite. December 3, 2020.

https://www.netsuite.com/portal/resource/articles/accounting/selling-general-administrative-sga.shtml.

Berk, Ivo van den, Slinger Jansen, and Lútzen Luinenburg. 2010. "Software Ecosystems: A Software Ecosystem Strategy Assessment Model." In *Association for Computing Machinery*.

Billard, Lynne. 2005. "Journal of the American Statistical Association." *Encyclopedia of Biostatistics*, July. https://doi.org/10.1002/0470011815.b2a17080.

Black Marble. n.d. Accessed October 17, 2021. https://blackmarble.com/.

Bloomberg. 2021. "Are You a Robot?" Www.bloomberg.com. 2021. https://www.bloomberg.com/profile/company/SGE:LN.

Blue Wren. n.d. Accessed October 11, 2021. https://www.bluewren.co.uk/.

British Chambers of Commerce. n.d. Britishchambers.org.uk. Accessed December 8, 2021. https://www.britishchambers.org.uk/.

Buchegger, Thomas. 2014. *How to Start up a Software Business within a Cloud Computing Environment: An Evaluation of Aspects from a Business Development Perspective*. Hamburg: Anchor Academic Publishing.

Bulao, Jacquelyn. 2021. "How Many Companies Use Cloud Computing?" *TechJury* (blog). Last modified December 7, 2021. https://techjury.net/blog/how-many-companies-use-cloud-computing/.

Business.gov. n.d. "Export: Direct or Indirect?" Accessed November 22, 2021. https://business.gov.nl/running-your-business/international-business/export/export-direct-or-indirect/.

Cavusgil, S. Tamer, Tunga Kiyak, and Sengun Yeniyurt. 2004. "Complementary Approaches to Preliminary Foreign Market Opportunity Assessment: Country Clustering and Country Ranking." *Industrial Marketing Management* 33 (7): 607–17. https://doi.org/10.1016/j.indmarman.2003.10.005.

Cavusgil, S. Tamer. 1985. “Guidelines for Export Market Research.” *Business Horizons* 28 (6): 27–33. https://doi.org/10.1016/0007-6813(85)90082-5.

Chen, James. 2021. “Investment Strategy.” Investopedia. Last modified March 31, 2021. https://www.investopedia.com/terms/i/investmentstrategy.asp.

Chu, Wujin, and Erin M. Anderson. 1992. “Capturing Ordinal Properties of Categorical Dependent Variables: A Review with Application to Modes of Foreign Entry.” *International Journal of Research in Marketing* 9 (2): 149–60. https://doi.org/10.1016/0167-8116(92)90035-j.

Clutch. 2021. “Top Software Developers in the United Kingdom - 2021 Reviews.” 2021. https://clutch.co/uk/developers?industries=field_pp_if_bizservices&related_services=field_pp_sl_it_manag_services.

Core. n.d. “Core Technology Systems.” Accessed November 10, 2021. https://www.core.co.uk/.

Corporate Finance Institute. 2020. “Business Life Cycle.” March 26, 2020. https://corporatefinanceinstitute.com/resources/knowledge/finance/business-life-cycle/.

Corporate Finance Institute. n.d. “Cost of Goods Sold - Learn How to Calculate & Account for COGS.” Accessed November 13, 2021. https://corporatefinanceinstitute.com/resources/knowledge/accounting/cost-of-goods-sold-cogs/.

Corporate Finance Institute. n.d. “Research and Development - Learn about Accounting for R&D.” Accessed November 13, 2021. https://corporatefinanceinstitute.com/resources/knowledge/accounting/research-and-development-rd/.

Corporate Finance Institute. n.d. “What Is Scenario Analysis?” Accessed December 14, 2021. https://corporatefinanceinstitute.com/resources/knowledge/modeling/scenario-analysis/.

Credendo. 2021. “Political Risk Medium/Long Term.” http://www.credendo.com.

Czinkota, Michael R., and Ilkka A. Ronkainen. 2012. *Principles of International Marketing*. Mason, Ohio: South-Western; Andover.

Daniels, John, Lee Radebaugh, and Daniel Sullivan. 2015. *International Business: Environments and Operations*. 15th ed. Harlow: Pearson Education Ltd.

Datcom. n.d. Accessed October 11, 2021. https://datcom.co.uk/.

Decker, Allie. 2021. “The Ultimate Guide to Pricing Strategies.” *HubSpot* (blog). June 8, 2021. https://blog.hubspot.com/sales/pricing-strategy.

Delaney, Laurel. 2019. “Should My Company Export Products Directly to Its Customers?” The Balance Small Business. July 19, 2019. https://www.thebalancesmb.com/direct-exporting-advantages-and-disadvantages-1953310.

Denney, Ewen, and Bernd Fischer. n.d. “Software Certification and Software Certificate Management Systems.” Accessed December 2, 2021. https://ti.arc.nasa.gov/m/pub-archive/archive/1095.pdf.

Dignan, Larry. 2021. “Top Cloud Providers in 2021: AWS, Microsoft Azure, and Google Cloud, Hybrid, SaaS Players.” April 2, 2021. https://www.zdnet.com/article/the-top-cloud-providers-of-2021-aws-microsoft-azure-google-cloud-hybrid-saas/.

Dinsmore, Ted, and Edward O’Connor. 2005. *Partnering with Microsoft: How to Make Money in Trusted Partnership with the Global Software Powerhouse*. San Francisco, Ca: Cmp Books.

Duignan, Brian. 2018. “Occam’s Razor | Origin, Examples, & Facts.” In *Encyclopædia Britannica*. https://www.britannica.com/topic/Occams-razor.

Eitbiz. n.d. Accessed October 11, 2021. https://www.eitbiz.com/.

EPM. n.d. “Services Marketing Mix: The 7 P’s of Marketing Explained.” Accessed December 14, 2021. https://expertprogrammanagement.com/2018/03/services-marketing-mix-7-ps/.

European Commission. 2021. “State of the Union: Commission Proposes a Path to the Digital Decade to Deliver the EU’s Digital Transformation by 2030.” September 15, 2021. https://ec.europa.eu/commission/presscorner/detail/en/ip_21_4630.

European Commission. 2021a. “London.” European Commission. 2021. https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/london.

European Commission. 2021b. “North West.” European Commission. 2021. https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/north-west.

European Commission. 2021c. “South East of England.” European Commission. 2021. https://ec.europa.eu/growth/tools-databases/regional-innovation-monitor/base-profile/south-east-england.

Eurostat. 2019. “E-Business Integration.” 2019. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=E-business_integration.

Evans Data Corporation. 2021. “Worldwide Developer Population and Demographic Study 2021 V2.” https://evansdata.com/reports/viewRelease.php?reportID=9.

Export.gov. n.d. “Direct Exporting.” Accessed November 22, 2021. https://legacy.export.gov/article?id=Direct-Exporting.

EY. 2020. “EY Attractiveness Survey Portugal: How Can a Resilient Portugal Become a Platform for Sustainable Investment in the Future?” July 2020. https://assets.ey.com/content/dam/ey-sites/ey-com/pt_pt/topics/attractiveness/pdf/ey-attractiveness-survey-portugal-2020.pdf.

Fensterseifer, Jaime Evaldo. “Strategic Resources and Sustainability of Competitive Advantages in Industrial Clusters: Towards a General Analytical Framework.” ENCONTRO DA ASSOCIAÇÃO NACIONAL DE PÓS-GRADUAÇÃO EM ADMINISTRAÇÃO 33 (2009): 1–15.

Frazier, Gary L. 1983. "Interorganizational Exchange Behavior in Marketing Channels: A Broadened Perspective." *Journal of Marketing* 47 (4): 68. https://doi.org/10.2307/1251400.

Freedom House. 2021. "Global Freedom Score." https://freedomhouse.org/countries/freedom-net/scores.

Garfinkle, Joel. n.d. "7 Strategies to Define Your Competitive Advantage." Accessed October 14, 2021. https://garfinkleexecutivecoaching.com/articles/business-intelligence-and-company-strategy/do-you-know-the-seven-strategies-to-define-your-competitive-advantage.

Gartner. 2021. "Information Technology (IT) Services Spending Forecast Worldwide from 2008 to 2022 (in Billion U.S. Dollars)." Graph. Statista. October 20, 2021. https://www-statista-com.eu1.proxy.openathens.net/statistics/203291/global-it-services-spending-forecast/.

Geomant. n.d. Accessed October 11, 2021. https://www.geomant.com/.

Glassdoor. n.d. "Top Companies in Lisbon, Portugal Area." Accessed September 19, 2021. https://www.glassdoor.com/Explore/browse-companies.htm?overall_rating_low=3.5&page=1&isHiringSurge=0&locId=1121&locType=M&locName=Lisbon.

Global Innovation Index. 2021. "Indicator Rankings & Analysis | Global Innovation Index." https://www.globalinnovationindex.org/analysis-indicator.

GMMSO. 2018. "Global Readiness Test." http://2018.gmmso4.com/.

Gomes, Emanuel, Yaakov Weber, Chris Brown, and Shlomo Yedidia Tarba. 2011. *Mergers, Acquisitions and Strategic Alliances: Understanding the Process*. 1st ed. Macmillan International Higher Education.

Gonzalez, Jayne. 2021. "An Opportunity to Delight: Just 14% of Global Consumers Expect to Be Wowed by a Company." Freshworks. August 18, 2021. https://www.freshworks.com/press-releases/an-opportunity-to-delight-just-14-of-global-consumers-expect-to-be-wowed-by-a-company/.

GOV.UK. 2012. "Intellectual Property and Your Work." July 3, 2012. https://www.gov.uk/intellectual-property-an-overview.

GOV.UK. 2021. "UK Guidance on the Provision of Services Regulations Written for Competent Authorities, Devolved Administrations, Government Departments and Businesses." https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975587/provision-of-services-guidance-march-2021.pdf.

GOV.UK. n.d. "Apply for the Global Talent Visa." Accessed December 11, 2021. https://www.gov.uk/global-talent.

GOV.UK. n.d. "Corporation Tax." Accessed October 23, 2021. https://www.gov.uk/corporation-tax.

GOV.UK. n.d. "Data Protection." Accessed November 15, 2021. https://www.gov.uk/data-protection.

GOV.UK. n.d. "Department for International Trade." GOV.UK. Accessed November 10, 2021. https://www.gov.uk/government/organisations/department-for-international-trade.

GOV.UK. n.d. "Equality and Diversity." Accessed November 5, 2021. https://www.gov.uk/government/organisations/home-office/about/equality-and-diversity.

GOV.UK. n.d. "Export Controls: Military Goods, Software and Technology." Accessed October 11, 2021. https://www.gov.uk/guidance/export-controls-military-goods-software-and-technology.

GOV.UK. n.d. "Guide to the General Data Protection Regulation." Accessed November 7, 2021. https://www.gov.uk/government/publications/guide-to-the-general-data-protection-regulation.

GOV.UK. n.d. "Innovate UK." GOV.UK. Accessed October 7, 2021. https://www.gov.uk/government/organisations/innovate-uk.

GOV.UK. n.d. "Innovator Visa." GOV.UK. Accessed December 11, 2021. https://www.gov.uk/innovator-visa.

GOV.UK. n.d. "Intellectual Property Office." Accessed November 26, 2021. https://www.gov.uk/government/organisations/intellectual-property-office.

GOV.UK. n.d. "Overseas Companies Registered in the UK." Accessed December 11, 2021. https://www.gov.uk/government/publications/overseas-companies-in-the-uk-registration-filing-and-disclosure-obligations/overseas-companies-registered-in-the-uk.

GOV.UK. n.d. "Patenting Your Invention." GOV.UK. Accessed November 3, 2021. https://www.gov.uk/patent-your-invention.

GOV.UK. n.d. "Set up a Business." Accessed November 1, 2021. https://www.gov.uk/set-up-business.

GOV.UK. n.d. "Start-up Visa." Accessed December 11, 2021. https://www.gov.uk/start-up-visa.

Governo de Portugal. 2021. "AI Portugal 2030." April 2021. https://www.portugal.gov.pt/download-ficheiros/ficheiro.aspx?v=%3D%3DBAAAAB%2BLCAAAAAAABACzMDQxAQC3h%2ByrBAAAAA%3D%3D.

Hallen, Lars, Jan Johanson, and Nazeem Seyed-Mohamed. 1991. "Interfirm Adaptation in Business Relationships." *Journal of Marketing* 55 (2): 29. https://doi.org/10.2307/1252235.

Hana, Urbancová, and Linhartová Lucie. 2011. "Staff Turnover as a Possible Threat to Knowledge Loss." *Journal of Competitiveness | Issue* 3. https://www.cjournal.cz/files/69.pdf.

Hayes, Adam. 2021. "Everything You Need to Know about Market Share." Investopedia. 2021. https://www.investopedia.com/terms/m/marketshare.asp.

Hofstede Insights. 2021. "Country Comparison." https://www.hofstede-insights.com/country-comparison/.

Hollensen, Svend. 2008. *Essentials of Global Marketing*. Pearson Education.

IAPMEI. 2021. "Sistemas de Incentivos à Economia Digital." https://www.iapmei.pt/PRODUTOS-E-SERVICOS/Incentivos-Financiamento/Sistemas-de-Incentivos/Tutoriais-e-Boas-Praticas/DOCSTutoriais/GuiaIndustria40_9.aspx.

IGE. 2020. "News Details - Swiss Federal Institute of Intellectual Property." September 3, 2020. https://www.ige.ch/en/services/newsroom/news/news-details/global-innovation-index-2020-switzerland-remains-the-most-innovative-country-in-the-world.

International Trade Administration. 2021. "Portugal - Information and Communications Technology." Last modified October 2, 2021. https://www.trade.gov/country-commercial-guides/portugal-information-and-communications-technology.

Investopedia. 2021. "Financial Health Checklist." Last modified October 14, 2021. https://www.investopedia.com/terms/f/financial_plan.asp.

Išoraitė, Margarita. 2016. "Marketing Mix Theoretical Aspects." *International Journal of Research-Granthaalayah* 4 (6): 25–37. https://doi.org/10.29121/granthaalayah.v4.i6.2016.2633.

Ivy, Jonathan. 2008. "A New Higher Education Marketing Mix: The 7Ps for MBA Marketing." Edited by Paul Gibbs. International Journal of Educational Management 22 (4): 288–99. https://doi.org/10.1108/09513540810875635.

Jackson, David. n.d. "Software Development Price Guide & Hourly Rate Comparison." *FullStack Labs* (blog). Accessed November 27, 2021. https://www.fullstacklabs.co/blog/software-development-price-guide-hourly-rate-comparison.

Jallow, A. K., Kostas Vergidis, Ashutosh Tiwari, and Basim Majeed. 2007. "Operational Risk Analysis in Business Processes." *BT Technology Journal* 25 (1): 169–77.

Jornal de Negócios. 2021. "Ensino Superior: Quase 500 vagas em novos cursos de engenharias e ciência de dados." July 31, 2021.

https://www.jornaldenegocios.pt/economia/educacao/detalhe/20210731-0938-ensino-superior-quase-500-vagas-em-novos-cursos-de-engenharias-e-ciencia-de-dados.

Kagan, Julia. 2020. "Introduction to the Financial Operating Plan (FOP)." Investopedia. July 8, 2020. https://www.investopedia.com/terms/f/fop.asp.

Kalia, Vishal. 2019. "Strategic Alliance: What Is It, Types, Benefits & Why You Need It." *WorkSpan* (blog). August 13, 2019. https://www.workspan.com/blog/strategic-alliance-definition/.

KAMBDA. 2018. "Software Development for Small Businesses Is Not a Thing of Dreams." October 29, 2018. https://www.kambda.com/software-development-small-business-not-impossible/.

Kenton, Will. 2021a. "Sensitivity Analysis." Investopedia. Last modified October 5, 2021. https://www.investopedia.com/terms/s/sensitivityanalysis.asp.

Kenton, Will. 2021b. "What Is an Industry?" Investopedia. 2021. https://www.investopedia.com/terms/i/industry.asp.

Knoema. 2021. "Network Readiness Index 2020." April 5, 2021. https://knoema.com/infographics/ljisicg/network-readiness-index-2020-digital-transformation-at-a-glance.

KRA Solutions. n.d. Accessed October 11, 2021. https://krasolutions.com/.

Kubíčková, Lea, Marcela Votoupalová, and Martina Toulová. 2014. "Key Motives for Internationalization Process of Small and Medium–Sized Enterprises." *Procedia Economics and Finance*, 17th International Conference Enterprise and Competitive Environment 2014, 12 (January): 319–28. https://doi.org/10.1016/S2212-5671(14)00351-7.

Kumar, V., and Velavan Subramanian. 1997. "A Contingency Framework for the Mode of Entry Decision." *Journal of World Business* 32 (1): 53–72. https://doi.org/10.1016/s1090-9516(97)90025-0.

Labafi, Somayeh. 2016. "Knowledge Hiding as an Obstacle of Innovation in Organizations a Qualitative Study of Software Industry." AD-Minister 30 (June): 131–48. https://www.redalyc.org/journal/3223/322349942009/html/.

LaBerge, Laura, Clayton O'Toole, Jeremy Schneider, and Kate Smaje. 2020. "How COVID-19 Has Pushed Companies over the Technology Tipping Point—and Transformed Business Forever." McKinsey. October 5, 2020. https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever.

Larson, Aaron. "Portugal's Last Coal Power Plant Shuts Down, Fourth Country in Europe to Stop Burning Coal." *POWER Magazine* (blog), November 22, 2021. https://www.powermag.com/portugals-last-coal-power-plant-shuts-down-fourth-country-in-europe-to-stop-burning-coal/.

Lead Forensics. n.d. "Lead Generation Metrics: Measurements for Success." Accessed November 8, 2021. https://www.leadforensics.com/lead-generation-metrics-measurements-for-success/.

Leaf. n.d. "10 Ways to Prevent Cyber Attacks - Leaf." Accessed December 16, 2021. https://leaf-it.com/10-ways-prevent-cyber-attacks/.

Lendrevie, Jacques, Julien Lévy, Pedro Dionísio, and Joaquim Vicente Rodrigues. 2015. *Mercator da Lingua Portuguesa: teoria e prática do marketing*. Leya.

LinearB. 2018. "What Is Software Development Cycle Time." https://linearb.io/cycle-time/.

Lippoldt, Douglas, and Piotr Stryszowski. 2009. *Innovation in the Software Sector*. Paris: Oecd Publishing.

Lombardi, Jen. n.d. "How Much B2B Tech Companies Actually Spend on Marketing." *Kiwicreative* (blog). Accessed October 10, 2021. https://blog.kiwicreative.net/how-much-b2b-marketers-spend.

Lozhko, Mariia. 2020. “Custom ERP Software Development: All You Need to Know.” *Lanars* (blog). April 27, 2020. https://lanars.com/blog/custom-erp-software-development.

Marketline. 2021. “MarketLine Industry Profile: Software in the United Kingdom.” February.

Markets and Markets. n.d. “Cloud Computing Market by Service Model & Deployment Model - 2023.” Accessed October 9, 2021. https://www.marketsandmarkets.com/Market-Reports/cloud-computing-market-234.html.

Markovic, Isidora. 2021. “What Is the Average Cost of Training a New Employee?” EduMe. November 22, 2021. https://edume.com/blog/cost-of-training-a-new-employee.

McKinsey & Company. 2020. “Reimagining Marketing: Marketing in the next Normal.” https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Marketing%20and%20Sales/Our%20Insights/Reimagining%20marketing/Reimagining-marketing.pdf.

Mitchell, C. n.d. “What Are Software Industry Standards?” Smart Capital Mind. Accessed December 12, 2021. http://www.smartcapitalmind.com/what-are-software-industry-standards.htm.

Morris, Rod. 2007. “Quality Certifications and What They Mean in Software Development.” January 2007. https://www.fibre2fashion.com/industry-article/1214/quality-certifications-and-what-they-mean-in-software-development.

Myerson Solicitors. n.d. Accessed November 9, 2021. https://www.myerson.co.uk/.

NationMaster. 2005. “Countries Compared by Economy: International Statistics.” https://www.nationmaster.com/country-info/stats/Economy/Micro/Small-and-medium-enterprises/Number/Per-capita#.

Nouveau Solutions. n.d. Accessed November 4, 2021. https://www.nouveau.co.uk/.

Nunes, Paulo. 2016. “Mapa Perceptual.” Knoow. April 5, 2016. https://knoow.net/cienceconempr/gestao/mapa-perceptual/.

NYU. 2021. https://people.stern.nyu.edu/adamodar/New_Home_Page/datafile/wacc.htm.

O'Connor, Emily, and International Chamber of Commerce. 2014. *Using Franchising to Take Your Business International: ICC Strategies and Guidance for Master Franchising, Area Development and Other Arrangements*. Vol. 00754. Paris, France: ICC Services SAS - Publishing Department.

O'Dell, Devon H. 2017. "The Debugging Mindset." *ACM Queue*, March 22, 2017. https://queue.acm.org/detail.cfm?id=3068754.

OAEC. 2020. "The Advantages & Disadvantages of Foreign Owned Subsidiaries." Open a European Company. August 1, 2020. https://www.openaeuropeancompany.com/blog/the-advantages-a-disadvantages-of-foreign-owned-subsidiaries/.

Oakley Capital. n.d. Oakley Capital. Accessed September 29, 2021. https://oakleycapital.com/.

OECD. 2021. "Statutory Corporate Income Tax Rates." https://stats.oecd.org/Index.aspx?DataSetCode=CTS_CIT.

OECD. n.d. "OECD Economic Outlook." Accessed November 1, 2021. https://www.oecd.org/economic-outlook/.

Ogbeiwi, Osahon. 2017. "Why Written Objectives Need to Be Really SMART." *British Journal of Healthcare Management* 23 (July): 324–36. https://doi.org/10.12968/bjhc.2017.23.7.324.

Orbis. n.d. "Orbis | Company Information across the Globe | PONTUAL - SOLUCOES INFORMATICAS INDUSTRIAIS, LDA." Accessed November 22, 2021. https://orbis.bvdinfo.com/version-20211118/orbis/1/Companies/Report.

Pang, Albert. 2019. "Top 10 ERP Software Vendors and Market Forecast 2017-2022." Apps Run the World - Apps Research & Buyer Insight. January 10, 2019. https://www.appsruntheworld.com/top-10-erp-software-vendors-and-market-forecast/.

Papadopoulos, N., Hongbin Chen, and D.R. Thomas. 2002. "Toward a Tradeoff Model for International Market Selection." *International Business Review* 11 (2): 165–92. https://doi.org/10.1016/s0969-5931(01)00054-3.

Papadopoulos, Nicolas, and Jean-Emile Denis. 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, Nicolas, and Oscar Martín Martín. 2011. "International Market Selection and Segmentation: Perspectives and Challenges." Edited by Nicolas Papadopoulos. *International Marketing Review* 28 (2): 132–49. https://doi.org/10.1108/02651331111122632.

Payroll Heaven. n.d. "Define: Financial Viability | Financial Viability Definition." Accessed November 3, 2021. https://payrollheaven.com/define/financial-viability/.

Payscale. 2021. "The State of the Gender Pay Gap in 2021." Last modified March 24, 2021. https://www.payscale.com/research-and-insights/gender-pay-gap/.

Payscale. 2021a. "Customer Service Manager Salary in Portugal | PayScale." 2021. https://www.payscale.com/research/PT/Job=Customer_Service_Manager/Salary.

Payscale. 2021b. "Marketing Manager Salary in Portugal | PayScale." November 22, 2021. https://www.payscale.com/research/PT/Job=Marketing_Manager/Salary.

Payscale. 2021c. "Regional Sales Manager Salary in Portugal | PayScale." November 22, 2021. https://www.payscale.com/research/PT/Job=Regional_Sales_Manager/Salary.

Payscale. 2021d. "Technical Support Engineer Salary in Portugal | PayScale." November 22, 2021. https://www.payscale.com/research/PT/Job=Technical_Support_Engineer/Salary.

Payscale. 2021e. "Software Engineer Salary in Portugal | PayScale." November 27, 2021. https://www.payscale.com/research/PT/Job=Software_Engineer/Salary.

Payscale. 2021f. "Software Developer Salary in Portugal | PayScale." November 29, 2021. https://www.payscale.com/research/PT/Job=Software_Developer/Salary.

Peralta, Helena. 2021. "Falta de Profissionais Nas TI Faz Disparar Salários Em Portugal." *Diário de Notícias*, March 28, 2021. https://www.dn.pt/edicao-do-dia/28-mar-2021/falta-de-profissionais-nas-ti-faz-disparar-salarios-em-portugal-13508322.html.

Pett, Timothy L, John D. Francis, and James A. Wolff. 2004. "Examining SME Internationalization Motives as an Extension of Competitive Strategy." *Journal of Business and Entrepreneurship* 16 (1): 46–65.

Podder, Sanjay, Adam Burden, Shalabh Kumar Singh, and Regina Maruca. 2020. "How Green Is Your Software?" *Harvard Business Review*, September 18, 2020. https://hbr.org/2020/09/how-green-is-your-software.

Podder, Sanjay, Adam Burden, Shalabh Kumar Singh, and Regina Maruca. 2020. "How Green Is Your Software?" *Harvard Business Review*, September 18, 2020. https://hbr.org/2020/09/how-green-is-your-software.

Pontual Software Solutions. n.d. Accessed September 1, 2021. https://www.pontualsoftware.com/.

Pordata. n.d. "Electricity Consumption: Total and by Type of Consumption." Accessed October 30, 2021. https://www.pordata.pt/en/Portugal/Electricity+consumption+total+and+by+type+of+consumption-1124.

Portal Dos Incentivos. n.d. "RFAI – Regime Fiscal de Apoio Ao Investimento." Accessed December 12, 2021. https://www.portaldosincentivos.pt/index.php/rfai.

Porter, Michael E. 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.

Porter, Michael E. 1985. *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: The Free Pess. https://books.google.pt/books?hl=pt-PT&lr=&id=7UqQXsQ_dj4C&oi=fnd&pg=PT11&dq=Competitive+Advantage:+Creating+a

nd+Sustaining&ots=Fg5UYrBK8G&sig=DLGkns_QJjPS_OpdPEX3b2bthOA&redir_esc=y#v=onepage&q=Competitive%20Advantage%3A%20Creating%20and%20Sustaining&f=false

.

Portugal IN. n.d. "Tech/Innovation." Accessed December 4, 2021. http://www.portugalin.gov.pt/innovation/.

Price, Gary K. 1999. "Licensing Agreement." *SAE Transactions* 108: 147–52. https://www.jstor.org/stable/pdf/44723035.pdf?ab_segments=0%2Fbasic_search_gsv2%2Fcontrol&refreqid=fastly-default%3Aa85a51d2d4dcddd665424a74f3f3ba5b.

PWC. 2021. "Portugal - Corporate - Taxes on Corporate Income." August 18, 2021. https://taxsummaries.pwc.com/portugal/corporate/taxes-on-corporate-income.

Q-Better. n.d. "The Real Cost of Queues." Accessed December 6, 2021. https://web.q-better.com/the-real-cost-of-queues/.

Queue-it. n.d. "Virtual Waiting Room | Prevent Website Crashes." Accessed December 16, 2021. https://queue-it.com/.

Quontex. n.d. Accessed November 4, 2021. https://quontex.co/.

Rathenau. 2021. "Number of Doctorate Degrees (PhD Degrees) Compared Internationally." August 24, 2021. https://www.rathenau.nl/en/science-figures/output/phd-and-master-degrees/number-doctorate-degrees-phd-degrees-compared.

Research and Markets. 2021. "Global 5G Technology & Volume Forecast Report 2021: Market Value Is Expected to Reach $65.49 Billion by 2026, Growing at a CAGR of 58.7%." GlobeNewswire. October 7, 2021. https://www.globenewswire.com/news-release/2021/10/07/2310172/28124/en/Global-5G-Technology-Volume-Forecast-Report-2021-Market-Value-is-Expected-to-Reach-65-49-Billion-by-2026-Growing-at-a-CAGR-of-58-7.html.

Rhodes, Chris, and Niamh Foley. 2021. "Industries in the UK." House of Commons Library. October 30, 2021. https://commonslibrary.parliament.uk/research-briefings/cbp-8353/.

RIM Initiative. 2020. "Operational Risk." https://www.riminitiative.org/operational-risk/.

Robertson, Kim R., and Van R. Wood. 2001. "The Relative Importance of Types of Information in the Foreign Market Selection Process." *International Business Review* 10 (3): 363–79. https://doi.org/10.1016/s0969-5931(01)00021-x.

Robinson, Jon. 2021. "SMEs Set for Near-£6m Funding Boost through Universities Project." Business Live. May 18, 2021. https://www.business-live.co.uk/enterprise/smes-set-near-6m-funding-20620623.

Romanelli, Elaine. 1989. "Environments and Strategies of Organization Start-Up: Effects on Early Survival." *Administrative Science Quarterly* 34 (3): 369. https://doi.org/10.2307/2393149.

Rugman, Alan M., Simon Collinson, and Richard M. Hodgetts. 2006. *International Business*. 4th ed. Pearson Education.

Sachdev, Umesh. 2021. "How a Complete AI Architecture Can Transform Businesses." World Economic Forum. December 3, 2021. https://www.weforum.org/agenda/2021/12/how-ai-architecture-can-transform-business/.

Sage. 2013. "ROEI: Return on Employee Investment Increase Competitiveness through Your Biggest Asset." https://www.sage.com/na/~/media/site/Sage%20HRMS/pdf/SageHRMS_ROEI.pdf

Segal, Mark. 2021. "UK Makes It Official: Mandatory Climate Disclosure to Become Law." ESG Today. October 29, 2021. https://www.esgtoday.com/uk-makes-it-official-mandatory-climate-disclosures-to-become-law/.

Sengupta, S. 1998. "Some Approaches to Complementary Product Strategy." *Journal of Product Innovation Management* 15 (4): 352–67. https://doi.org/10.1016/s0737-6782(97)00106-9.

Shirer, Michael, and Mike Glennon. 2021. "Investment in Artificial Intelligence Solutions Will Accelerate as Businesses Seek Insights, Efficiency, and Innovation, According to a New IDC Spending Guide." Businesswire. August 30, 2021. https://www.businesswire.com/news/home/20210830005091/en/Investment-in-Artificial-Intelligence-Solutions-Will-Accelerate-as-Businesses-Seek-Insights-Efficiency-and-Innovation-According-to-a-New-IDC-Spending-Guide.

Simões, Tiago. 2020. "All You Need to Know About Reactive Web Applications." *Outsystems* (blog). August 11, 2020. https://www.outsystems.com/blog/posts/all-you-need-to-know-about-reactive-web/.

Smith, Kit. 2018. "How to Measure Brand Awareness." Brandwatch. November 5, 2018. https://www.brandwatch.com/blog/how-to-measure-brand-awareness/.

Smith, Tim. 2013. "What Are Firmographics?" Wiglaf Journal. January 7, 2013. https://wiglafjournal.com/what-are-firmographics/.

Stack Overflow. 2018. "Stack Overflow Developer Survey 2018." 2018. https://insights.stackoverflow.com/survey/2018.

Stallmann, Martin. 2018. "Environmental Impact of Software Is Now Measurable." Umwelt Bundesamt. Umweltbundesamt. December 18, 2018. https://www.umweltbundesamt.de/en/press/pressinformation/environmental-impact-of-software-is-now-measurable.

Statista. n.d. "Enterprise Software - United Kingdom." Accessed November 8, 2021. https://www- https://www.statista.com/outlook/tmo/software/enterprise-software/united-kingdom.

Statista. n.d. “ERP Revenue - United Kingdom.” Accessed November 8, 2021. https://www-statista-com.eu1.proxy.openathens.net/outlook/tmo/software/enterprise-software/enterprise-resource-planning-software/united-kingdom?currency=EUR#revenue.

Statista. n.d. “ERP Software - Portugal.” Accessed October 11, 2021. https://www-statista-com.eu1.proxy.openathens.net/outlook/tmo/software/enterprise-software-/enterprise-resource-planning-software/portugal?currency=USD#revenue.

Statista. n.d. “Software Market Revenue in Portugal 2016-2021.” Accessed September 19, 2021. https://www.statista.com/forecasts/963613/software-revenue-in-portugal.

Statista. n.d. “Software Revenue - United Kingdom.” Accessed November 8, 2021. https://www-statista-com.eu1.proxy.openathens.net/outlook/tmo/software/united-kingdom?currency=EUR#revenue.

Statista. n.d. “Software.” Accessed December 12, 2021. https://www-statista-com.eu1.proxy.openathens.net/markets/418/topic/484/software//.

Stratis, Alexandros. 2021. “The Impact of Brexit on the Software Market.” IDC Europe Blog. January 25, 2021. https://blog-idceurope.com/the-impact-of-brexit-on-the-software-market/.

Tandem. 2021. “The Environmental Impact of the Tech Industry.” June 1, 2021. https://madeintandem.com/blog/environmental-impact-tech-industry/.

Tarver, Evan. 2021. “Market Segmentation.” Investopedia. April 5, 2021. https://www.investopedia.com/terms/m/marketsegmentation.asp.

Tatum, Malcom. n.d. “What Is the Role of Product in the Marketing Mix?” Smart Capital Mind. Accessed November 14, 2021. https://www.smartcapitalmind.com/what-is-the-role-of-product-in-the-marketing-mix.htm.

Tax Justice Network. 2020. “Financial Secrecy Index.” https://fsi.taxjustice.net/en/introduction/fsi-results.

TechChannel. 2018. “Human Error Is Top Cause of Downtime.” https://techchannel.com/SMB/10/2018/Human-Error-Top-Cause-of-Downtime.

TechUK. n.d. “Representing the Tech Industry in the UK.” Techuk.org. Accessed October 7, 2021. https://www.techuk.org/.

The Global Economy. 2019. “Transfer Risk by Country, around the World.” https://www.theglobaleconomy.com/rankings/transfer_risk/.

The Global Economy. 2020. “Corruption Perceptions - Transparency International by Country, around the World.” https://www.theglobaleconomy.com/rankings/transparency_corruption/.

The Global Economy. 2021. “GII Index”. https://www.theglobaleconomy.com/rankings/GII_Index/.

The Heritage Fundation. 2021. “Economic Freedom Index.” https://www.heritage.org/index/download?version=741.

The Software Alliance. 2011. “IT Industry Competitiveness Index 2011.” 2011. http://globalindex11.bsa.org/country-table/.

The World Bank. 2016. “Research and Development Expenditure (% of GDP) | Data.” https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS.

The World Bank. 2018. “Lending Interest Rate (%) | Data.” https://data.worldbank.org/indicator/FR.INR.LEND.

The World Bank. 2018. “Logistics Performance Index: Competence and Quality of Logistics Services (1=Low to 5=High) | Data.” https://data.worldbank.org/indicator/LP.LPI.LOGS.XQ.

The World Bank. 2019. “Foreign Direct Investment, Net Inflows (BoP, Current US$) | Data.” https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD.

The World Bank. 2020. “Age Dependency Ratio, Young (% of Working-Age Population) | Data.” Data.worldbank.org. https://data.worldbank.org/indicator/SP.POP.DPND.YG.

The World Bank. 2020. "GDP Growth (Annual %) | Data." https://data.worldbank.org/indicator/ny.gdp.mktp.kd.zg.

The World Bank. 2020. "GDP per Capita, PPP (Current International $) | Data." https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD.

The World Bank. 2020. "Population Growth (Annual %) | Data." https://data.worldbank.org/indicator/sp.pop.grow.

The World Bank. 2020. "Population, Total | Data." https://data.worldbank.org/indicator/SP.POP.TOTL.

The World Bank. 2021. "Resolving Insolvency - Doing Business." https://www.doingbusiness.org/en/data/exploretopics/resolving-insolvency.

Tîrlea, A., M. Bãdilã, and C. Kifor. 2020. "Facilitating of Knowledge Transfer in a Software Development Company." IOP Publishing.

Top Draw. 2020. "Online Advertising Costs in 2021." Top Draw Inc. June 12, 2020. https://www.topdraw.com/insights/is-online-advertising-expensive/.

Trading Economics. 2021. "Portugal Corporate Tax Rate." https://tradingeconomics.com/portugal/corporate-tax-rate.

Tributa.Net (blog). 2012. "TAXA DE DEPRECIAÇÃO – Computadores Periféricos e Programas de Informática." September 28, 2012. https://www.tributa.net/taxa-de-depreciacao-computadores-perifericos-e-programas-de-informatica.

UCL. 2018. "Small & Medium Size Enterprises (SMEs)." June 27, 2018. https://www.ucl.ac.uk/procurement/suppliers/smes.

UNESCO. 2016. "GERD - Labour Costs % (% of Total Costs)." http://data.uis.unesco.org/Index.aspx?DataSetCode=SCN_DS&lang=en#.

UNESCO. 2017. "Total R&D Personnel (FTE) - Higher Education." http://data.uis.unesco.org/Index.aspx?DataSetCode=SCN_DS&lang=en#.

Unily. n.d. Accessed November 4, 2021. https://www.unily.com/.

Unity World. n.d. Accessed October 11, 2021. https://unity.world/.

Walker, Andrew. 2021. "UK Set for Stronger Post-Covid Recovery, Says OECD." *BBC News*, May 31, 2021, sec. Business. https://www.bbc.com/news/business-57306596.

WebFX. 2021. "How Much Does Email Marketing Cost in 2021? | Email Marketing Pricing." https://www.webfx.com/email-marketing-pricing.html.

Wei, Sun, Zhang Kuo, Chen Shyh-Kwei, Zhang Xin, and Liang Haiqi. 2007. "Software as a Service: An Integration Perspective." In *Software as a Service: An Integration Perspective*. Springer.

Yaghoobi, Tahere. 2017. "Prioritizing Key Success Factors of Software Projects Using Fuzzy AHP." *Journal of Software: Evolution and Process* 30 (1): e1891. https://doi.org/10.1002/smr.1891.

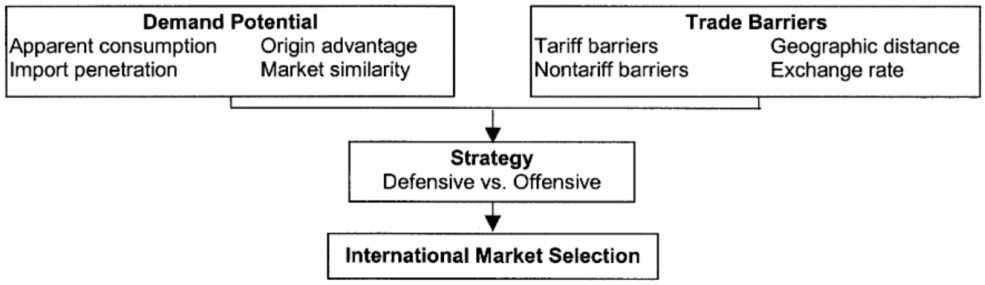
Yesbeck, Jennifer. 2018. "The Importance of Targeting in Marketing (and How to Include It in Your Strategy)." *Alexa* (blog). February 8, 2018. https://blog.alexa.com/targeting-in-marketing/.

Appendix

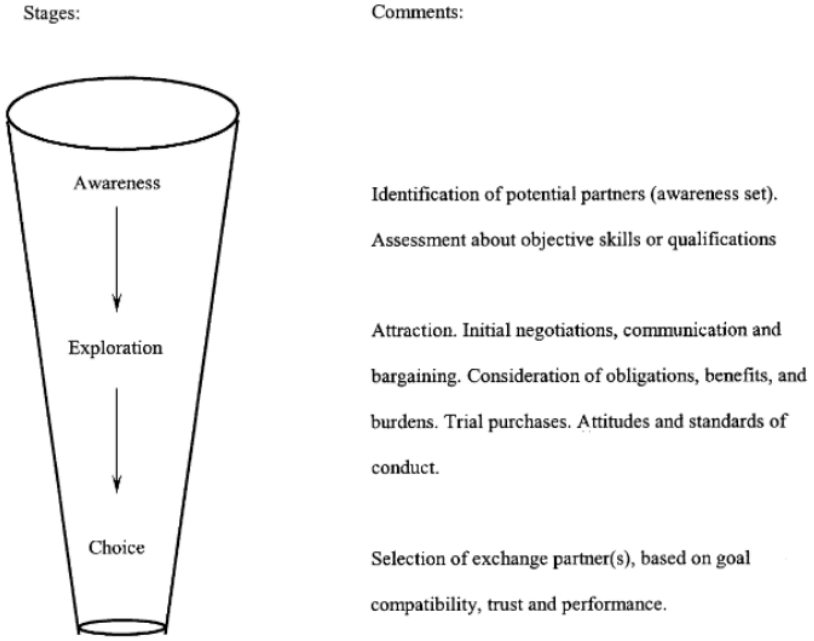
Appendix 1: Average importance ratings for environmental dimensions

Primary environmental dimension	Mean importance rating	Standard deviation	Rank order of importance	Standardized coefficient alpha
Market Potential	2.25	0.58	1	0.90
Legal	2.98	0.68	2	0.82
Politics	3.27	0.81	3	0.86
Infrastructure	3.49	0.68	4	0.84
Economics	3.56	0.72	5	0.79
Culture	3.71	0.69	6	0.66

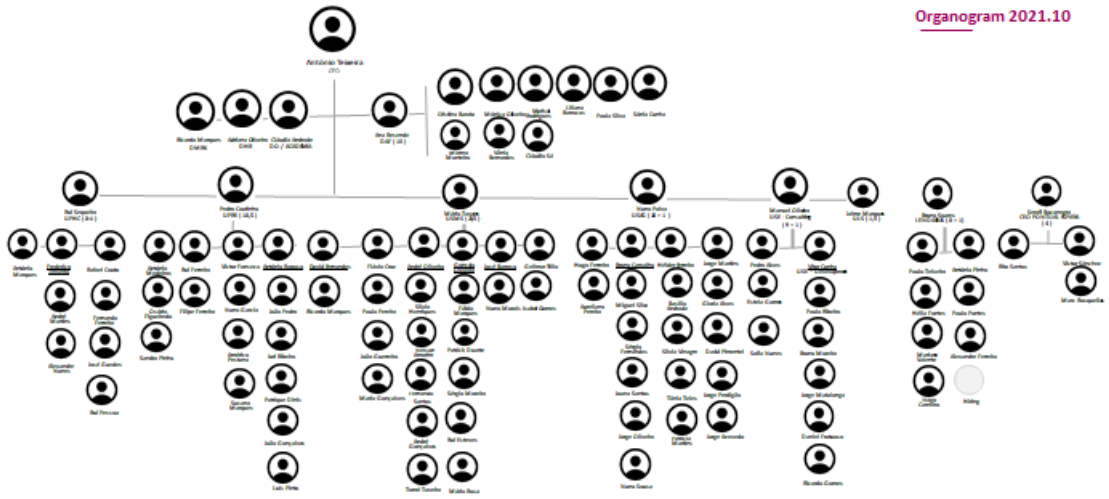
Appendix 2: Tradeoff model for International Market Selection



Appendix 3: The choice of international exchange partner – a relationship approach



Appendix 4: Pontual Software Solutions Organogram



Appendix 5: Enterprise Resource Planning Software

Enterprise Resource Planning Software	
PRIMAVERA (Premium Partner)	18 years of experience in complex and demanding projects, with specific development and systems integration. The Primavera Software Unit was launched in the year 2000.
PHC	Is divided in 3 gammas and is an ERP for medium and large companies.
Sage	*Sage SMB* - Intended for small and medium-sized businesses. *Sage X3* - Driven towards medium and large businesses. Software that offer wide functional coverage and process automation; evolution of HR practices and strategies, thanks to a vast and perennial adaptation and customization; optimization of information circulation and data management; and Business Intelligence, fully integrated and user-oriented.
Eticadata (Gold Partner)	Web-based ERP that helps on the optimization of the decision-making process.

Appendix 6: Pontual Product Portfolio

***Pontual* Product Portfolio**	
GuruVet	Performs the administrative and financial management of Clinics and Veterinary Centers through a customer loyalty CRM system.
Guniss	Healthcare Software designed by and for healthcare professionals, which was added in 2020, part of the expansion of Health Unit.
Lémure	Online Management Software

ToBeFlow	Web-based platform that allows the management of all information peripheral to the ERP system, normally spread by Excel files, email messages, commercial proposals, address books, among other information that is equally essential to the organization.
JurisFlow	Was created thinking about the lawyers' routine, helping them to be more productive and organized.
Avance	International software solution that seeks to respond to all the organizational needs of any Notarial Office integrated in the Latin Notary System.
Wintouch	Responds to the real needs of the market and allow a greater return on investment, specifically in clinics and hotels.
Valuekeep	Supports companies in managing assets more effectively and optimizing all the maintenance processes.
ZoneSoft	Software solution for catering, commerce and mobility.
Bizdocs	Smart Document Management Solution, which helps maintaining documentation up-to-date.

Appendix 7: Pontual's Profit and Losses Statement

Unconsolidated Accounts	31/12/2020	31/12/2019	31/12/2018	31/12/2017	31/12/2016
Income statement					
Operating revenue / turnover	4,868,805	4,219,042	2,925,403	2,362,526	2,081,566
Sales	4,816,235	4,182,525	2,918,929	2,357,479	2,030,465
Cost of goods sold	n.a.	n.a.	n.a.	n.a.	n.a.
Gross profit	n.a.	n.a.	n.a.	n.a.	n.a.
Other operating expenses	n.a.	n.a.	n.a.	n.a.	n.a.
Operating P/L	235,408	40,889	136,472	139,634	53,790
Financial revenue	0	0	0	1	0
Financial expenses	3,300	2,538	2,727	4,282	3,750
Financial P/L	-3,300	-2,538	-2,727	-4,281	-3,750
P/L before tax	232,108	38,351	133,745	135,353	50,040
Taxation	29,341	23,343	35,766	27,020	14,213
P/L after tax	202,767	15,007	97,979	108,333	35,827
Extraordinary revenue	n.a.	n.a.	n.a.	n.a.	n.a.
Extraordinary expenses	n.a.	n.a.	n.a.	n.a.	n.a.
Extraordinary P/L	n.a.	n.a.	n.a.	n.a.	n.a.
P/L for period	202,767	15,008	97,979	108,333	35,827
Material costs	1,287,893	942,458	845,154	756,099	735,726
Cost of employees	617,163	938,121	814,833	702,493	753,720
Depreciation	45,237	67,588	61,947	59,598	48,765
Other operating items	2,770,033	2,229,986	1,066,996	704,703	489,565
Interest paid	3,300	2,567	2,984	4,282	3,750
Cash flow	248,004	82,596	159,926	167,931	84,592
Added value	897,808	1,046,626	1,013,509	901,726	856,275
EBIT	235,408	40,889	136,472	139,634	53,790
EBITDA	280,645	108,477	198,419	199,232	102,555

Appendix 8: PESTLE Analysis

Political Factors	*Industry Regulations*: The conformity with specific industry regulations is perceived as clearance for software companies, which may be important in the promotion of products and services (Mitchell, n.d.). In terms of regulations, the International Organization for Standardization (ISO) and the Organization for the Advancement of Structured Information Standards (OASIS) provide insightful guidelines and define standard requirements for the software industry. This organizations have strict membership requirements. Members should develop their products to a specific level of quality and care, as while participating in several training sessions and evaluation events (Mitchell, n.d.).
Economic Factors	*Tax Benefits:* In terms of tax policy, Portugal has a special tax scheme to encourage investment that applies to businesses that engage in IT consulting, programming, data processing, and other similar activities (Portal dos Incentivos, n.d.). For IT-related firms, this regime provides tax incentives such as income tax deductions and ease of construction, purchase, or maintenance of assets.
Social Factors	*Education*: In Portugal, the participation of IT professionals in specific training courses related with programming, operating systems, and artificial intelligence, for example, is common and guarantees that the country's human capital is well prepared to solve complex business problems. In addition, soft skills such as communication, teamwork, problem-solving, and attention to detail are essential in the software sector in Portugal (Governo de Portugal 2021).
Technological Factors	Portugal is ranked 31st in the world on both the network readiness index and the innovation index (The Global Economy 2021), and it appears that most European economies have overplayed it. Internet connectivity, mobile pricing, international internet speed, and mobile app development are the important areas that Portugal can still improve. Nonetheless, Portugal is one of the greatest nations in the world when it comes to internet connection in schools, which may be considered as a positive indicator that future generations will be able to take the technological leap that Portugal requires (Knoema 2021).
Legal Factors	Data storage systems are also regulated. It is mandatory that data storage systems can prove to be redundant, robust, and available. It is advised that both online and off-site backups are protected, with the off-site backups kept in a separate place (Arnaut, Figueiredo, and Rocha 2021).

Environmental Factors	In terms of the ICT industry's ecological component, legal criteria for minimum efficiency have been applied to IT hardware only; nonetheless, software naturally impacts energy consumption as well. Recently, it was proven that a simple software update may reduce service live due to an increase in the consumption of energy produced by devices that are not in the power-saving mode (Stallmann 2018). As a result, the way software is conceived, developed, and implemented may have a significant influence on energy usage (Podder et al. 2020). The needed hardware is also important; the market may shift if software suppliers choose to choose more environmentally friendly technology. Their management of the world's largest software services and employment of massive quantities of technology for their data centers convey the idea that cloud providers are an excellent starting point.

Appendix 9: Wages of software employees in Portugal, by type of job

Type	Annual salary, EUR
Android	20 000
Front End	22 000
Back End	23 000
Big Data	25 000
Video Game Software Development	25 800
IOS	26 400
NLP	32 500
Cyber Security	33 000
SRE	35 000

Appendix 10: VRIO (Valuable, Rare, Inimitable, Organization wide support) Framework on Resources

Resources	Valuable	Rare	Inimitable	Organization-wide support
Headquarters	✓	✓	✗	✗
Owned Software solutions	✓	✗	✗	✗
Software network	✓	✓	✗	✗
Relationships	✓	✓	✗	✗
Professional Team	✓	✓	✗	✗
Structure	✓	✓	✓	✓
Culture	✓	✓	✓	✓
Financial Incentives	✓	✓	✓	✓

✓ - Pass the test

✗ - Fails the test

Appendix 11: VRIO Framework on Capabilities

Capabilities	Valuable	Rare	Inimitable	Organization-wide support
Ability to develop unique software solutions	Having unique product solutions that meet specific client´s needs ✓	Many companies in the ERP´s market develop own software solutions ✗	As many competitors possess this ability it is not inimitable ✗	Supported by all *Pontual*´s organizational departments, allow the company to customize solutions ✗
Ability to manage intermediary third parties	By using whether own- or third-party tools to develop solutions ✓	Many companies in the ERP´s market use own or third-party tools ✗	Many companies adopt the same partnerships to exercise normal activity ✗	Given the operational flexibility, *Pontual* needs to stablish these partnerships to operate efficiently ✗
Ability to provide a 360º operational solution	Ensuring hardware, software and consulting services, the company creates the necessary network to provide the best solution ✓	*Pontual* is not the only company in the market that provides customization and personalization ✗	Serving the same services to provide customization it is not hard to replicate ✗	Supported by all *Pontual*´s organizational departments and partnerships, allow the company to customize solutions ✗
Ability to expand to other business areas	Having financial capacity and negotiation power to expand through mergers and acquisitions ✓	Impossible to consider rare as this type of expansion rely on resources also available to any company ✗	Impossible to consider inimitable as this type of expansion rely on resources also available to any company ✗	Having all the necessary resources, the company can expand its horizons ✗
Ability to retain Know-How	By applying common network, the company retains unique experiences from dealing with different clients and partners ✓	Experience and know-how are only applicable to the company that empowers them ✓	Each experience is unique, therefore hard to replicate ✓	All further knowledge is possible to be retained by the company´s organizational resources ✓

Appendix 12: SWOT Analysis

Strengths	Weaknesses	Opportunities	Threats
- Ability to develop unique software solutions - Ability to retain know-how and gain experience from each client - Ability to provide a 360º operational solution - International partnerships - "Academia *Pontual*": platform that offers lessons to clients on how to operate with specific software systems	- Reduced ability to offer competitive wages to employees - Low purchasing power from the company's current clients - Medium size of the organization - Low budget for internationalization - Lack of activity focus, affecting the company's coordination and organization	- Labor force highly specialized and increasing in size - Accessibility and transparency of information - Increasing demand of online products and services - Increasing demand on IT consulting services due to digitalization - Innovation, technological transformation, and industrial automation	- Data breaches and concerns regarding user privacy - Labor costs/skill availability - Greater complexity in the IoT - Increasing competition - Programming automation affecting the demand for developers - In Portugal, the usage of internet services is still underdeveloped

Appendix 13: Global Readiness Test

Questions	Score
Is the foreign market like the domestic market?	4
Is the End User of the product in the foreign market the same as in the domestic market?	4,5
Is the product successful in the domestic market?	4
Is the product unique?	3
Does the product perform the same function in the foreign market as it does in the domestic market?	4,5
Are the product use conditions the same in the foreign market as they are in the domestic market?	3
Does the product need modifications to meet the needs of the customers in the foreign market?	2,5
What is the stage of the product's life cycle in the home market?	3
What is the stage of the product's life cycle in the international market?	3
Does the product require after-sales service?	3,5
Is the company in a position to provide after sales-service to its customers in the foreign market?	4
Would export orders hurt domestic sales?	5
Does the company have the financial resources necessary for export?	2,5
Does the company have in-house personnel with export related knowledge/experience?	5
Is international/global participation part of the Mission Statement of your company?	5
Is international expansion a part of the strategic business plan of the company?	5
Would the company be willing to investigate export market opportunities?	5
Would the company be willing to attend and/or participate in Trade Shows abroad?	3
Is the company willing to translate company literature into one or more foreign languages?	4
Are the company's top competitors involved internationally?	3
Is the industry highly regulated?	4
Is the company certified- ISO 9000 or other certification?	4
Final Score	**84,5/110 = 77%**

Appendix 14: Variables Description table

Demographics (3%)	
Population Growth (1%)	Every economy comes down to people and every country is naturally dependent on its population because they are what enterprises and other market players are made of. For those reasons, population growth is a factor that can weight in the decision of which country to internationalize.
Age dependency ratio, young (% of working-age population) (2%)	The age dependency ratio is a complement of the population growth indicator which gives more important demographic insights for B2B businesses like Pontual. The age distribution of a population is helpful for understanding potential future problems related with workforce shortage or market size limitations.
Market Growth and Receptivity (18%)	
Number of SMEs per capita (5%)	Considering that medium-size enterprises have between 50 and 249 employees; this indicator gives the number of SMEs in each country per 1,000 population. These types of enterprises are potential clients of Pontual and for that reason is important to consider countries in which the company can successfully apply its business model.

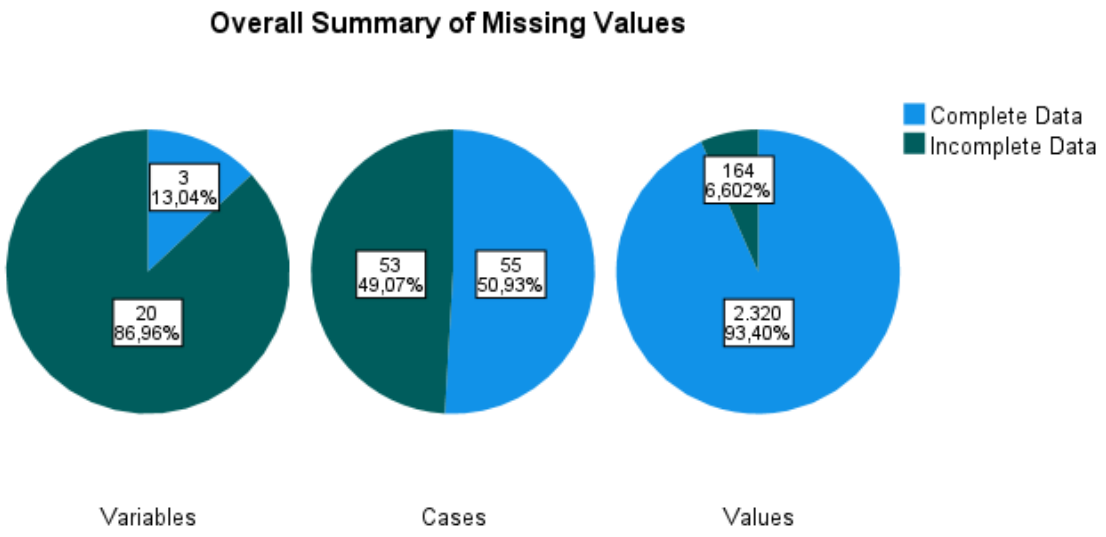
Resolving Insolvency Score (4%)	"The Resolving Insolvency indicator of the Doing Business Report studies the time, cost and outcome of insolvency proceedings involving domestic entities as well as the strength of the legal framework applicable to judicial liquidation" (World Bank 2021). This is a crucial indicator to consider if the company decides to establish a business unit outside Portugal once the internationalization process can go wrong.
GDP per capita (PPP) (3%)	"GDP is the sum of gross value added by all resident producers in the country" (World Bank 2021). This indicator gives insights regarding the size and performance of a given economy and for that reason is crucial to be considered in an internationalization process.
FDI, net inflows (4%)	Foreign direct investment is the direct investment equity flows in each country (World Bank 2021). This measure tells investors how attractive an economy might be to pursue and internationalization process.
GDP Growth (annual %) (2%)	GDP growth is an important variable to be analyzed when accessing the future potential of an economy (World Bank 2021). However, in the case a country GDP growth rate accelerates too much, it might be the case that the economy is overheating, and the central bank may raise interest rates. Nonetheless, a solid growth rate can only be seen as a positive sign and *Pontual* must strive to enter competitive economies.
Financial (15%)	
Financial Attractiveness (5%)	As many companies depend on credit to help finance their business activities or to invest in new projects, when entering a new market, interest rates are a fundamental measure used to evaluate a country financial attractiveness. Interest rates capture how efficiently banks allocate society's savings to its most productive uses. Therefore, high lending rates pose a challenge for firms as they can affect monetary policy transmission, inhibit financial development, and ultimately compromise financial stability.
Corporate Tax Rate (5%)	Corporate tax rates vary extensively by country due to various deductions, as government subsidies. Some countries can be considered tax havens for their low rates. Differences in tax rate generate incentives for businesses to earn less income in higher-tax jurisdictions and more in low-tax jurisdictions and thus being an important variable to consider when entering a new market.
Currency Inconvertibility and Transfer Restriction Risk (2%)	Transfer risk may arise when a local currency cannot be converted into another nation's currency (The Global Economy 2019). Currency convertibility is essential for foreign commerce as worldwide provided products/services must be paid in an approved common currency which may not be the consumer's home currency. Therefore, currency inconvertibility creates a commercial barrier with international countries that do not require the domestic currency.

Financial Transparency (3%)	To address the transparency in the financial sector the Financial Secrecy Index was used. This Index assigns a score to countries ranking them based on how strongly it is legal and financial system allow entities to hide and launder money extracted from worldwide (Tax Justice Network 2020). Transparency in the financial system is critical as resources are limited and investment needs to be allocated effectively to yield the highest returns.
Software Industry (23%)	
Expenditure on R&D (% of GDP) (6%)	R&D expenditure is "the money spent on creative work undertaken on a systematic basis to increase the stock of knowledge and the use of this knowledge to devise new applications" (OECD 2021). Research and Development is a fundamental piece in competitive businesses since it offers significant insights that can lead to upgrades in the efficiency of current processes, thus reducing costs. Mostly, this is a relevant variable for software companies as *Pontual* whose survival and prosperity depend on innovative products and services.
Firm Level Technology Absorption (8%)	Firm level Technology Absorption indicates how much innovative technology is absorbed by firms in a certain nation (Baller, Dutta, and Lanvin 2016). Better that create and provide new technology, is a company capability to take advantage of the available technology for efficiently and productively run its business. As firms' absorption capability is determined by internal (companies' sufficient resources that allow the utilization of new technology – machinery, human resources experience and knowledge) and external factors (any economic, political or social restriction that might be imposed to the use of the new technology) this is a relevant variable to consider when expanding to new market, especially if the company is reliant on new technology to survive on the competitive market.
GERD - Labour costs % (% of Total Costs (5%)	Gross domestic expenditure on R&D refers to all R&D expenditures made in the economy over a specific period (UNESCO 2016). Labor costs include the compensation of R&D staff and are, usually, the biggest portion on R&D costs, so nations consider it helpful to construct cost indices for R&D expenditure. As Software companies roughly depend on highly skilled personnel for technology deployment, high labor cost may be considered as a great risk when entering new markets.
Total R&D personnel (FTE) - Higher education (4%)	As the IT sector requires high education and technical employees to better provide product and service quality and the shortage of tech talent constitutes a major barrier in the deployment of a new technology, knowing the total available skilled personnel that a company can hire becomes crucial for the normal business functioning (UNESCO 2017).

Logistics (2%)	
Logistics Performance Index (2%)	The logistics performance index is a crucial indicator across all industries, even for software companies. Pontual's perception of a country's Software and IT Service industries can be inferred from this indicator once it evaluates the level of competence of market players in terms of logistics (The World Bank 2018). Has the logistics itself depends a lot on ERP software's, a high score, there is a high correlation between a high score on this factor and the level of software companies in the market.
Innovation (4%)	
Global Innovation score (4%)	The Global Innovation Score is an average of several sub-indexes scores (Global Innovation Index 2021). This indicator is crucial to access how committed a country is innovating but also represents if the investments in innovation made so far had a positive impact in the economy. Therefore, Pontual must strive to enter innovative countries given the specificities of the Software Industry given that the knowledge from operating outdoors will end up being extremely useful.
Country Risk (14%)	
Corruption Level (4%)	Corruption is more extensive in some countries than others (The Global Economy 2020). To evaluate country's corruption level many companies, resort to Corruption Perceptions Index, a measurement of the perceived corruption related to country's institutions and the decision processes of its authorities. Corruption is a risk for doing business in new markets as it increases volatility raising costs, obstructing resources efficient allocation, and endangering a company's objectives, credibility, and legitimacy.
Business Risk Rating (6%)	Business risk represents how exposed a company is to external/internal factors (consumer preferences, input costs, competition, economic climate, government regulations) that could lower its profits or lead to failure (Credendo 2021). When expanding into new markets any company should perform a country risk assessment to understand the impact of those risks in the operations and come up with measures to mitigate them.
Political Risk Medium/Long Term (4%)	Political risk occurs in any country and its level varies from country to country (Credendo 2021). When deciding to do business in another country, it is wise to investigate factors as government stability, presence of corruption, and the regulatory environment as any change in the political environment could impose barriers on foreign companies to operational activities or limit their access to financing and trade.

Economic Freedom (13%)	
Global Freedom Score (2%)	Global Freedom Score is an indicator, provided by the Freedom House, that rates the access to political rights and civil liberties of people (Freedom House 2021). Individual liberties range from the freedom of expression to the right to vote and equality before the law. Multinational companies tend to benefit from improved freedom of expression in the countries where they operate. In general, freedom is crucial because it creates a fair system for firms, aids stable corporate operations, prevents host community problems, and stimulates innovation.
Economic Freedom Index (6%)	Economic freedom is the capacity to operate freely in economic activities, to form businesses without unreasonable regulation, to own private property safely, and to save, invest, or purchase based on personal preferences (The Heritage Foundation 2021). The index of economic freedom assesses the effect of freedom and open markets globally and confirms the positive relationship between economic freedom and progress. When entering new markets, economic freedom is one variable that should be considered since equal opportunities for everyone contribute to facilitate business and financial transactions.
Cultural Distance (5%)	Cultural distance reflects differences in language, religions, lifestyle, values, and traditions between countries (Hofstede Insight 2021). Generally, cultural distance increases transaction costs due to the lack of information and uncertainty about distant cultures, thus undermining trade, cooperation, and investment. It is essential to understand how distant a culture is when entering a new market to prevent undesirable outcomes.

Appendix 15: Missing Data



Appendix 16: Standardization formula

- If a **high** number/percentage is better: $$X'_{ij} = \left[\frac{X_{ij} - min_i}{R_i} \times 99\right] + 1$$

- If a **low** number/percentage is better: $$X'_{ij} = \left[1 - \frac{X_{ij} - min_i}{R_i}\right] \times 99 + 1$$

Where:

X'_{ij} is the standardized value of country j on dimension I;
X_{ij} is the score of country j on dimension i;
min_i is the minimum value of dimension i;
R_i is the range of dimension i.

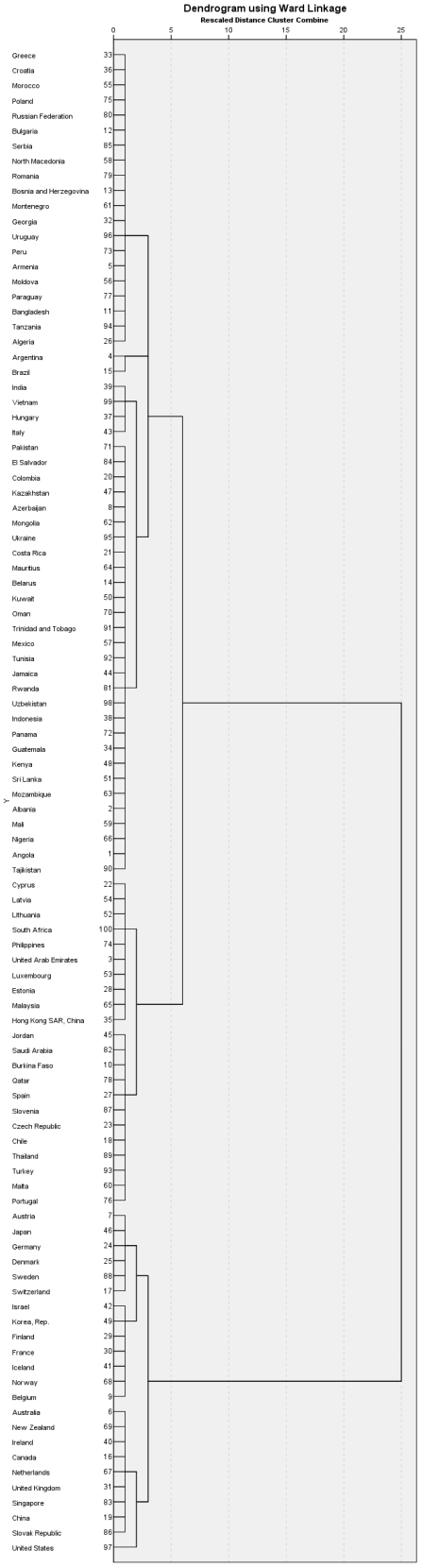
Appendix 17: Variables weights

Population Growth	*1%*
Age dependency ratio, young (% of working-age population)	*2%*
Number of SMEs per capita	*5%*
Resolving Insolvency Score	*4%*
GDP per capita(PPP)	*3%*
Foreign Direct Investemnts, net inflows	*4%*
GDP Growth rate	*2%*
Financial Attractiveness	*5%*
Corporate Tax Rate	*5%*
Currency Inconvertibility and Transfer Restriction Risk	*2%*
Financial Transparency	*3%*
Expenditure on R&D (% of GDP)	*6%*
Firm Level Technology Absorption	*8%*
GERD - Labour costs % (% of Total Costs)	*5%*
Total R&D personnel (FTE) - Higher education	*4%*
Logistics Performance Index	*2%*
Global Innovation Index	*12%*
Corruption Perception Index	*4%*
Business Risk Rating	*6%*
Political Risk Medium/Long Term	*4%*
Global Freedom Score	*2%*
Economic Freedom Index	*6%*
Cultural Distance to Portugal	*5%*
	100%

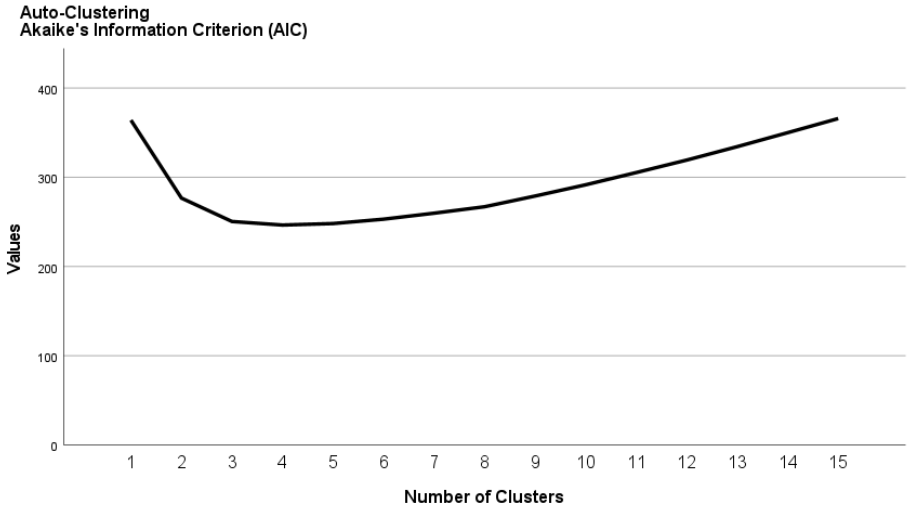
Appendix 18: Country Ranking

Country	Ranking
Sweden	1
United States	2
Finland	3
Switzerland	4
Germany	5
Japan	6
Singapore	7
Denmark	8
Norway	9
Canada	10
Luxembourg	11
United Kingdom	12
Iceland	13
Netherlands	14
Ireland	15
Israel	16
Austria	17
Korea, Rep.	18
Belgium	19
France	20
Australia	21
New Zealand	22
Estonia	23
Slovenia	24
Portugal	25
Hong Kong SAR, China	26
Czech Republic	27
China	28
Lithuania	29
Spain	30
United Arab Emirates	31
Chile	32
Poland	33
Malaysia	34
Malta	35
Bulgaria	36
Italy	37
Hungary	38
Indonesia	39
Latvia	40
Qatar	41
Cyprus	42
Slovak Republic	43
Uruguay	44
Romania	45
Rwanda	46
Croatia	47
Mauritius	48
Thailand	49
Greece	50
Turkey	51
Saudi Arabia	52
Serbia	53
Philippines	54
North Macedonia	55
South Africa	56
Costa Rica	57
Brazil	58
Azerbaijan	59
Russian Federation	60
Burkina Faso	61
Vietnam	62
Jordan	63
Georgia	64
India	65
Mexico	66
Oman	67
Morocco	68
Kazakhstan	69
Peru	70
Paraguay	71
Tanzania	72
Kenya	73
Uzbekistan	74
Jamaica	75
Colombia	76
Mongolia	77
Panama	78
Armenia	79
Bosnia and Herzegovina	80
El Salvador	81
Albania	82
Montenegro	83
Trinidad and Tobago	84
Kuwait	85
Argentina	86
Belarus	87
Sri Lanka	88
Guatemala	89
Pakistan	90
Tunisia	91
Bangladesh	92
Moldova	93
Mozambique	94
Ukraine	95
Mali	96
Nigeria	97
Algeria	98
Tajikistan	99
Angola	100

Appendix 19: Dendrogram



Appendix 20: Akaike's Information Criterion line graph



Appendix 21: Cluster analysis solution

CLUSTER 1	CLUSTER 2	CLUSTER 3	CLUSTER 4	CLUSTER 5	CLUSTER 6
Angola	United Arab Emirates	Argentina	Armenia	Australia	Austria
Albania	Burkina Faso	Brazil	Bangladesh	Canada	Belgium
Azerbaijan	Chile		Bulgaria	China	Switzerland
Belarus	Cyprus		Bosnia and Herzegovina	United Kingdom	Germany
Colombia	Czech Republic		Algeria	Ireland	Denmark
Costa Rica	Spain		Georgia	Netherlands	Finland
Guatemala	Estonia		Greece	New Zealand	France
Hungary	Hong Kong SAR, China		Croatia	Singapore	Iceland
Indonesia	Jordan		Morocco	Slovak Republic	Israel
India	Lithuania		Moldova	United States	Japan
Italy	Luxembourg		North Macedonia		Korea, Rep.
Jamaica	Latvia		Montenegro		Norway
Kazakhstan	Malta		Peru		Sweden
Kenya	Malaysia		Poland		
Kuwait	Philippines		Paraguay		
Sri Lanka	Portugal		Romania		
Mexico	Qatar		Russian Federation		
Mali	Saudi Arabia		Serbia		
Mongolia	Slovenia		Tanzania		
Mozambique	Thailand		Uruguay		
Mauritius	Turkey				
Nigeria	South Africa				
Oman					
Pakistan					
Panama					
Rwanda					
El Salvador					
Tajikistan					
Trinidad and Tobago					
Tunisia					
Ukraine					
Uzbekistan					
Vietnam					

Appendix 22: Selected Cluster table

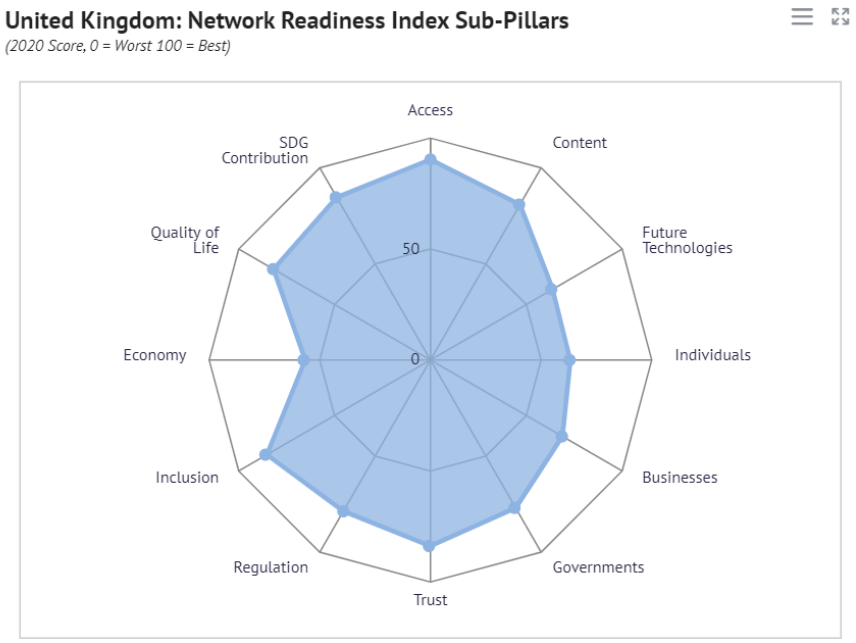
Selected Cluster 6#	Ranking
Austria	17
Belgium	19
Switzerland	4
Germany	5
Denmark	8
Finland	3
France	20
Iceland	13
Israel	16
Japan	6
Korea, Rep.	18
Norway	9
Sweden	1

Appendix 23: PESTLE framework – United Kingdom

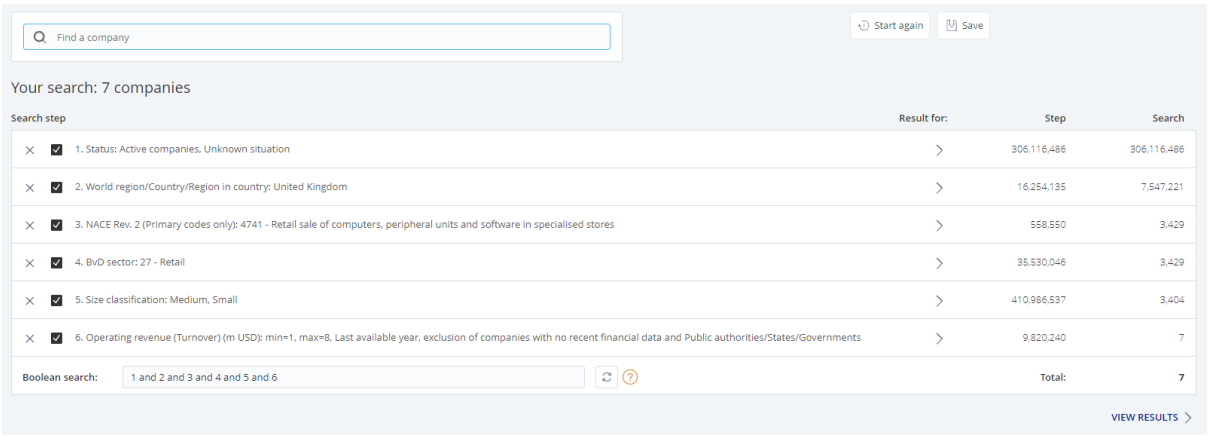
PESTLE – United Kingdom	
Political	• Government led by the Prime Minister Boris Johnson is currently stable • Brexit raises uncertainty on future trade agreements between the UK and EU (Stratis 2021) • Increasing bureaucracy for new companies and foreign workers
Economic	• Expansionist economic measures being taken to strength the economy • Good economic recovery from covid recession • The official currency is the British Pound, different from Portuguese official currency (Euro)
Sociological	• Population of 67,22 million people in 2020. • Great Education Level: **4th best** European country in the number of doctorate degrees per 1,000 persons (Rathenau 2021) • Diverse work environment (GOV.UK n.d.)
Technological	• **10th best economy** – Network Readiness Index 2020. • In 2020, United Kingdom was considered the **4th most innovative country** in the world – Innovation Index according to The Global Economy (The Global Economy 2021) • The United Kingdom accounts for 16.3% of the European software market value (MarketLine, 2021)
Legal	• The UK **ranks 20th** in the National Cybersecurity Index (NCSI 2020). Outperformed by several European economies. • Developed Patent Laws in the United Kingdom

Environmental	• The United Kingdom is **the first G20** country to mandate large business to disclose their climate risks and opportunities, announced after COP26 climate conference (Segal 2021). • Software Business is dependent on energy and United Kingdom and its energy companies is committed to the sustainable agenda (Gov.uk 2021)

Appendix 24: Detailed analysis network readiness index 2020



Appendix 25: Orbis search criteria



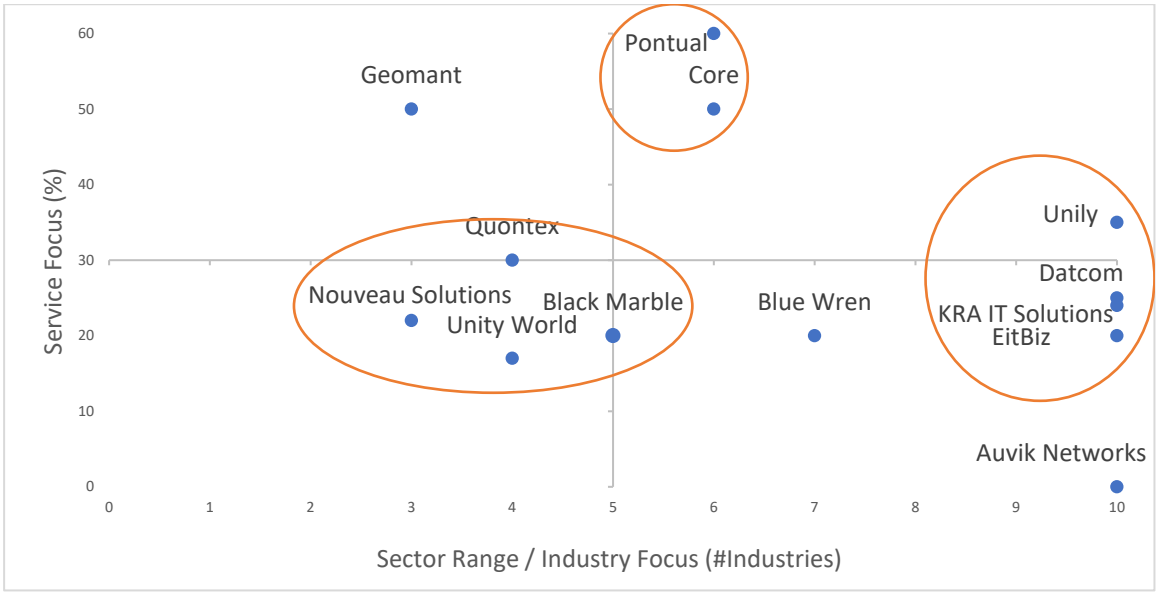
Appendix 26: Competitor's Information

Auvik Networks	**Number of employees:** 50 – 200 (medium size company) **Business Model:** It is a cloud-based networking management and monitoring software in which small businesses can automate time-consuming tasks. **Website:** https://www.auvik.com/

Black Marble	**Number of employees:** 10-49 (small size company) **Business Model:** The company develops solutions across the Microsoft Platform. Its services are mostly targeted to five specific industries: Business services, Education, financial services, government, and media. **Website:** https://blackmarble.com/
Blue Wren	**Number of employees:** 10-49 (small size company) **Business Model: C**reates bespoke software solutions to help business overcoming common challenges. **Website:** https://www.bluewren.co.uk/
Core Technology	**Number of employees:** 50 - 249 (medium size company) **Business Model:** Offers services around the entire cloud platform. Its main service is custom software development and government is the industry where the company is focused the most. **Website:** https://www.core.co.uk/
Datcom	**Number of employees:** 10-49 (small size company) **Business Model: :** IT partner enterprise that provides network support and cloud solutions to its clients including software, storage, servers, and databases. **Website:** https://datcom.co.uk/
EitBiz	**Number of employees:** 50 - 249 (medium size company) **Business Model:** EitBiz is an American bespoke software developer with more than 15 years of expertise that exists to take care of every aspect of the IT ecosystem of its clients. **Website:** https://www.eitbiz.com/
Geomant	**Number of employees:** 50 - 249 (medium size company) **Business Model:** A innovative software developer specialized in communication solutions. **Website:** https://www.geomant.com/
KRA IT Solutions	**Number of employees:** 2-10 (small size company) **Business Model:** Manages the entire software life cycle and works on helping customers detecting critical improvement points in their current software. **Website:** https://krasolutions.com/#

Nouveau Solutions	**Number of employees:** 10-49 (small size company) **Business Model:** Designs tailormade systems that address each client's needs. The company is focused on the information technology and hospitality industries. **Website:** https://www.nouveau.co.uk/
Quontex	**Number of employees:** 50-249 (medium size company) **Business Model:** Technology consulting and software development company that operates with expertise on developing solutions for start-ups and SME's. **Website:** https://quontex.co/
Unily	**Number of employees:** 50-249 (medium size company) **Business Model:** Software development company that aims to establish long-term relationships with its clients. The company strategy is to be present in several industries rather than focusing on developing specific products. **Website:** https://www.unily.com/
Unity World	**Number of employees:** 25-49 (small size company) **Business Model:** Among an extensive amount of IT services (cloud services, wholesale communications, etc), this British company is a specialist in bespoke software development with the aim of reaching business automation of its clients (small businesses) through simpler pathways **Website:** https://unity.world/

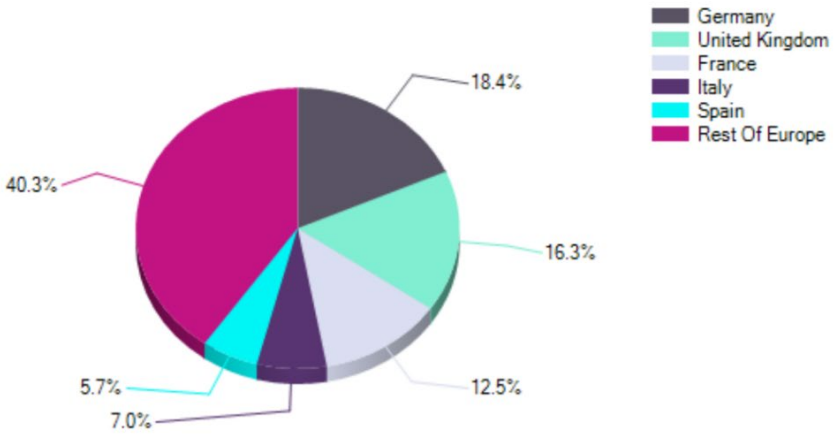
Appendix 27: Strategic Group Analysis Map



Appendix 28: Comparative analysis of the two main competitors

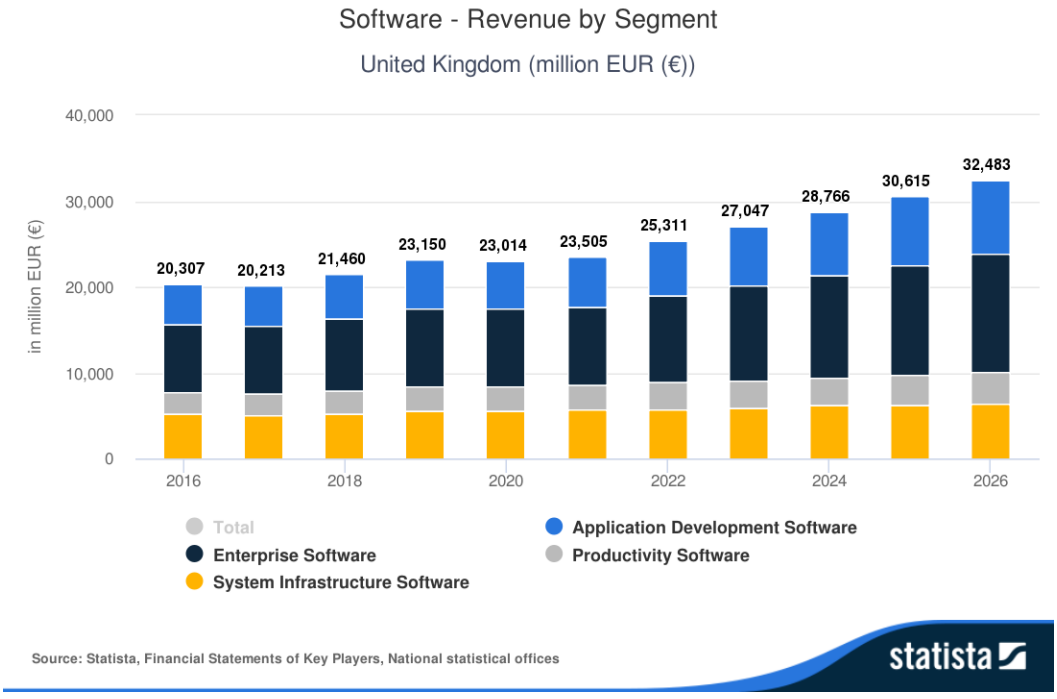
Company	Strengths	Weaknesses
Core	• Clear focus on bespoke software development. • Microsoft Gold Partner (increases brand recognition). • Its solutions are verified by governmental agencies. The official entity UK trade & Investment is one of the main clients of Core (increases brand reliability) • Talented and experienced software development teams. • Strong website	• Its solutions are limited to Microsoft software.
Blue Wren	• Rapid delivery and deployment of solutions. • Strong website • High notoriety not also in the bespoke software development but also IT managed Services solutions and Web Development	• Little experience and expertise when compared with Core and Pontual: company founded in 2010.
Pontual	• Talented and experienced software development teams. • Experienced company: founded in 1993. • Sounded partnerships (Primavera, Sage, PHC) • Internal platform "Academia *Pontual*": offers training to its employees.	• Little international experience and no presence in English speaking markets. • Website needs further development and English translation • Low Budget for internationalization • No budget for marketing campaigns

Appendix 29: United Kingdom software market geography segmentation: % share, by value, 2020

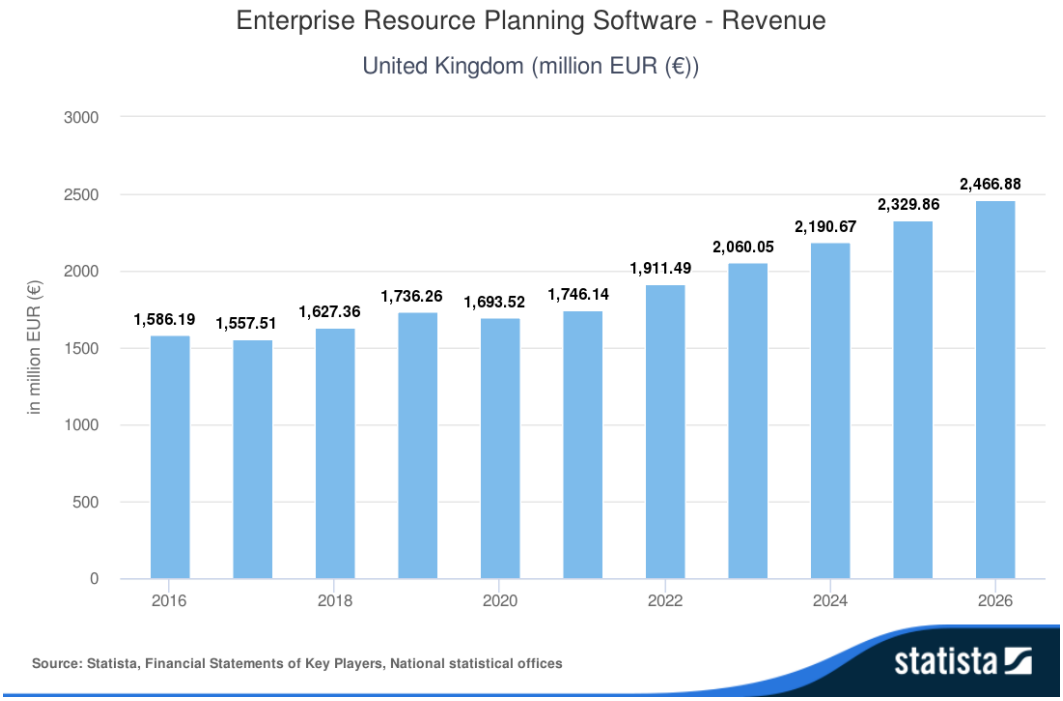


SOURCE: MARKETLINE | MARKETLINE

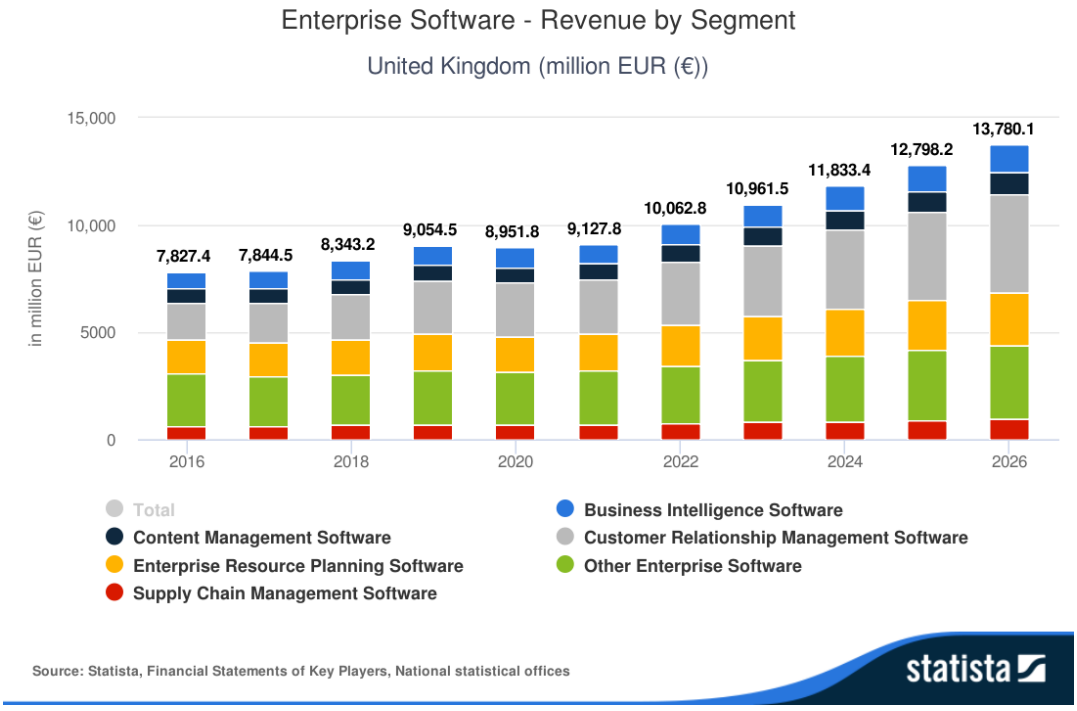
Appendix 30: British Software market revenue 2020



Appendix 31: British ERP Software market revenue 2021



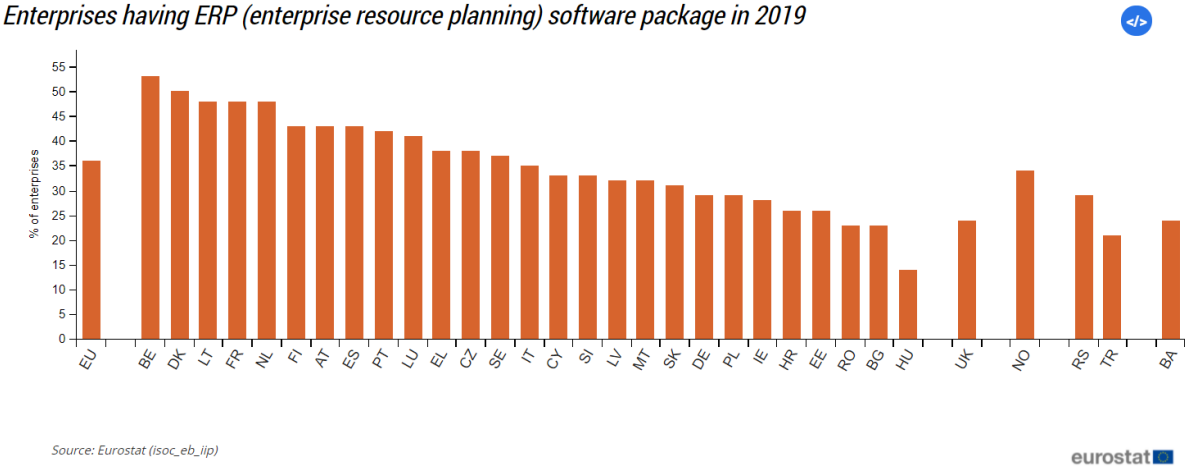
Appendix 32: British Enterprise Software market revenue 2020



Appendix 33: Market Share Pontual - Portugal

Revenue Pontual 2020 - Portugal	4,82 million EUR
ERP Software – Percentage of Sales	60%
Revenue Pontual 2020 ERP Software - Portugal	(4,82 × 60%) = 2,89 million EUR
Market Revenue ERP Software - Portugal	44,71 million EUR
Market Share of ERP Solutions 2020 - Portugal	2,89 ÷ 44,71 = **6,46%**

Appendix 34: Enterprises having ERP software package in 2019



Appendix 35: Assumptions considered to compute Company Sales Potential

Assumption 1 (Market Size and Level of Competition): According to Statista, the British ERP Software market was in 2020, approximately 38 times bigger than the Portuguese ERP Software market (1693 million EUR ÷ 44,71 million EUR) which can, at a first sight, appear to be a positive impact in *Pontual*'s potential market share in the UK once a bigger market brings more opportunities. Nonetheless, *Pontual* will not benefit from this impact since the company considers to be easier to internationalize for smaller markets (Pontual, n.d.) and the UK is the second biggest in Europe (as seen before). For these reasons, the market share negative impact will not be very significant. In terms of competition, the number of medium enterprises in both countries was used as a proxy for comparison purposes (even though *Pontual* operates in a specific industry). According to Statista, in 2020, the number of medium size companies in the UK was almost 7 times bigger than in Portugal (5598 in Portugal and 36000 in the UK). For this reason, the competition negatively affects the market share of *Pontual* in the UK by the factor of **1/7**.

Assumption 2 (Enterprises having ERP): *Pontual*'s strategy is to target small enterprises that don't use ERP solutions yet (Pontual, n.d.). The United Kingdom's software market is far behind other economies in terms of the percentage of companies having ERP software package: In 2019, 76% of British enterprises did not have ERP software package and only 58% of the Portuguese companies were lacking ERP solutions (Appendix 34). Naturally, this leads to a positive impact in *Pontual*'s market share in the British market once there are more clients to target (Eurostat 2019). For this reason, the Portuguese market share will be increase by being multiplied by the factor **76/58** that marks the positive impact of operating in the United Kingdom when compared with operating in Portugal. The values of 2019 were used as a proxy due to lack of data for 2020.
Assumption 3 (Reputation and 30 years of experience): Assuming *Pontual* will enter a market where the company has no reputation, its market share needs to be impacted negatively when compared with the market share in the Portuguese market. For this reason and given that *Pontual* has 30 years of experience in Portugal, the new market share can be considered as **1/30** of the current one. This factor assumes *Pontual* gained, on average, the same reputation and market share each year.
Assumption 4 (Brexit influence on business): EU membership lowers investment and trade costs. According to a study from the Centre for Economic Performance, the EU membership is a positive factor influencing international trade among EU countries. The study shows that because of Brexit, FDI inflows to the UK will reduce almost 22%, meaning the United Kingdom is 22% less attractive than other EU countries because of Brexit. The opportunity cost of entering the UK must be considered and for this reason the market share will be impacted by the factor of 78/100. More than the investment, the uncertainty around time and effort spent on bureaucratic affairs also impacts the entrance on UK once Brexit created a complete new set of practices, rules, and obligations.
Assumption 5 (Revenue): The sales potential was computed by multiplying the market share of *Pontual* in the United Kingdom by the ERP software market revenue for 2025 in the British Market which accounted for 2329,9 million EUR.

Appendix 36: Company Sales Potential 2025 – United Kingdom

Market Share of ERP Solutions - Portugal	**6,46%**
Impact of Market Size of Level of Competition	1/7
Impact of Enterprises having ERP	76/58
Impact of Reputation and 30 years' experience	1/30
Impact of Brexit	78/100
Market Share of ERP Solutions – United Kingdom	**0,0314%**
Company Sales Potential 2025 – United Kingdom	**2329,9 million EUR x 0,000314 = 0,732 million EUR**

Appendix 37: How to start a business in the United Kingdom

Steps to start a business in the United Kingdom
Step 1 – Confirm that the company can legally start a business in the UK.
Step 2 – Apply for the right visa.
Step 3 – Write a business plan. *Pontual* can download the official template from the UK government official website.
Step 4 – Define a structure and assure it complies with the legal terms associated to it.
Step 5 – Define an official business name and address.
Step 6 – Register with HM Revenue and Customs (HMRC) for tax affairs.
Step 7 - Register at Companies House (if establishing a limited company).
Step 8 – Comply with the Provision of Services Regulations 2009 directive.

Appendix 38: Visas for foreigners wishing to set up a business in the UK

Visas for foreigners
Innovation visa – For companies wishing to establish an innovating business in the UK. The business idea must be completely new and unique. The investor needs to have a budget of, at least, £ 50 000 and disclose what is the origin of the investment. The individual must also hold English speaker certification with at least the level B2 according to the Common European Framework scale. The innovation visa costs £1 021 plus a healthcare surcharge.
Start-Up visa – Similar in the extend that the individual must have a unique and innovative business idea. No minimum budget is required. The application fee is only £363, and the English language certification is also a requirement.
Global Talent visa– The individual must have more and 18 years and be a leader or potential leader in one of three fields: academia, arts and culture or digital technology. It is mandatory that a relevant authority certifies the application.

Appendix 39: How to open a branch or subsidiary in the United Kingdom

Steps to open a branch in the United Kingdom
Step 1 – Register as an overseas company – Companies House
Step 2 – Complete the official form: OS IN01
Step 3 – Pay the registration fee which accounts for £20

Appendix 40: Country Selection

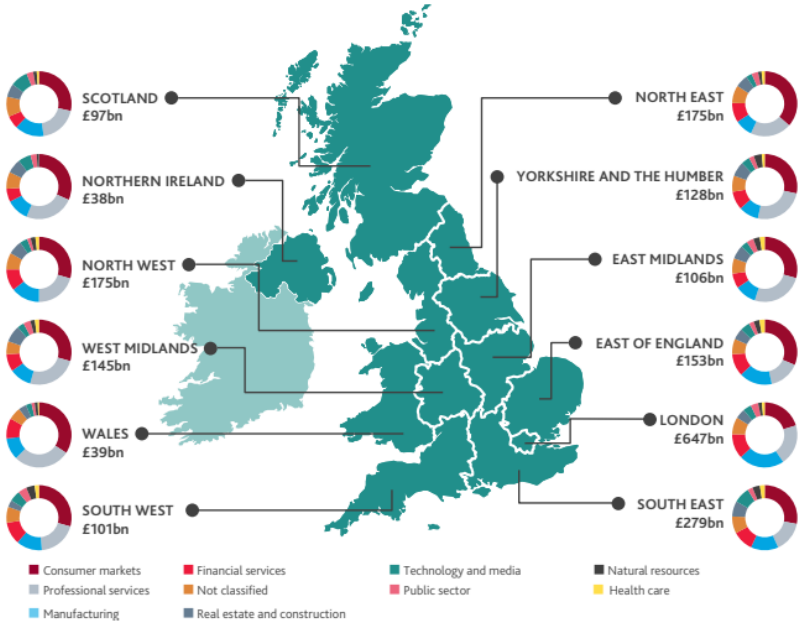
Country	Contacts (20%)	Competition (35%)	Sales Potential (30%)	Market Entry Restrictions (15%)	Weighted Average	Company's Preference
France	2	3	4	3	3,1	2º
Germany	3	1	4	3	2,6	5º
Sweden	3	4	2	4	3,2	4º
Switzerland	3	3	3	3	3	3º
United Kingdom	5	2	5	2	3,5	1º

Appendix 41: International entry strategy components

Appendix 42: United Kingdom regions

Region	Sub-region
England	Southeast
	Northwest
	London
	East of England
	Northeast
	West Midlands
	East Midlands
	Yorkshire and the Humber
	Southwest
Scotland	
Wales	
Northern Ireland	

Appendix 43: UK's turnover by region, top 5 sectors



Appendix 44: Industry turnover, contribution by top 5 sectors within the region

LONDON £647BN

TOP 5 SECTORS	NUMBER OF COMPANIES	TURNOVER £'000
Professional services	3,037	131,248,816
Financial services	2,737	130,676,050
Consumer markets	2,648	146,046,947
Technology and Media	1,724	79,342,967
Not classified	1,204	55,153,645

SOUTH EAST £279BN

TOP 5 SECTORS	NUMBER OF COMPANIES	TURNOVER £'000
Consumer markets	1,601	78,317,363
Professional services	961	42,367,071
Manufacturing	868	38,074,431
Financial services	584	28,770,744
Technology and Media	582	23,457,819

NORTH WEST £175BN

TOP 5 SECTORS	NUMBER OF COMPANIES	TURNOVER £'000
Consumer markets	1,174	51,499,903
Manufacturing	882	35,819,325
Professional services	634	24,940,427
Financial services	416	18,654,942
Real estate and construction	394	14,480,942

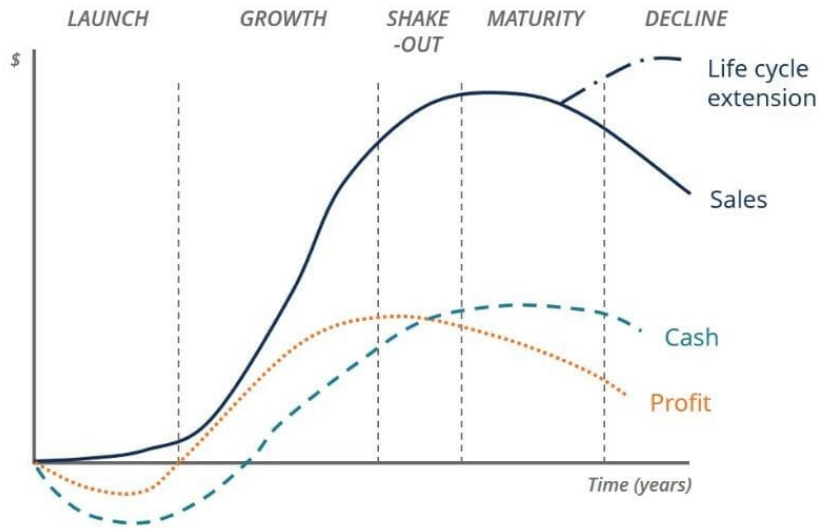
Appendix 45: EU SME definitions

Category	Headcount	Turnover	Balance SH. Total
Medium	< 250	£ 41 Million	£ 35.2 Million
Small	< 50	£ 8.2 Million	£ 8.2 Million
Micro	< 10	£ 1.7 Million	£ 1.7 Million

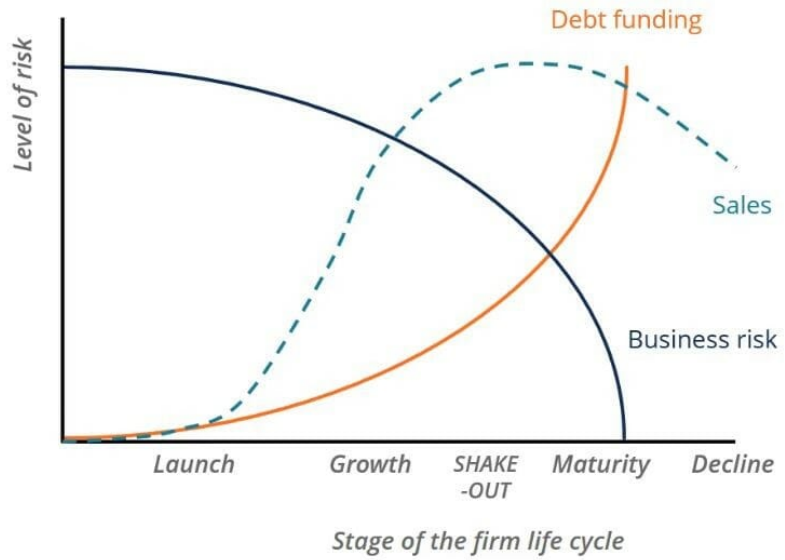
Appendix 46: Industrial classifications

Industry	**Code**
Agriculture	A
Mining and quarrying	B
Manufacturing	C
Utilities	D,E
Construction	F
Retail and wholesale	G
Transportation and storage	H
Accommodation and food	I
Information and communication	J
Finance and insurance	L
Professional and support	M,N
Government, education, health, and defense	O,P,Q
Other services	R,S,T,U

Appendix 47: Business life cycle



Appendix 48: Business risk cycle



Appendix 49: Potential segments

C – Manufacturing
L- Finance and insurance
O,P,Q - Government, education, health and defense

Segment	Geography	Size	Industry	Performance	Segment
1	London	Large	C	Growing	1
2	London	Large	C	Mature	2
3	London	Large	L	Growing	3
4	London	Large	L	Mature	4
5	London	Large	O,P,Q	Growing	5
6	London	Large	O,P,Q	Mature	6
7	London	Medium	C	Growing	7
8	London	Medium	C	Mature	8
9	London	Medium	L	Growing	9
10	London	Medium	L	Mature	10
11	London	Medium	O,P,Q	Growing	11
12	London	Medium	O,P,Q	Mature	12
13	London	Small	C	Growing	13
14	London	Small	C	Mature	14
15	London	Small	L	Growing	15
16	London	Small	L	Mature	16
17	London	Small	O,P,Q	Growing	17
18	London	Small	O,P,Q	Mature	18
19	North West	Large	C	Growing	19
20	North West	Large	C	Mature	20

21	North West	Large	L	Growing	21
22	North West	Large	L	Mature	22
23	North West	Large	O,P,Q	Growing	23
24	North West	Large	O,P,Q	Mature	24
25	North West	Medium	C	Growing	25
26	North West	Medium	C	Mature	26
27	North West	Medium	L	Growing	27
28	North West	Medium	L	Mature	28
29	North West	Medium	O,P,Q	Growing	29
30	North West	Medium	O,P,Q	Mature	30
31	North West	Small	C	Growing	31
32	North West	Small	C	Mature	32
33	North West	Small	L	Growing	33
34	North West	Small	L	Mature	34
35	North West	Small	O,P,Q	Growing	35
36	North West	Small	O,P,Q	Mature	36
37	South East	Large	C	Growing	37
38	South East	Large	C	Mature	38
39	South East	Large	L	Growing	39
40	South East	Large	L	Mature	40
41	South East	Large	O,P,Q	Growing	41
42	South East	Large	O,P,Q	Mature	42
43	South East	Medium	C	Growing	43
44	South East	Medium	C	Mature	44
45	South East	Medium	L	Growing	45
46	South East	Medium	L	Mature	46
47	South East	Medium	O,P,Q	Growing	47
48	South East	Medium	O,P,Q	Mature	48
49	South East	Small	C	Growing	49
50	South East	Small	C	Mature	50
51	South West	Small	L	Growing	51
52	South West	Small	L	Mature	52
53	South West	Small	O,P,Q	Growing	53
54	South West	Small	O,P,Q	Mature	54

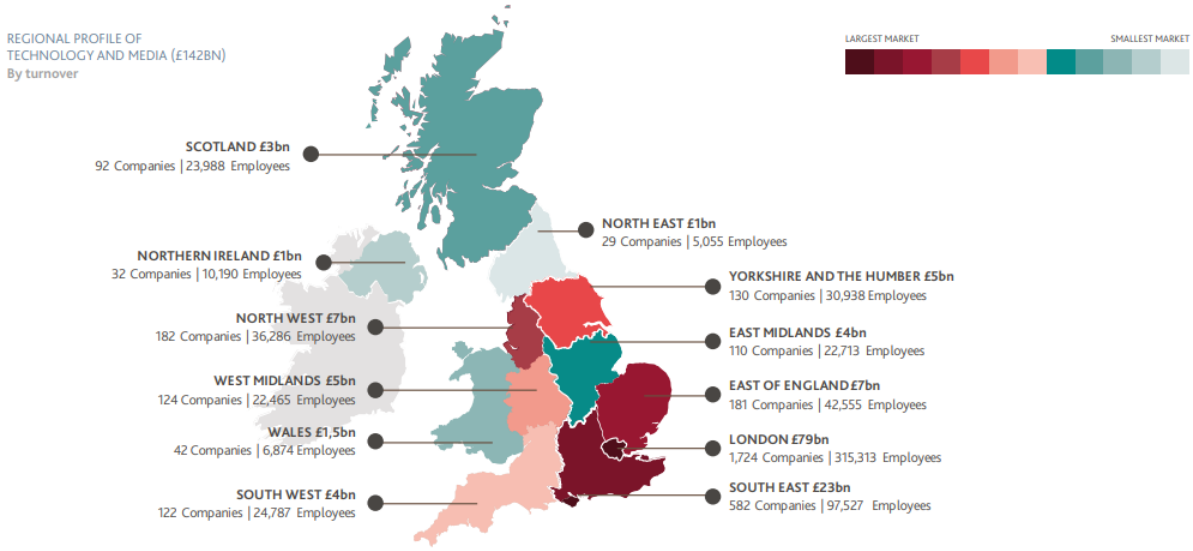
Appendix 50: Financial services sector regional profile

REGION	NUMBER OF COMPANIES	NUMBER OF EMPLOYEES	TURNOVER (000S)
London	2,737	438,916	£130,676,050
South East (England)	584	152,570	£28,770,744
North West (England)	416	106,109	£18,654,942
Yorkshire and The Humber	287	70,125	£11,688,696
West Midlands (England)	283	93,147	£12,486,759
East of England	272	88,269	£11,718,283
Scotland	230	17,775	£6,154,507
South West (England)	224	59,065	£11,221,053
East Midlands (England)	201	73,999	£8,075,350
North East (England)	99	28,366	£4,504,168
Wales	81	15,690	£2,440,065
Northern Ireland	67	19,524	£3,150,942
GRAND TOTAL	**5,481**	**1,163,555**	**£249,541,559**

Appendix 51: Real Estate and construction sector regional profile

REGION	NUMBER OF COMPANIES	NUMBER OF EMPLOYEES	TURNOVER (000S)
London	708	72,966	£31,983,971
South East (England)	516	71,931	£21,429,686
East of England	400	53,735	£17,014,796
North West (England)	394	57,107	£14,480,942
Yorkshire and The Humber	256	39,883	£10,233,133
West Midlands (England)	248	30,848	£9,438,192
Scotland	230	52,316	£9,616,218
South West (England)	221	32,248	£8,007,391
East Midlands (England)	208	26,317	£7,760,408
Northern Ireland	115	12,824	£4,188,764
Wales	100	12,942	£3,930,750
North East (England)	96	19,370	£4,095,130
GRAND TOTAL	**3,492**	**482,487**	**£142,179,381**

Appendix 52: Technology and media sector regional profile



Appendix 53: Analysis of Potential segments

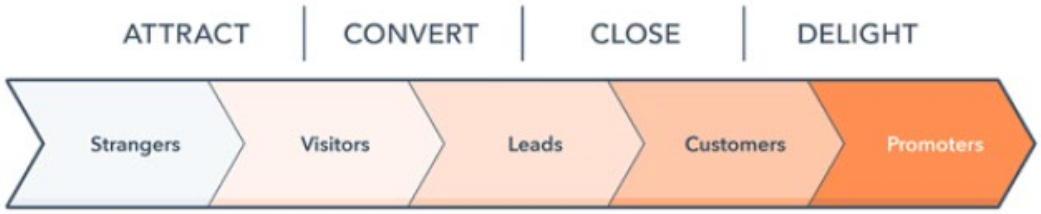
C – Manufacturing
L- Finance and insurance
O,P,Q - Government, education, health and defense

- Excluded segments - Potential segments - Ideal segment

Segment	Geography	Size	Industry	Performance	Segment
1	London	Large	C	Growing	1
2	London	Large	C	Mature	2
3	London	Large	L	Growing	3
4	London	Large	L	Mature	4
5	London	Large	O,P,Q	Growing	5
6	London	Large	O,P,Q	Mature	6
7	London	Medium	C	Growing	7
8	London	Medium	C	Mature	8
9	London	Medium	L	Growing	9
10	London	Medium	L	Mature	10
11	London	Medium	O,P,Q	Growing	11
12	London	Medium	O,P,Q	Mature	12
13	London	Small	C	Growing	13
14	London	Small	C	Mature	14
15	London	Small	L	Growing	15
16	London	Small	L	Mature	16
17	London	Small	O,P,Q	Growing	17

18	London	Small	O,P,Q	Mature	18
19	North West	Large	C	Growing	19
20	North West	Large	C	Mature	20
21	North West	Large	L	Growing	21
22	North West	Large	L	Mature	22
23	North West	Large	O,P,Q	Growing	23
24	North West	Large	O,P,Q	Mature	24
25	North West	Medium	C	Growing	25
26	North West	Medium	C	Mature	26
27	North West	Medium	L	Growing	27
28	North West	Medium	L	Mature	28
29	North West	Medium	O,P,Q	Growing	29
30	North West	Medium	O,P,Q	Mature	30
31	North West	Small	C	Growing	31
32	North West	Small	C	Mature	32
33	North West	Small	L	Growing	33
34	North West	Small	L	Mature	34
35	North West	Small	O,P,Q	Growing	35
36	North West	Small	O,P,Q	Mature	36
37	South East	Large	C	Growing	37
38	South East	Large	C	Mature	38
39	South East	Large	L	Growing	39
40	South East	Large	L	Mature	40
41	South East	Large	O,P,Q	Growing	41
42	South East	Large	O,P,Q	Mature	42
43	South East	Medium	C	Growing	43
44	South East	Medium	C	Mature	44
45	South East	Medium	L	Growing	45
46	South East	Medium	L	Mature	46
47	South East	Medium	O,P,Q	Growing	47
48	South East	Medium	O,P,Q	Mature	48
49	South East	Small	C	Growing	49
50	South East	Small	C	Mature	50
51	South West	Small	L	Growing	51
52	South West	Small	L	Mature	52
53	South West	Small	O,P,Q	Growing	53
54	South West	Small	O,P,Q	Mature	54

Appendix 54: Process of customer acquisition



Appendix 55: Example of Client Acquisition Strategy

Target Clients Capture Strategy (by steps)
1. The agents Daisy and Host Europe and the online marketing advertising play an important role, as the agents provide insights on marketing knowledge useful to reach out to potential clients, while the online marketing uses tools as social media, Google search and display adds, and Youtube and LinkedIn adds to promote the brand awareness and instigate customer curiosity.
2. To convert leads into clients, it is important to identify the customer's problems and bring innovative solutions that will create additional value for the client.
3. A follow-up of each situation is necessary to keep track of customers preferences.

Appendix 56: ERP Developments Time Estimation

Appendix 57: Revenue Estimation

	2025	2026	2027	2028	2029	2030
Number of employees direct labor	5	7	8	9	10	10
Number of available hours per year	8 750	12 250	14 000	15 750	17 500	17 500
Number of hours per project	139,00	139,00	139,00	139,00	139,00	139,00
Number of projects per year	31	46	56	66	78	81
Price per hour	90,00€	90,00€	90,00€	90,00€	90,00€	90,00€
Revenue Estimation	**387 810,00€**	**575 460,00€**	**700 560,00€**	**825 660,00€**	**975 780,00€**	**1 013 310,00€**
Revenue Growth Rate	-	*+48%*	*+22%*	*+18%*	*+18%*	*+4%*

Appendix 58: Cost Estimation – COGS

	2025	2026	2027	2028	2029	2030
Number of Software Developers	4	6	6	7	7	7
Number of Software Engineers	1	1	2	2	3	3
Average annual salary in Portugal - Software Developer	25 902€	25 902€	25 902€	25 902€	25 902€	25 902€
Average annual salary in Portugal - Software Engineer	29 946€	29 946€	29 946€	29 946€	29 946€	29 946€
COGS = Direct labor costs	**133 554,00€**	**185 358,00€**	**215 304,00€**	**241 206,00€**	**271 152,00€**	**271 152,00€**

Appendix 59: Cost Estimation – Personnel Costs

	2025	2026	2027	2028	2029	2030
Number of Technical Support Engineer	2	2	3	3	3	3
Number of Customer Service Manager	1	2	2	2	2	2
Number of Marketing Manager	1	2	2	2	2	3
Number of Regional Sales Manager	1	1	1	2	2	2
Average annual salary in Portugal - Technical Support Engineer	32 885€	32 885€	32 885€	32 885€	32 885€	32 885€
Average annual salary in Portugal - Customer Service Manager	30 157€	30 157€	30 157€	30 157€	30 157€	30 157€
Average annual salary in Portugal - Marketing Manager	25 434€	25 434€	25 434€	25 434€	25 434€	25 434€
Average annual salary in Portugal - Regional Sales Manager	46 500€	46 500€	46 500€	46 500€	46 500€	46 500€
Personnel Costs	**167 861,00€**	**223 452,00€**	**256 337,00€**	**302 837,00€**	**302 837,00€**	**328 271,00€**

Appendix 60: Cost Estimation – Marketing Costs

	2025	2026	2027	2028	2029	2030
Google Search	21 360 €	31 695 €	38 586 €	45 476 €	53 745 €	55 812 €
Google Display	1 800 €	2 671 €	3 252 €	3 832 €	4 529 €	4 703 €
Facebook Ads	8 100 €	12 019 €	14 632 €	17 245 €	20 381 €	21 165 €
Youtube Ads	300 €	445 €	542 €	639 €	755 €	784 €
LinkedIn Ads	6 312€	9 366 €	11 402 €	13 438 €	15 882 €	16 493 €
Online Marketing	37 872€	56 197€	68 414€	80 631€	95 291€	98 956€
Website Maintenance	4 320€	4 320€	4 320€	4 320€	4 320€	4 320€
Email Newsletter	9 000€	9 000€	9 000€	9 000€	9 000€	9 000€
Marketing Costs	**51 192,00 €**	**69 517,16 €**	**81 733,94 €**	**93 950,71 €**	**108 610,84 €**	**112 275,87 €**
Marketing Budget (in % of Revenues)	*13%*	*12%*	*12%*	*11%*	*11%*	*11%*

Appendix 61: Cost Estimation –Other Costs

	2025	2026	2027	2028	2029	2030
R&D	38 781€	57 546€	70 056€	82 566€	97 578€	101 331€
SG&A	11 161€	15 626€	17 858€	20 090€	21 206€	22 322€
Other Costs	**49 942,10€**	**73 171,54€**	**87 913,76€**	**102 655,98€**	**118 784,09€**	**123 653,20€**

Appendix 62: Forecasted P&L Statement

	2025	2026	2027	2028	2029	2030
Revenues	387 810€	575 460€	700 560€	825 660€	975 780€	1 013 310€
COGS	133 554€	185 358€	215 304€	241 206€	271 152€	271 152€
Gross Profit	**254 256,00€**	**390 102,00€**	**485 256,00€**	**584 454,00€**	**704 628,00€**	**742 158,00€**
Personnel Costs	167 861€	223 452€	256 337€	302 837€	302 837€	328 271€
Marketing Costs	51 192€	69 517€	81 734€	93 951€	108 611€	112 276€
R&D	38 781€	57 546€	70 056€	82 566€	97 578€	101 331€
SG&A	11 161€	15 626€	17 858€	20 090€	21 206€	22 322€
EBITDA (or Operational Profit)	**- 14 739,10€**	**23 961,30€**	**59 271,30€**	**85 010,31€**	**174 396,07€**	**177 957,93€**
Depreciations and Amortizations	7 120€	8 400€	9 680€	10 960€	12 240€	20 000€
EBIT	**- 21 859,10€**	**15 561,30€**	**49 591,30€**	**74 050,31€**	**162 156,07€**	**157 957,93€**
Taxes	0€	2 268€	9 414€	14 551€	33 053€	32 171€
Net Income	**- 21 859,10€**	**13 293,43€**	**40 177,13€**	**59 499,75€**	**129 103,30€**	**125 786,76€**

Appendix 63: Operational Risks

People Risks	*Knowledge Transfer:* Companies operating in the software industry are knowledge-based, strongly innovation-intensive organizations as the nature of their operations requires talented, high knowledgeable employees (Labafi 2017). Employee turnover is one of the persisting problems within companies. Turnover means that other company may gain knowledge through new hiring of experience and critical insights on its former organization projects and business methods (Hana and Lucie 2011). Besides the knowledge transfer, employee turnover also brings additional replacement costs. These not only imply salaries and new resources but also, includes hiring expenses, productivity loss, new training costs, etc (Sage 2013). Thus, loss of knowledge is a major threat for the former company.
System Risks	*Website Overcapacity:* Misjudging the amount of traffic in the company's website can lead to downtime risks on more demanding days. Downtime costs exceed 265 170 euros per hour for more than 81% of businesses. Furthermore, 65% of companies require more than one hour to recover from a collapse, resulting on the accumulation of missed orders. This might lead to the loss of possible future consumers. It is also known that 79% of visitors who have a poor experience with a website will not return to the it in the future (Queue-it, n.d.). Attending that the company's website is a primary tool for *Pontual* not only to advertise on its products and services but also to establish contact with its clients, it is important to attain the potential system risk of the website overcapacity as this might implies revenues and potential clients lost and poor customer experience.
External Risks	*Electricity costs:* The closer of the last coal power plant in Portugal (Larson 2021) might lead to an increase for the price of electricity in the next years, which might present an external risk for *Pontual* as they would have increased costs. Moreover, if *Pontual* needs to open new offices due to the growth of the operation, the impact of the higher cost of electricity can be even more noticeable.

Legal and Compliance Risks	*Certification:* Software certification allows an independent authority to verify the consistency and security of software systems without the need to rely on the usual methods used in the certification process (Denney and Fischer, n.d.). Despite Software Certification is not yet mandatory in the Portuguese software industry, it is strongly advised that organizations that have not done it yet, to start considering it as certification demonstrates the maturity and stability of the enterprise and assures project success. Furthermore, non-certified businesses find it difficult to compete with certified businesses, resulting in an increasing number of software development firms are seeking quality certifications (Morris 2007).

Appendix 64: Mitigation Plan

Measures	Impact
Employee Recognition	Recognition communicates gratitude for a worker's or a team's accomplishments and can be expressed in the form of incentives (employee appreciation programs). Employee recognition has been proved in several studies to improve the engagement and performance of employees as well as to enhance corporate value. Thus, an employee recognition program helps to mitigate possible underperformance risks, as the employees feel rewarded and recognized for their well-done work, besides helping to avoid employee turnover. To compete in the global workforce dynamic environment as the software industry, it is necessary to develop a recognition program (Sage 2013).
Training	Training programs are effective tools to decrease staff turnover and increase employee retention. Employees can develop the skills they need for new projects and challenges, or even a promotion within the firm, with the support of good training programs (Sage 2013). Besides helping with the risk employee turnover, training also increases employee performance by mitigating common human errors. Specialized training also prevents other types of operational risks as security breaches. Employees are one of the most prevalent ways for cyber criminals to gain access to data. Thus, to be protected against this threat and other sources of data breaches, personnel must be trained in cyber-attack security measures and have up-to-date information on this topic (Leaf, n.d.). Overall, training, despite costly, is an efficient method that prevents many operational risks.

Increase website capacity	By increasing the website capacity, the company can prevent major operational risks related to the increased traffic that might come with the company´s expansion for the UK´s market. It is important that the *Pontual´*s website can accommodate large workloads as this is very important tool in the operational daily bases as seen previously. By expanding the website capacity, the company will avoid possible formation of long queues besides preventing an overloading of the entire system which consequently inhibits poor customer experience, client's loss and revenues damage.
Keep the systems fully updated	To counteract security breaches, it is recommended that the company should invest in constant system upgrades to ensure that the system is secure and up-to-date. This is very important as failures, particularly in aging systems remain a persistent cause of server and application crashes. In the event of a disaster, having the data backed up and update is essential to reduce idle time as well as data and financial losses (Leaf, n.d.).

Appendix 65: Capital Expenditure and Salvage Value

	2024	2025	2026	2027	2028	2029	2030
Number of computers	10	2	2	2	2	11	0
Number of monitors	20	4	4	4	4	22	0
Website (expansion of client area and translation)	3 600.00€	0.00€	0.00€	0.00€	0.00€	3 600.00€	0.00€
Average cost per computer	1 200.00€	1 200.00€	1 200.00€	1 200.00€	1 200.00€	1 200.00€	1 200.00€
Average cost per monitor	1 000.00€	1 000.00€	1 000.00€	1 000.00€	1 000.00€	1 000.00€	1 000.00€
CAPEX	**35 600.00€**	**6 400.00€**	**6 400.00€**	**6 400.00€**	**6 400.00€**	**38 800.00€**	**- €**
Depreciation	0.00€	7 120.00€	8 400.00€	9 680.00€	10 960.00€	12 240.00€	20 000.00€
Cummulative Depreciation	0.00€	7 120.00€	15 520.00€	25 200.00€	36 160.00€	48 400.00€	68 400.00€
Salvage Value	**- €**	**- €**	**- €**	**- €**	**- €**	**- €**	**31 600.00€**

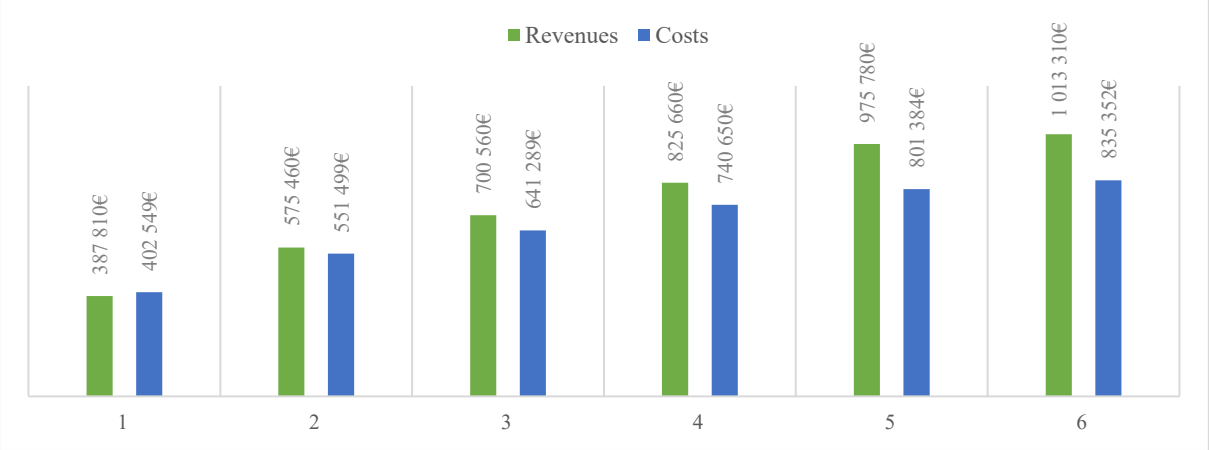
Appendix 66: Net Working Capital

	2024	2025	2026	2027	2028	2029	2030
Average Collection Period		107	107	107	107	107	107
Sales		387 810,00€	575 460,00€	700 560,00€	825 660,00€	975 780,00€	1013 310,00€
Accounts Receivable	**- €**	**113 686,77€**	**168 696,49€**	**205 369,64€**	**242 042,79€**	**286 050,58€**	**297 052,52€**
Average Holding Period		0	0	0	0	0	0
COGS		133 554,00€	185 358,00€	215 304,00€	241 206,00€	271 152,00€	271 152,00€
Inventories	**- €**	**- €**	**- €**	**- €**	**- €**	**- €**	**- €**
Average Payable Period		27	27	27	27	27	27
COGS		133 554,00€	185 358,00€	215 304,00€	241 206,00€	271 152,00€	271 152,00€
Accounts Payable	**- €**	**9 879,34€**	**13 711,41€**	**15 926,60€**	**17 842,64€**	**20 057,82€**	**20 057,82€**

	2024	2025	2026	2027	2028	2029	2030
Accounts Receivable	0,00€	113 686,77€	168 696,49€	205 369,64€	242 042,79€	286 050,58€	297 052,52€
Inventories	0,00€	0,00€	0,00€	0,00€	0,00€	0,00€	0,00€
Accounts Payable	0,00€	9 879,34€	13 711,41€	15 926,60€	17 842,64€	20 057,82€	20 057,82€
Net Working Capital	**- €**	**103 807,43€**	**154 985,08€**	**189 443,05€**	**224 200,16€**	**265 992,76€**	**276 994,70€**
(Δ) NWC	**- €**	**103 807,43€**	**51 177,65€**	**34 457,97€**	**34 757,11€**	**41 792,60€**	**11 001,95€**

Appendix 67: Break-Even and Margin of Safety Analysis

	2025	2026	2027	2028	2029	2030
Revenues	387 810€	575 460€	700 560€	825 660€	975 780€	1 013 310€
Fixed Costs	268 995€	366 141€	425 985€	499 444€	530 232€	564 200€
Variable Costs	133 554€	185 358€	215 304€	241 206€	271 152€	271 152€
Total Costs	402 549€	551 499€	641 289€	740 650€	801 384€	835 352€
Revenue Growth Rate	-	*+48%*	*+22%*	*+18%*	*+18%*	*+4%*
Costs Growth Rate	-	*+37%*	*+16%*	*+15%*	*+8%*	*+4%*
Break Even Point	**410 291 €**	**540 113 €**	**614 991 €**	**705 566 €**	**734 274 €**	**770 334 €**
Margin of Safety	*-6%*	*+6%*	*+12%*	*+15%*	*+25%*	*+24%*



Appendix 68: Cash-Flows

	2024	2025	2026	2027	2028	2029	2030
Revenues		387 810€	575 460€	700 560€	825 660€	975 780€	1 013 310€
COGS		133 554€	185 358€	215 304€	241 206€	271 152€	271 152€
Gross Profit		**254 256,00€**	**390 102,00€**	**485 256,00€**	**584 454,00€**	**704 628,00€**	**742 158,00€**
Operating Cost		217 803€	296 624€	344 251€	405 493€	421 621€	451 924€
Marketing Costs		51 192€	69 517€	81 734€	93 951€	108 611€	112 276€
EBITDA		**- 14 739,10€**	**23 961,30€**	**59 271,30€**	**85 010,31€**	**174 396,07€**	**177 957,93€**
Depreciations and Amortizations		7 120€	8 400€	9 680€	10 960€	12 240€	20 000€
EBT		**- 21 859,10€**	**15 561,30€**	**49 591,30€**	**74 050,31€**	**162 156,07€**	**157 957,93€**
Taxes		0€	2 268€	9 414€	14 551€	33 053€	32 171€
NOPLAT ("Net Income")		**- 21 859,10€**	**13 293,43€**	**40 177,13€**	**59 499,75€**	**129 103,30€**	**125 786,76€**
Operational Cash Flow	**- €**	**- 14 739,10€**	**21 693,43€**	**49 857,13€**	**70 459,75€**	**141 343,30€**	**145 786,76€**
CAPEX	35 600€	6 400€	6 400€	6 400€	6 400€	38 800€	0€
(Δ) NWC	0€	103 807€	51 178€	34 458€	34 757€	41 793€	11 002€
Salvage Value	0€	0€	0€	0€	0€	0€	31 600€
Investment Cash Flow	**- 35 600,00€**	**- 110 207,43€**	**- 57 577,65€**	**- 40 857,97€**	**- 41 157,11€**	**- 80 592,60€**	**20 598,05€**
FREE CASH FLOW	**-35 600 €**	**-124 947 €**	**-35 884 €**	**8 999 €**	**29 303 €**	**60 751 €**	**166 385 €**

Appendix 69: Profitability Ratios

Cost of Capital	5,05%
NPV	**16 058 €**
IRR	**7,02%**
Payback Period	**6**
Profitability Index	**1,45**

	2025	2026	2027	2028	2029	2030
Gross Margin	66%	68%	69%	71%	72%	73%
EBITDA Margin	-4%	4%	8%	10%	18%	18%
EBIT Margin	-6%	3%	7%	9%	17%	16%
Net Margin	-6%	2%	6%	7%	13%	12%

Appendix 70: Sensitivity Analysis of Revenues for 2025

Sensitivity Revenues 2025

		Price				
	387 810,00€	80	85	90	95	100
Nº of Projects	27	300 240,00€	319 005,00€	337 770,00€	356 535,00€	375 300,00€
	29	322 480,00€	342 635,00€	362 790,00€	382 945,00€	403 100,00€
	31	344 720,00€	366 265,00€	387 810,00€	409 355,00€	430 900,00€
	33	366 960,00€	389 895,00€	412 830,00€	435 765,00€	458 700,00€
	35	389 200,00€	413 525,00€	437 850,00€	462 175,00€	486 500,00€

Appendix 71: Sensitivity Analysis of Net Income for 2025

Sensitivity Net Income 2025

		Revenues				
	- 21 859,10€	310 248,00€	349 029,00€	387 810,00€	426 591,00€	465 372,00€
COGS	106 843,20€	- 72 710,30€	- 33 929,30€	4 832,84€	35 469,83€	66 106,82€
	120 198,60€	- 86 065,70€	- 47 284,70€	- 8 503,70€	24 919,07€	55 556,06€
	133 554,00€	- 99 421,10€	- 60 640,10€	- 21 859,10€	14 368,30€	45 005,29€
	146 909,40€	- 112 776,50€	- 73 995,50€	- 35 214,50€	3 817,54€	34 454,53€
	160 264,80€	- 126 131,90€	- 87 350,90€	- 48 569,90€	- 9 788,90€	23 903,76€

Appendix 72: Sensitivity Analysis of NPV for 2025

Interest rate	NPV	% Change
3,05%	34 785 €	117%
4,05%	25 091 €	56%
5,05%	**16 058 €**	0%
6,05%	7 639 €	-52%
7,05%	- 210 €	-101%

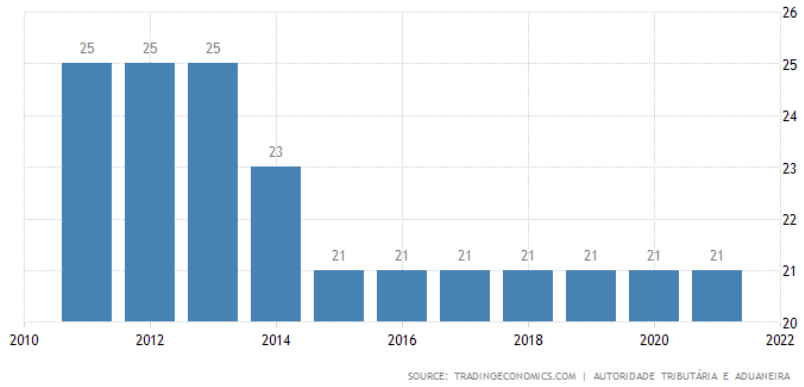
Appendix 73: Scenario Analysis – Normal

Normal Scenario	2025	2026	2027	2028	2029	2030
Price	90€	90€	90€	90€	90€	90€
Number of Projects	31	46	56	66	78	81
Number of Hours per project	139	139	139	139	139	139
COGS	133 554€	185 358€	215 304€	241 206€	271 152€	271 152€
Gross Profit	**254 256,00€**	**390 102,00€**	**485 256,00€**	**584 454,00€**	**704 628,00€**	**742 158,00€**
Personnel Costs	167 861€	223 452€	256 337€	302 837€	302 837€	328 271€
Marketing Costs	51 192€	69 517€	81 734€	93 951€	108 611€	112 276€
R&D	38 781€	57 546€	70 056€	82 566€	97 578€	101 331€
SG&A	11 161€	15 626€	17 858€	20 090€	21 206€	22 322€
EBITDA	**- 14 739,10€**	**23 961,30€**	**59 271,30€**	**85 010,31€**	**174 396,07€**	**177 957,93€**
Depreciations and Amortizations	7 120€	8 400€	9 680€	10 960€	12 240€	20 000€
EBT	**- 21 859,10€**	**15 561,30€**	**49 591,30€**	**74 050,31€**	**162 156,07€**	**157 957,93€**
Taxes	0€	2 268€	9 414€	14 551€	33 053€	32 171€
Net Income	**- 21 859,10€**	**13 293,43€**	**40 177,13€**	**59 499,75€**	**129 103,30€**	**125 786,76€**

Appendix 74: Scenario Analysis – Pessimistic

Pessimistic Scenario	2025	2026	2027	2028	2029	2030
Price	75€	75€	75€	80€	80€	80€
Number of Projects	31	44	50	56	62	62
Number of Hours per project	139	139	139	139	139	139
COGS	148 492€	206 016€	239 460€	268 222€	301 666€	301 666€
Gross Profit	**174 683,00€**	**252 684,00€**	**281 790,00€**	**354 498,00€**	**387 774,00€**	**387 774,00€**
Personnel Costs	167 861€	223 452€	256 337€	302 837€	302 837€	328 271€
Marketing Costs	51 192€	69 517€	81 734€	93 951€	108 611€	112 276€
R&D	38 781€	57 546€	70 056€	82 566€	97 578€	101 331€
SG&A	11 161€	15 626€	17 858€	20 090€	21 206€	22 322€
EBITDA	**- 94 312,10€**	**- 113 456,70€**	**- 144 194,70€**	**- 144 945,69€**	**- 142 457,93€**	**- 176 426,07€**
Depreciations and Amortizations	7 120€	8 400€	9 680€	10 960€	12 240€	20 000€
EBT	**- 101 432,10€**	**- 121 856,70€**	**- 153 874,70€**	**- 155 905,69€**	**- 154 697,93€**	**- 196 426,07€**
Taxes	0€	0€	0€	0€	0€	0€
Net Income	**- 101 432,10€**	**- 121 856,70€**	**- 153 874,70€**	**- 155 905,69€**	**- 154 697,93€**	**- 196 426,07€**

Appendix 75: Corporate Tax Rate in Portugal



Appendix 76: Scenario Analysis – Optimistic

	Optimistic Scenario					
	2025	2026	2027	2028	2029	2030
Price	95€	95€	95€	100€	100€	100€
Number of Projects	40	57	65	73	81	81
Number of Hours per project	139	139	139	139	139	139
COGS	121 121€	168 263€	201 317€	228 802€	263 088€	268 338€
Gross Profit	**407 078,96€**	**584 422,32€**	**657 008,08€**	**785 898,00€**	**862 812,00€**	**857 562,00€**
Personnel Costs	167 861€	223 452€	256 337€	302 837€	302 837€	328 271€
Marketing Costs	51 192€	69 517€	81 734€	93 951€	108 611€	112 276€
R&D	38 781€	57 546€	70 056€	82 566€	97 578€	101 331€
SG&A	11 161€	15 626€	17 858€	20 090€	21 206€	22 322€
EBITDA	**138 083,86€**	**218 281,62€**	**231 023,38€**	**286 454,31€**	**332 580,07€**	**293 361,93€**
Depreciations and Amortizations	7 120€	8 400€	9 680€	10 960€	12 240€	20 000€
EBT	**130 963,86€**	**209 881,62€**	**221 343,38€**	**275 494,31€**	**320 340,07€**	**273 361,93€**
Taxes	24 383€	39 378€	41 555€	51 844€	60 365€	51 439€
Net Income	**106 580,73€**	**170 504,11€**	**179 788,14€**	**223 650,39€**	**259 975,46€**	**221 923,16€**

Appendix 77: Layout of software developers at Pontual for the whole period

2025	• 2 entry level • 2 mid-career
2026	• 2 entry level • 2 early-career • 2 mid-career
2027	• 4 early-career • 2 mid-career
2028	• 1 entry level • 4 early-career • 2 mid-career
2029	• 5 early-career • 2 mid-career
2030	• 3 early-career • 2 mid-career • 2 late-career