The competitiveness of Portugal: views from the market

Abstract

The recent pandemic crisis deteriorated the position of the Portuguese economy, which was already far behind European standards since it was highly dependent of the most affected pandemic sectors. The present study aims to conduct a pertinent assessment of the concept of Business Competitiveness and how Portugal can progress in that field, for the sake of becoming a more sustainable and wealth-creator economy. The research was elaborated with sixty-five in-depth interviews with expert persons from the Portuguese business ecosystem, who were asked to reflect on the state of the economy and competitiveness of the country. The outputs of those interviews were then interpreted with the help of Qualitative Data Statistical Analysis software, concluding that there is much room for improvement in almost all areas of activity, in particular by promoting an innovative, value-adding and exporting private sector and a lighter and more efficient public sector. The conclusions point to modernisation of the Portuguese economy as a way of making it more competitive in a highly competitive and demanding global scenario.

Keywords: Competitiveness, Portuguese Economy, Private Sector, Public Sector

JEL Classification: F21, F23

1. Introduction

In the aftermath of the big pandemic crisis, it becomes even more interesting to evaluate the Portuguese economy and how it dealt with such unexpected restrictions. The subject of business competitiveness already has some literature under its name, which gives sustainability to a more detailed analysis of the Portuguese scenario, either from a company perspective or from a country-wide perspective. Vinhas da Silva (2018) identifies the gap between external factors and domestic factors as the constraint of a more competitive, value creator, and attractive Foreign Direct Investment (FDI) economy. That gap can be improved through effective economic policies, meaning that the research problem is how to achieve that effectiveness given Portugal's intrinsic characteristics. It is relevant to understand how companies are performing and what may limit their growth, as their individual competitiveness contributes to the aggregated competitiveness of the country, which is a determinant for achieving stable economic growth.

Portugal's business and economic competitiveness can be attributed to several factors. Firstly, the country's tourism industry has been a significant contributor to its economy and competitiveness (Figueira et al., 2021). Portugal has exceptional tourism resources and potential, making it an attractive destination (Loureiro, 2014). Secondly, Portugal has high business entry rates compared to other countries, indicating a favorable environment for business creation (Sarmento & Nunes, 2014). However, there are challenges faced by SMEs in Portugal due to globalization and increased competition (Cardoso & Pereira, 2022). Additionally, Portugal's economic performance has not met expectations since joining the Eurozone, primarily due to the overvaluation of the domestic currency (Soukiazis et al., 2013; Soukiazis et al., 2012; Duarte, 2022). Lastly, Portugal's move towards a competitive electricity market aims to improve efficiency, reliability, and cost-effectiveness in delivering electricity to customers (Mariano et al., 2010).

Comparing the competitiveness of business in Portugal with the rest of Europe involves analyzing various factors. Studies have examined both direct and indirect competition in the Portuguese market and its largest export markets in Western Europe (Branstetter et al., 2019). Comparative analyses have been conducted between Portugal and Spain, including in sectors such as processed tomatoes (Oliveira et al., 2019). Additionally, studies have explored the resilience and international competitiveness of specific micro-regions in Portugal, considering factors at the firm, industrial structure, and regional levels (Varum et al., 2020). It is important to note the distinct urban restructuring and governance modes in southern European countries like Portugal, which have been identified as factors affecting competitiveness (Chorianopoulos, 2002). Comparative destination analyses have also assessed the competitiveness of Portugal and other Southern European countries as tourist destinations (Águas et al., 2010). Moreover, the challenges faced by SMEs in Portugal due to globalization and intensified competition have been highlighted (Cardoso & Pereira, 2022). Overall, these studies provide insights into the competitiveness of business in Portugal in relation to the rest of Europe.

The main factors that drive the Portuguese economy can be attributed to a combination of variables. Firstly, financial asset prices and housing price fluctuations have significantly

influenced Portuguese households' indebtedness over the past few decades Romão & Barradas (2020). Additionally, the poor dynamism of the Portuguese economy and low demand from alternate markets have been identified as critical variables affecting the country's weak competitiveness (Costa et al., 2017). The Portuguese State's ownership of public companies has also played a substantial role in supporting the Portuguese economy (Ciascai & Defalvard, 2022). Furthermore, output stagnation, high levels of indebtedness, low levels of saving, and reduced competitiveness have been recognized as challenges faced by the economy (Andrade & Duarte, 2011). The expansion of the services sector, human capital, and sectoral productivity have also contributed to the overall growth of the Portuguese economy (Duarte & Simões, 2014). Additionally, the financialization of the economy, both domestically and externally, has been a prominent feature in Portugal's economic landscape (Rodrigues et al., 2016; Barradas et al., 2018). Finally, the Portuguese economy's performance is impacted by the limited export markets it is reliant upon (Reis, 2010).

The tourism sector is one of the most representative industries in Portugal regarding GDP (Maia & Paralta, 2021)Neves et al., 2015; Ivanova & Nikolskaya, 2022). It contributes more than 10% of Portugal's GDP and plays a crucial role in regional development and employment (Maia & Paralta, 2021). The tourism sector's direct contribution to Portuguese GDP has been increasing over the years (Neves et al., 2015). Additionally, the energy sector is significant, although it reportedly exhibits inefficiency in terms of energy intensity of the economy (Raimundo & Domingues, 2021). The automobile manufacturing industry also holds importance, although there may not be a strong correlation between differences in endowments and value-added in this sector (Faustino & Leitão, 2011). Moreover, the hospitality and hotel industry in Portugal has been adopting sustainable practices, which can lead to the development of more sustainable and competitive industries (Fernandes et al., 2022). Overall, these industries play a vital role in driving Portugal's economy and contributing to its GDP.

The general objective of this study is to assess Business and Economy Competitiveness in Portugal and identify strategies for improving the country's economic sustainability and wealth. Based on this we arise the following research questions for the study:

- What are the most relevant factors that affect the competitiveness of the business and economy in Portugal?
- Who are the top performing nations in Competitiveness and which factors make them thrive in this matter?
- Can Portugal increase its Competitiveness levels to converge with the top performers?
- How can we assess the Portuguese economy in particular during the Covid-19 period?

The study uses a set of 65 in depth-interviews invited in a convenience approach of stakeholders known as experts that comes from industry, academia and government in Portugal. To analyse the content, it was applied the KH Coder tool to support text mining and quantitative analysis of textual data.

The paper follows a structured approach with different chapters serving specific objectives. The Introduction chapter provides an overview and context of the research, stating the research objective and questions and giving as overview about the problematic. The Literature Review chapter establish the theoretical framework to permit to have a state of the art about the research. The Methodology chapter details the research design and methods used. Then, follows the Data Analysis chapter that presents and analyses the collected data from the interviews. The Discussion chapter interprets the findings, relates them to the research objectives and existing literature. Finally, the Conclusion chapter summarizes the key findings, their implications, and suggests avenues for further research, providing a concise wrap-up of the entire paper.

2. Literature Review

2.1. Defining Business Competitiveness

Even though Business Competitiveness is a subjective concept, Mester and Bugnar (2014) try to define it as a function of factors such as efficiency, productivity, success, adaptability, product quality, and optimum costs. Generically, competitiveness can be seen as a dependent variable of those factors for a specific business or a national economy and translate into how that company/country can deal with current or potential competition (Dzwigol et al., 2020); (Distanont & Khongmalai, 2020); (Hagiu & Wright, 2020); (Na et al., 2019)]. Looking at it from a business perspective, to reach that supremacy over competitors Porter (1987) believed that cost reduction (cost leadership) or product differentiation were the two sources of competitive advantage. The theory from David Ricardo (1817) says that countries must privilege economic activities where they have the best comparative advantages in production.

For a more macroeconomic level analysis, factors such as production costs, availability of labour force, quality of education, infrastructures, or political stability are examples of some indicators that the World Economic Forum (WEF) includes in its worldwide comparison published under its *Global Competitiveness Report*. The productivity of a country's economy can be seen, simplistically, by its outputs/inputs ratio. Countries that lead the WEF ranking (Switzerland, for example) are known for paying comparatively high wages, which increases the denominator of the equation, meaning that they must be more productive to generate more outputs.

Some authors also tried to quantify competitiveness. Foltýn (2000) used three indicators to numerical evaluate businesses' competitiveness and categorize them into four groups: 1) profitable and solvent, 2) not profitable as they could but still adequately solvent, 3) limited profitability but with adequate solvency, 4) no prospect at all of profitability or solvency. His methodology was based on the three essential indicators: 1) Fast Solvency (= Current Capital

/ Short-Term Liabilities); 2) Ratio of Sales by Costs; 3) Ratio of Gross Income by Short-Term Liabilities (Foltýn, 2000). Stewart (1991) did a similar intent and developed his EVA method, a financial performance metric which is most directly linked to the creation of shareholder value, over time[1].

Horvathova & Mokrisova (2020) conclude that both Foltýn and Stewart methodologies are appropriate evaluations of competitiveness and that businesses that want to improve their market position should assess its current situation in terms of its financial health and performance and focus on developing internal processes and increasing of business potential, efficiency and performance.

Another relevant concept that can be brought to the discussion is Globalization. Our economy has become completely global, in the sense that trade barriers have fallen, and countries are closer together due to the development of transport. This has obvious consequences for competitiveness. Foreign companies can now compete in domestic markets, widening the number of competitors and forcing domestic firms to lower their production costs or increase their value production. In these circumstances, Badrinath (2004) defends that it is only possible for smaller companies to compete in a global market if they're properly supported by the government. He also suggests that a 'close and active partnership' between companies within the same business sector can be highly beneficial.

But there are also not-so-obvious consequences of globalization. For developing economies, it meant that their growth prospects are bigger than ever, due to an increased access to new technologies, skills, markets, and financial sources (Badrinath, 2004). For the world, it brought new environmental challenges, because nowadays economic growth highly contributes to environmental degradation. It is particularly important that business competitiveness practices take sustainability into account. Spreckley (1981) and Elkington (1998) famously developed that balance between competitiveness and sustainability through the concepts of 'triple bottom line' and 'three P's', respectively. The first included social, economic, and environmental factors whilst the second was a more simplistic version of it, with the three P's standing for people, profit and planet. Fahmi (2012) adds some examples to the argument, with the Enron and Lehman Brothers scandals representing situations where the strategy was uniquely profit-driven and factors related to People (poverty, poor labour conditions, low productivity) and Planet (pollution, loss of biodiversity, climate change) were ignored.

2.2. How a company competitiveness relates to other business indicators

The well-known Resource Based View (RBV) Framework (Barney, 1996) is a good starting point on how to achieve a sustained competitive advantage from a company perspective. For the author, resources are all factors such as assets, capabilities, organizational processes, firm

[1] EVA = NOPAT – WACC * IC, with NOPAT, WACC and IC standing for net operating profit after taxes, the weighted average cost of capital, and invested capital, respectively.

attributes, information or knowledge that can be inductors of a sustained edge over competitors, which they are especially when they are Valuable, Rare, Inimitable, and exploited by the Organization (VRIO framework). This is especially relevant if we want to dive into the Portuguese reality, where most of the companies are Small and Medium Enterprises (SMEs).

The size of the company has been proven to moderate the relationship between its competitive pillars (strengths and weaknesses) and its efficiency (Lafuente et al., 2020). The fact that a smaller-sized company has less resources enhances the relevance of internal analysis for strategy makers, who should be perfectly aware of their business characteristics to conduct effective strategic changes to its competitiveness level. However, SMEs can and must be competitive in increasingly competitive and global markets [(Parast & Safari, 2022); (Fatonah & Haryanto, 2022); (Prasanna et al., 2019); (Singh et al., 2010); (Di Gregorio et al, 2009); (Singh et al., 2008)]. Not only is size relevant, but cultural and regional aspects are also relevant in the analysis of SMEs' competitiveness [(Casimiro & Chambel, 2014); (Ribeiro & Santos, 2008); Silva et al., 2000)].

But not only size determines the competitiveness of a company. Other attributes such as quality of strategic management, education or networking can shift a smaller company to a higher-level playing field. Regarding strategic management, Herciu (2015) defends that companies nowadays have a new model of organization that requires a perfect balance between stability and change, revolutionary and evolutionary change, adaptability and alignment, exploratory and exploitative innovation to achieve competitiveness. Education is an important matter in all areas of science, and in management and entrepreneurship it should be no different. Frolova et al. (2021) argues that there is a lack of research on how important it is for managers that they studied thoroughly creativity in entrepreneurial and business-related disciplines through knowledge management tools and practices and tried to fill that gap. He concluded that the future of entrepreneurship lays around managers who studied with motivation, through practical lessons and business cases, and that benefited from knowledge management instruments to solve real business problems (Frolova et al., 2021). As for networking, there's a significant number of empirical research that backup its beneficial effects on performance and competitiveness, as they can help reduce transactional uncertainty and diminish the risk of opportunistic behaviour by networking partners (Uzzi, 1996). Arsezen and Babacan (2016) went further and attempted to validate the empirical research that says that strategic governance connects international competitiveness and networking, through a quantitative analysis.

Another key skill that managers should have is the ability to predict and forecast economic variables of their businesses, so they can mitigate risks, reduce uncertainty and be more competitive in the long run. Kolkova (2020) developed statistical models (exponential smoothing, ARIMA, BATS and artificial neural network) to measure how relevant sales forecasts could be to increase competitiveness. Results showed that only 2 sectors out of 32 (food and beverage service activities and real estate activities) had ambiguous revenue forecasts, due to their current 'state of stagnating demand'. For these two stagnated sectors there is an opportunity to revive the market with a new service offered, or a new addition to an existing service that could lead to a competitive advantage.

Similarly, to the Global Competitiveness Index (GCI), Voulgaris and Lemonakis (2014) sampletried to replicate that attempt to company level. Through econometric modelling, the researchers constructed a composite index that reflects firm level competitiveness that allowed an effective comparison and identification of the critical factors that determine that competitiveness. The index was made of a sample of 980 Greek firms (which have similarities to Portuguese ones) and four financial variables: market share, market share growth, gross profit margin and gross profit margin growth. Results showed that the Greek reality includes almost 80% of the firms within the medium and low competitiveness classifications and that factors such as efficient use of resources, effective control of labour and production costs, management of inventories, adequate liquidity, application of new technologies, innovation through R&D, debt financing, and exports (Voulgaris & Lemonakis, 2014) are the biggest determinants of competitiveness, whilst the economic crisis negatively impacted firms generally.

2.3. How a country competitiveness relates to other business indicators

The most common resource for business competitiveness analysis at the country level is the WEF and its GCI. To compute this index, the following factors are considered: institutions, infrastructure, macroeconomic environment, primary education and health, higher education and training, goods market efficiency, labour market efficiency, financial market development, technology readiness, market size, business complexity, and innovation. Rostami et al. (2019) examined the relevance of these factors by analysing how much they correlate to the three types of economies: factor-driven, efficiency-driven, and innovation-driven. The analysis is done through in assessing the type of correlation between the factors indicating competitiveness and the types of economies, distinguishing correlation from significant correlation, emphasizing these factors on the competitiveness of the economy. The results are synthetised in the Table 1:

Table 1: Correlation of Competitiveness Factors and Types of Economies

Factors	**Types of Economies**		
	Factor-driven	**Efficiency-driven**	**Innovation-driven**
Institutions	+	++	++
Infrastructure	++	++	++
Macroeconomic environment	++	++	
Primary education and health	++		
Higher education and training		+	+
Goods market efficiency			++
Labour market efficiency		++	++
Financial market development	+		++
Technology readiness	++	++	
Market size	+	++	
Business complexity	+		++
Innovation	++	++	++

Note: (+) Positive Correlation and (++) Positive and Significant Correlation
Source: (Rostami et al., 2019)

With Portugal being an innovation-driven country, we can assume that the factors that would have a bigger impact on the country's competitiveness are the ones that turned out to have a strong and positive correlation (++), especially since the author believes that his findings are consistent with received economic theory on how national context affects entrepreneurial activity (Rostami et al, 2019). Additionally, Vinhas da Silva (2018) claimed that there is a relationship between a country's competitiveness, its exports, its FDI, and its domestic market competitiveness intensity, since competitive economies export more (in quantity but mostly in value) and attract more FDI (mostly in capital-intensive projects, that are innovative and driven by technology, knowledge and creativity).

Zagorseková et al. (2018) measured the correlation between economic growth and competitiveness for countries in the European Union. The correlation did not turn out to be significant, possibly because of the faster growth of less developed economies within the EU, which are still in the process of redeploying more developed economies, but still do not achieve their competitiveness. Besides that, they reached other interesting conclusions: most of the time the competitiveness of the economy is defined by the environment created by the state for businesses; the weakest topic for the EU competitiveness is still innovation; the EU is still lagging the US and Japan in terms of competitiveness; there are still significant differences within the EU, mainly between the founder countries and the 2004 onwards new joiners.

Another way to compute a numerical assessment of a firm's competitiveness is through the 'benefit-of-the-doubt' (BOD) method, which was designed for determining strategic priorities among a set of units of analysis (Cherchye et al., 2007). This process generates, for each business, the weight of its competitive pillars that maximize its Competitiveness Index. Lafuente used this model to evaluate distinct business ecosystems (France, Spain, Costa Rica, Hungary) using the pillars of human capital, markets, innovation, and strategy. Results showed that the quality of the ecosystem is related to business competitiveness because businesses operating in more consolidated ecosystems are better able to fully realize the positive effects of strategic choices that seek to prioritize and exploit key resources and capabilities (Lafuente et al., 2021).

2.4. Overview of the Portuguese reality

As stated in literature already mentioned, Portugal fits in the group of countries for which innovation is one of the most, or even the most, important competitive pillar in terms of its weight in promoting business competitiveness and developing of different economic setors [(Nunes & Serrasqueiro, 2015); (Lopes et al., 2014); (Pereira & Correia, 2012); (Marques et al., 2011);); (Morais, et al., 2010); (Cabrita & Bontis, 2008)] (Ribeiro & Santos, 2008)]. Rolling back the years to the peak of Portugal's economic recession, Gibson & Naquin (2011) questioned whether investing in, innovation, technology transfer knowledge and know-how was a worthwhile investment at the time, especially for a country that was struggling financially. Even though it was a period of huge economic uncertainty, the authors were already optimistic regarding the impact of innovation. In accordance with that expectation, more recent research dived into Portugal´s current entrepreneurship, innovation, and competitiveness levels. Veiga et al. (2020) measured the quality of Portugal's public institutions, both economic

and political, trough components such as Property Rights (PR), Government Integrity (GI), Tax Burden (TB), Business Freedom (BF), Investment Freedom (IF), Trade Freedom (TF), Electoral Process (EP), Political Pluralism and Participation (PPP), Functioning of Government (FG), Freedom of Expression and Belief (FEB), Associational and Organizational Rights (AOR), Rule of Law (RL) and Personal Autonomy and Individual Rights (PA), respectively. All three hypothesis were proven right: the quality of public institutions holds a positive influence on entrepreneurship, innovation, and competitiveness, which highlights the importance of the quality of public institutions and their contributions towards economic development and the need towards public institutions rethinking their management models and fully grasping the extent to which quality in the provision of public services may contribute towards the improvement of the societies (Veiga et al., 2020). These results are coherent with Alves et al. (2019) perspective on Portuguese economic policy, which recognizes that a small open economy is bound to struggle in terms of competitiveness in a globalized world. Due to these limitations, the author suggests policies that would encourage human capital to reduce income inequality and poverty and simultaneously increase the FDI, because these factors are proven to be negatively correlated.

The fact that the Portuguese business structure is predominantly of micro companies with low productivity affects the country's aggregated productivity and consequently lowers its status in the European context of competitiveness (Silva et al., 2021); (Corbo et al., 2018). Rocha (2018) claims that the Portuguese economy affects too many resources to small-sized companies and that factors like size-dependent regulations and policies, poor efficiency of the judicial system, and low levels of managerial human capital disincentivise firm growth. For some companies, it might be preferable not to grow as it would represent a loss of subsidies and tax benefits and more interaction with the legal system and its inherent costs.

An inevitable analysis at this time concerns the consequences of the COVID-19 pandemic on Portugal's economy, specifically in its companies' competitiveness. Tomé et al. (2020) evaluated the current macroeconomic state of the country and went in-depth into the sectors of tourism, education, public and industrial. The consequences were significant and unprecedented in all four sectors, but the author believes that the crisis might have been an inductor for future and structural changes for the country's economy, as it was put to the test like never before. Firfiray and Gomez-Mejia (2021) had a different approach to the issue, by dissecting the effects of the pandemic on family businesses. There isn't an accurate percentage of Portuguese firms that are family-owned, but empirical estimations tend to believe that they represent a significant share. The uniqueness of family firms is often attributed to socioemotional wealth (SEW) which refers to the non-economic and affect-laden value that a family derives from a firm (Berrone et al., 2012). The pandemic created new challenges for all firms, but for family ones, it also tested its most distinctive factor, the SEW. Finally, the health sector is an interesting point of discussion in current times, and studies from Player (2021) regarding the UK NHS might be useful to evaluate and translate to the Portuguese reality, to support the private versus public health system debate.

Looking forward, Vinhas da Silva et al. (2018) pointed out that factors such as the decrease in the WEF competitiveness ranking, the worsening of the public debt / GDP ratio, the excessive private debt, the lack of resources for productive investment, and the historical lack of strategic sense are hostile to the to the future of the Portuguese economy. It is key that families and the government can spend within their economic constraints. His Model of National Competitiveness states the key domestic factors that should be improved to converge with foreign competitors, so that FDI is attracted and value aggregation to exports is increased.

Vinhas da Silva et al. (2018) also mention that the Portuguese economy is too inward looking, and that most of its bilateral relations with relevant market players are not established. In general, the local economy, particularly in tourism, lives on attracting clients, due to the important endogenous factors it has at its disposal, disregarding the importance of bilateral relations and boosting its business through credit.

3. Methodology

The previous table integrates the main issues from the literature review with the research context that would be included in the methodology. Having in mind all the information gathered in the Literature Review, the research objectives defined are:

- Objective 1: Correlate the empirical evidence obtained with the beliefs of the 50+ respected names in the Portuguese business mediatic scene that were interviewed.
- Objective 2: Describe the world's top performers in terms of economic growth, especially by considering factors such as innovation, entrepreneurship, and competitiveness.
- Objective 3: Analyse the gap between Portugal and the top performers mentioned in the previous objective and evaluate the potential convergence of Portugal by discussing the factors that would contribute to that gap reduction.
- Objective 4: Synthetise the state of the Portuguese economy, by reflecting on the impacts of the pandemic

The data was collected during 2021 and the personalities were identified from the main relevant sectors in Portugal, in particular tourism, technology, construction, agriculture, food and naval industry. The research technique chosen was In-Depth Interviews. The aim was to collect information through the opinions of 50+ Portuguese personalities that represented different areas such as business, politics, and arts, to obtain multidisciplinary perspectives on the country's competitiveness scenario. The sample characterization is presented below in Table 2:

Table 2: Sample Characterization

	#	Gender			Age			Company Size			
Private	*51*	Male	Female	Other	21 to 30	30 to 50	> 50	<10	10 to 49	50 to 249	> 249
Tourism	11	5	6	0	2	5	4	2	3	6	0
Technology	9	7	2	0	2	4	3	1	2	4	2
Construction	8	8	0	0	1	5	2	0	0	2	6
Agriculture	6	4	2	0	1	3	2	0	1	5	0

Food	5	2	3	0	1	3	1	0	1	3	1
Naval	4	3	1	0	0	3	1	0	0	1	3
Bank	2	1	1	0	0	2	0	0	0	0	2
Insurance	2	1	1	0	1	1	0	0	0	0	2
Retail	1	0	1	0	0	1	0	0	0	1	
Telcos	1	0	1	0	0	1	0	0	0	0	1
Energy	1	1	0	0	0	0	1	0	0	0	1
Health and Pharma	1	0	1	0	0	0	1	0	0	1	0
Public / Non Profit	*14*										
Academia	4	3	1	0	1	1	2	0	0	0	4
Government	10	5	5	0	1	6	3	0	0	0	10

The research methodology applied to the information obtained in the interviews was a Text Mining and Content Analysis tools. It is expected that the opinions of the interviewees, after careful analysis, may contribute to answering the research questions, achieving the research objectives, and contributing to this subject by corroborating or contradicting the current literature.

KH Coder is text analysis software that can help to analyze and visualize textual data. The graphics output from KH Coder were used to support the findings and conclusions in different ways. KH Coder generated word frequency charts that visually represent the most frequently used words in the interviews. We also use those graphics to identify key themes and topics that come from the experts interviewed. The frequency words of texts helped to identify patterns or trends in the data. The software also generates network graphs that display the relationships between different words or concepts from our interviews. These graphs helped us to understand the connections and associations between different elements of business and competitiveness in Portugal.

4. Data Analysis

Text mining has been increasingly used as a way to systematise the process of extracting information and relevant knowledge from unstructured documents, as a way of enabling the efficient use of data [(Hickman et al., 2022); (Nassirtoussi et al., 2014); (Hotho et al., 2005)]. The text document that resulted from the in-depth interviews comprehends 65 interviews, 1939 paragraphs, and 4821 sentences. The qualitative analysis of this data will be described below, according to the types of analysis which were performed. The software used was KH Coder which is a software tool for content analysis and computational text analysis. It provides a number of features for analyzing and visualizing large amounts of text data, including Text categorization, text clustering, keyword extraction, frequency analysis, word cloud generation.

KH Coder is commonly used in fields such as digital humanities, social sciences, and linguistics for tasks such as sentiment analysis, topic modelling, and text classification.

4.1. Term Frequency

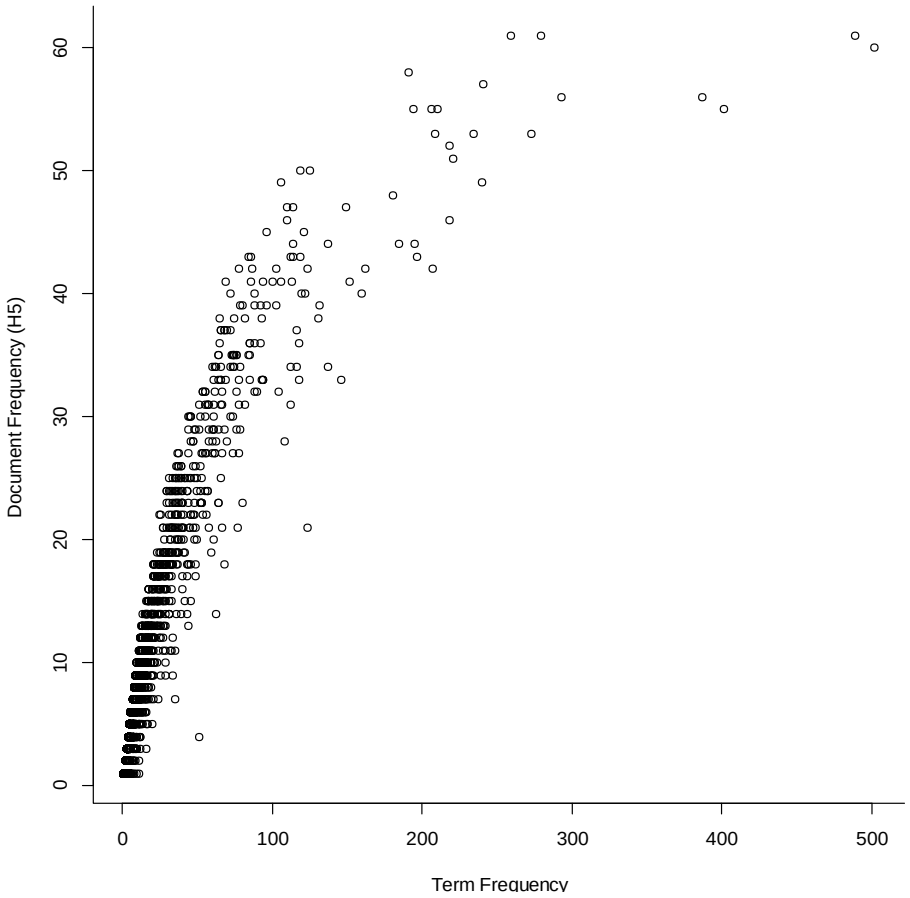
The first analysis was to identify the most relevant words across all interviews (table 3), to gather a general understanding of the subject and the most common thoughts mentioned by the interviewees.

Table 3: Term Frequency Analysis Output

Words	POS	Term Frequency	Words	POS	Interview Frequency
country	Noun	502	Portugal	ProperNoun	61
Portugal	Proper Noun	489	make	Verb	61
company	Noun	401	new	Adj	61
sector	Noun	387	country	Noun	60
economy	Noun	293	way	Noun	58
new	Adj	279	time	Noun	57
economic	Adj	273	economy	Noun	56
make	Verb	259	sector	Noun	56
time	Noun	241	company	Noun	55
crisis	Noun	240	need	Verb	55
create	Verb	234	pandemic	Noun	55
business	Noun	221	year	Noun	55
people	Noun	218	create	Verb	53
public	Adj	218	economic	Adj	53
pandemic	Noun	210	portuguese	Adj	53
portuguese	Adj	209	people	Noun	52
market	Noun	207	business	Noun	51
year	Noun	206	know	Verb	50
growth	Noun	197	necessary	Adj	50
investment	Noun	195	continue	Verb	49
need	Verb	194	crisis	Noun	49
way	Noun	191	world	Noun	48
social	Adj	185	allow	Verb	47
world	Noun	181	development	Noun	47
value	Noun	162	future	Noun	47
state	Noun	160	important	Adj	46
service	Noun	152	public	Adj	46
development	Noun	149	condition	Noun	45
innovation	Noun	146	term	Noun	45
process	Noun	137	investment	Noun	44

It is possible to evaluate the applicability of the selection of words to choose for further statistical analysis, either by Terms or Document frequency, by generating the relationship between them. The scatterplot association matrix below (Figure 1) proves the relationship, as it makes sense that a term that appears commonly across all interviews also appears in most of them.

Figure 1: Matrix by Terms or by Document Frequency Scatterplot Association



4.2. Key Words in Context Concordance and Word Association

This analysis allows the extraction of Key Words across the interviews. Searching Key Words returns the context (sentence, paragraph, interview) where that word was mentioned, which turns out to be useful when the intention is to obtain deeper research to that term.

For example, the results of Table 4 showed that the term ‘Crisis’ was used frequently, in 49 of the 65 interviews and 240 times across all interviews. The definition of ‘Crisis’ as a search key word, given its frequency and the research context of this study, returns all contexts where that word was mentioned. The context can be set as broader (full interview) or narrower (sentence or paragraph), depending on the depth of the analysis to perform.

Additionally, the introduction of Concordance requirements may enrich the analysis. For the same example, it may be interesting to investigate the context in which ‘Health’, another term with relevance to the study and that appeared frequently (112 times across 34 interviews), is mentioned close to our main key word ‘Crisis’. The results show the situations where ‘Health’ and ‘Crisis’ appeared close together and can be specified given the intentions of the analysis: either from contexts where these words were immediately next to each other (‘Health Crisis’) or where they were at most at five words ‘of distance’. The table below represents the output of this Example Analysis.

Table 4: KWIC Analysis Output

Interview Index	Left	Key Word	Right
9	…are facing a deep health	crisis	that is generating an unprecedented…
14	…a global health and economic	crisis	that puts all countries side…
16	…world is experiencing a health	crisis	that, little more than…
16	…we knew before the health	crisis	. How we respond to…
16	…sphere. Once the health	crisis	is over, it is…
27	…The consequences of this health	crisis	in human beings are yet…
30	… This global public health	crisis	has caused abrupt, violent…
30	…this economic and public health	crisis	and keeping pace with the…
34	…mentioned above, this health	crisis	should not turn into a…
42	…first impact of the health	crisis	, support for the economy…
42	…health, social and economic	crisis	. The global response to…
42	…first impact of the health	crisis	, support to the economy…
48	…is health. From every	crisis	there fatally emerges a universe…
48	…me that the present health	crisis	marks the end of an…
54	…other hand, the health	crisis	we experienced in the context…
65	…to cope with public health	crises	in any country in the…

To get another vision of which words may make sense to analyse in association with the Key Word ‘Crisis’, it is possible to obtain the Collocation Map of related words (see table 5). This assessment is useful to understand the main terms that relate to the Key Word, eventually to then analyse them in Concordance.

The results below show the words that appeared at a five-word distance to the key word ‘Crisis’, at least ten times. The previous analysis was corroborated, since ‘Health’ was the third word most commonly mentioned close to ‘Crisis’, but the other relevant words induct that a Concordance analysis to a pandemic/economic/current crisis may also make sense.

Table 5: Collocation Analysis

*Output*Word	Part of Speech	Total Matches	Left Matches	Right Matches
‘pandemic’	Noun	31	22	9
‘economic’	Adjective	18	15	3
‘health’	Noun	16	16	0
‘current’	Adjective	12	12	0

4.3. Hierarchical Cluster and Co-occurrence Network

This analysis segments top frequency words into clusters, which group them according to their similar appearance patterns. The resulting output is given under the form of a Dendrogram, with a vertical cut that represents the number of clusters, which are identified with distinct colours. The two graphs below show the Clusters for the 29 most frequent words across all interviews (Term Frequency) or for each individually (Document Frequency).

Figure 2: Term Frequency Words

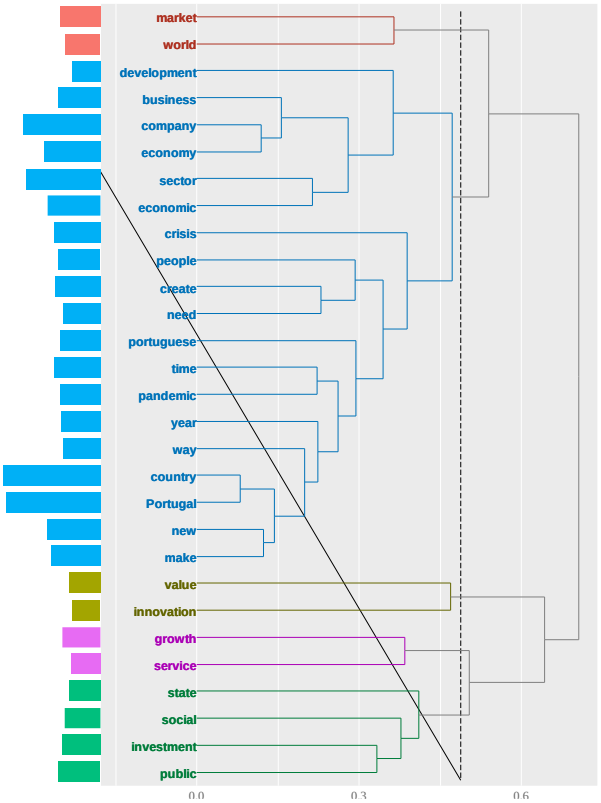
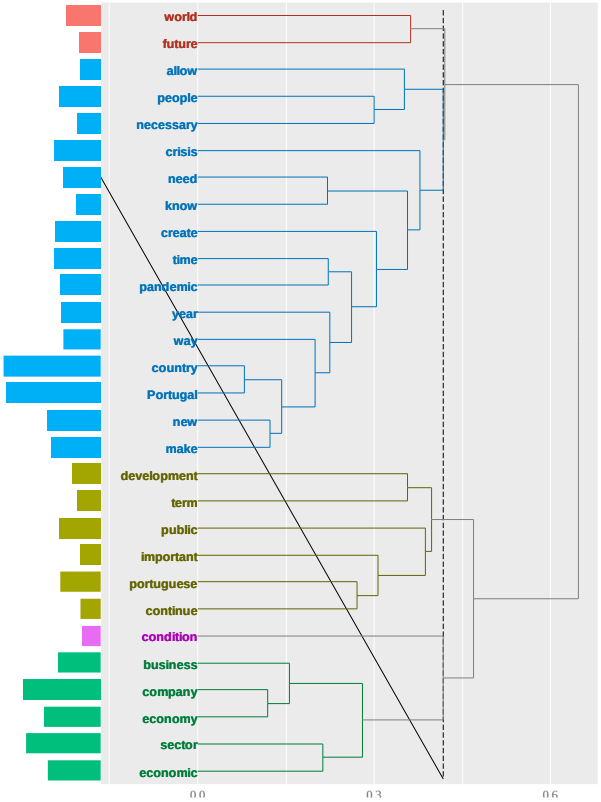


Figure 3: Document Frequency Words



This analysis shows the words with similar appearance patterns, by connecting them through lines in a Network Diagram, which allows the identification of words with high degrees of co-occurrence and is visually easier to observe.

Figure 4: Term Frequency Words by Interview

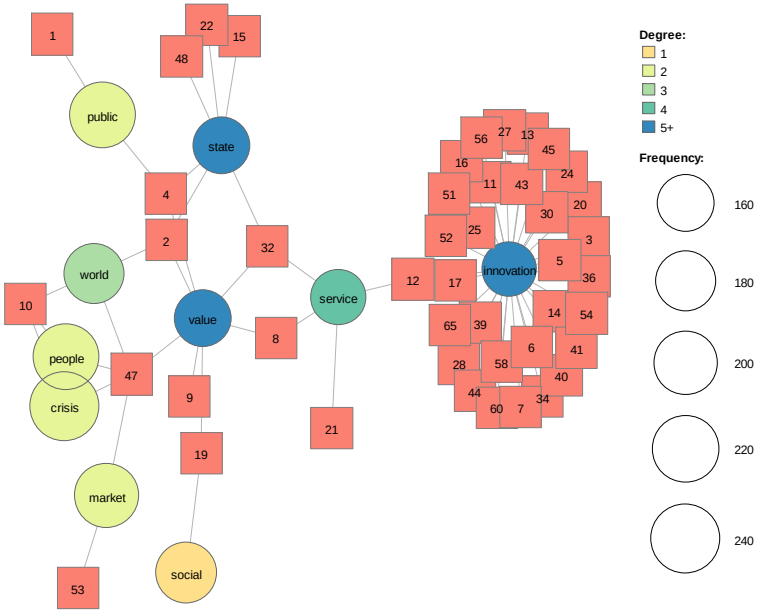
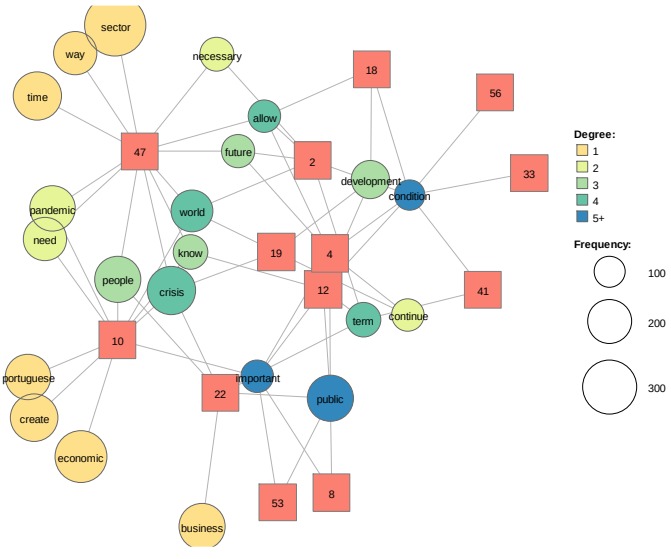


Figure 5: Document Frequency Words by Interview



According to Figure 2, we saw the frequency of occurrence of individual words within set of texts. It provides insights into the prominence and distribution of specific words in the content. The colours represent the main sets of texts associated with the words. We can compare it with

Figure 3, that calculates and displays the frequency of occurrence of words across the analysed interviews texts. It focuses on the presence or absence of words in each document rather than their individual frequency within a document.

Regarding to figure 4, it displays the frequency of occurrence of words within individual interviews. It focuses on the frequency of words within specific interviews transcripts, allowing to analyse the prominence and distribution of words on a per-interview basis. We can compare it with figure 5 that calculates and displays the presence or absence of words across individual interviews. It focuses on the occurrence of words within specific interviews rather than their frequency.

5. Discussion

The interviews were consistent with the existing literature on competitiveness. The GCI, produced by the World Economic Source, is a respected tool for measuring competitiveness and comparing nations worldwide. Among the factors that make up this index, innovation was agreed to be the most relevant to the Portuguese reality. According to Figure 4 (“Term Frequency Words by Interview”), the consensus from the interviews is that investing in innovation will contribute to transforming the economy into a more value-added provider of goods and services, reducing the current dependence on low-value tourism.

Another key factor for Portugal is the attraction of FDI, in particular to diversify the Portuguese economy, which is heavily concentrated in the tourism sector and, as shown in Table 4 ("KWIC Analysis Output"), COVID-19 provoked a deep economic crisis. The government has a responsibility in this matter, as it should promote competitive conditions and tax benefits for companies, as well as work on international trade agreements and incentive plans.

The comparison between Portugal and the world top performers in terms of competitiveness led to the following insights: i) having a high ratio of exports to GDP is key; ii) Portugal does not have global brands that contribute to those exports; iii) a lighter tax burden on companies would promote economy growth, wealth and job creation, and a sustained increase in wage levels; iv) benchmark countries compete on value and export value-added goods and services, whilst Portugal relies on a low value service-based economy. Thus, the role of the public sector is key, as we can see in Figure 3 ("Document Frequency Words") in the greenish yellow cluster, due to the fact that Portugal is a small country very fragmented in SMEs.

Famous economic theory from both Porter (1987) and David Ricardo (1817) can be used to explain the path to follow in becoming a more competitive country. As for Porter’s theory of sources of competitive advantage, Portugal is in an intermediate position between Cost Leadership, which historically has been the mentality of our economy, and Differentiation, which is the way to progress into a more sustained position (Porter, 1987). David Ricardo’s theory (1817) defends the investment in specific sectors in which there is the biggest compared competitive advantage. Tourism is undoubtedly one of them, due to the intrinsic natural conditions of the country, even though it should also become more value adding. Other sectors that produce tradable goods and services should also be invested on, to increase wealth creation by companies, that will progressively become sustainable and able to increase wage levels.

The intervention of the public sector and state is also key, not only in the application of the funds from the Recovery and Resilience Plan but also in the creation of strategies that promote competitiveness and economic growth. Most arguments include the reduction of the weight of the public sector, which should be smaller and more efficient, and a tax reform that benefits company creation and development as shown in Figure 5 ("Document Frequency Words by Interview").

The business structure of Portugal is constituted by SMEs. Given their representativity, the success of SMEs is important for the economy, so the government should support them. The support is not necessarily financial, because reducing bureaucracy, having competent and effective teams in public services, or reducing the tax burden for companies, would already contribute to a better business environment (Fig. 3 and Fig. 5). On the other hand, the government must also intervene in sectors where there are issues, such as real estate activities. Accommodation in the big cities, namely Lisboa and Porto, has become unsustainable for the common Portuguese citizen, which could be solved with measures that attracted big companies in this market and having transparent investment legislations.

Overviewing the impacts of the pandemic (as it's very explicit on table 5 "Collocation Analysis"), the conclusion is that most sectors were affected. After the tourism sector, the health sector was the one with most implications, but that still has big growth opportunities. Internally, it is responsible for job creation and promotion of R&D, whilst it can also look to its demand abroad, of both goods (pharmaceutical sector) and services (tourism, health, and well-being services for senior population). The education, public, and industrial sectors are also crucial for the economy and have margin to improve their competitiveness, after they suffered changes in the pandemic crisis. Those sectors must be considered when discussing the increase of the level of competitiveness of Portugal.

The COVID-19 pandemic has had a significant impact on the competitiveness of businesses in Portugal (Table 4 and Table 5). The pandemic has caused widespread closures and disruptions in various sectors, particularly in the tourism and hospitality industries (Ntounis et al., 2021). These industries, which are crucial to the Portuguese economy, have experienced prolonged closures and later reopening times compared to other sectors (Ntounis et al., 2021). The closure of businesses and restrictions on travel have led to a decline in tourism, resulting in significant economic losses (Shaaban et al., 2020). Portugal, being highly dependent on tourism, has been particularly affected by the crisis (Shaaban et al., 2020).

The labor market in Portugal has also been severely impacted by the pandemic. The pandemic has led to job losses and increased unemployment rates, with certain groups being more vulnerable than others. Young people and women with unstable employment relationships and in temporary work situations have been particularly affected (Almeida & Santos, 2020). The most touristic regions and those with a strong dependence on the exterior have also been heavily impacted (Almeida & Santos, 2020). The pandemic has highlighted the asymmetric impact on different geographical regions, sectors of activity, age groups, and the nature of labor ties (Almeida & Santos, 2020).

The mental health of the Portuguese population has also been affected by the pandemic. The outbreak of COVID-19 has produced dramatic psychological effects on individuals' lives (Moreira et al., 2021). Factors such as living conditions, maintaining work either online or in the workplace, frequency of exercise, and absence of previous psychological or physical disorders have been identified as protective elements of mental health during the pandemic (Moreira et al., 2021). However, the pandemic has also led to an increase in the prescription of anxiolytics, sedatives, hypnotics, and antidepressants, particularly among adults aged 65 years or above (Estrela et al., 2021).

In response to the challenges posed by the pandemic, businesses in Portugal have had to adapt and find new opportunities which is clear from Fig 4 ("Term Frequency Words by Interview"). The use of artificial intelligence (AI) and big data in business operations has been identified as a strategy for turning the crisis into opportunities (Chen & Biswas, 2021). AI and big data can help businesses address challenges such as production and supply-chain disruption, appropriate business model selection, inventory management, budget planning, and workforce management (Chen & Biswas, 2021).

6. Conclusion

There is significant potential for improvement in all sectors of operation, particularly by encouraging a private sector that is inventive, value-adding, and export-oriented as well as a public sector that is lighter and more effective. The findings suggest that Portugal's economy has to be modernized in order to increase its competitiveness in a challenging and intensely competitive global environment. It's also relevant to mention that local economy must considerer bilateral relationships with the foreign stakeholders to increase and leverage all it's potential. The main limitation of this study was the lack of previous research studies about business competitiveness, especially after the pandemic, given the fact that this crisis is still ongoing.

Porter's theory of competitive advantage suggests that Portugal is in an intermediate position between cost leadership and differentiation. Therefore, the country should strive to progress towards differentiation to secure a more sustained competitive position. David Ricardo's theory emphasizes investing in sectors where there is a comparative advantage. While tourism remains a sector with potential due to Portugal's natural conditions, efforts should be made to make it more value-adding. It is also crucial to invest in other sectors that produce tradable goods and services, thereby increasing wealth creation and enabling sustainable growth and higher wages for companies. The intervention of the state plays a key role in promoting competitiveness and economic growth. This includes effectively utilizing the funds from the Recovery and Resilience Plan, reducing the size of the public sector to improve efficiency, and implementing tax reforms that support company creation and development.

Furthermore, the structure of the Portuguese economy is primarily composed of small and medium-sized enterprises (SMEs). Given their significance, the government should provide support beyond financial assistance. This can be achieved by reducing bureaucracy, improving public services, and alleviating the tax burden for companies, thereby creating a more favorable

business environment. Additionally, the government must address sector-specific issues, such as the real estate market, particularly in major cities like Lisbon and Porto, where accommodation has become increasingly unaffordable for the local population. Measures such as attracting major companies and implementing transparent investment legislation could help mitigate these concerns. In the aftermath of the pandemic, sectors such as health, education, public services, and industry require attention to improve their competitiveness and recover from the crisis. Finally, to increase overall competitiveness, Portugal should focus on modernizing its economy, fostering an inventive and value-adding private sector that is export-oriented, while simultaneously ensuring a lighter and more effective public sector. Collaboration with foreign stakeholders through bilateral relationships should also be considered to leverage Portugal's full potential.

Based on the conclusions drawn from the provided information, there are several potential future lines of research that can be explored. Firstly, researchers could investigate the long-term impact of investing in innovation on the Portuguese economy. This line of inquiry would involve studying the specific sectors that have successfully transitioned to value-added goods and services and assessing the sustained impact on economic growth, job creation, and overall competitiveness.

A comparative analysis of competitiveness between Portugal and other countries that have successfully increased their competitive standing could provide valuable insights. By examining the factors contributing to their success, such as policies, industry clusters, or innovation ecosystems, researchers can identify strategies that Portugal can adopt or adapt to enhance its own competitiveness.

Another potential area of research is the impact of tax reforms on economic growth. Scholars could explore the effects of reducing the tax burden on companies in Portugal, studying the impact of specific tax reforms on business creation, expansion, employment, and overall economic growth. Comparative analyses of different tax models and their outcomes in other countries would also yield valuable insights.

Given the importance of the tourism sector for Portugal, future research could focus on strategies for making it more value-adding and sustainable. This may involve studying successful cases of tourism diversification, destination management, and sustainable practices in other countries, and exploring how these approaches can be applied within the Portuguese context.

Evaluating the effectiveness of state intervention in promoting competitiveness and economic growth could be another fruitful area of research. This would involve analyzing the outcomes of specific government policies, such as the implementation of the Recovery and Resilience Plan, tax reforms, or support programs for small and medium-sized enterprises (SMEs). By assessing the impact of these interventions on key economic indicators, researchers can provide insights for future policy decisions.

In addition, researchers could conduct in-depth studies to identify sector-specific competitiveness strategies for industries such as health, education, public services, and industry. By examining innovative approaches, best practices, and policy recommendations,

researchers can explore how these sectors can enhance their competitiveness, foster growth, and create sustainable jobs.

Lastly, exploring the potential benefits and challenges of bilateral relationships with foreign stakeholders in promoting competitiveness would be valuable. Researchers can analyze successful cases of collaboration, trade agreements, and foreign investment in other countries, and explore how Portugal can leverage similar opportunities.

These suggested areas for future research should consider the evolving needs, priorities, and challenges faced by Portugal within the global economic landscape. They provide a starting point for researchers to delve deeper into these topics and contribute to the ongoing efforts to enhance Portugal's competitiveness and economic development.

References

Alves, R. P., Costa, L. F., & Hoernig, S. (2019). Special issue on economic policy in Portugal: innovation, competitiveness, and internationalisation. *Portuguese Economic Journal*, *18*(3), 125–126. https://doi.org/10.1007/s10258-019-00164-1

Arsezen, P., & Babacan, S. (2016). Relationship between Strategic Governance, Business Competitiveness and Networking. *Proceedings of The 6th MAC 2016*, Academic Conferences Association.

Badrinath, R. (2004). Building Business Competitiveness. *International Trade Forum*, *2*, 6-8. https://www.tradeforum.org/Building-Business-Competitiveness/

Barney, J. B. (1996). The resource-based theory of the firm. *Organization science*, *7*(5), 469-469. https://doi.org/10.1287/orsc.7.5.469

Berrone P., Cruz C., Gomez-Mejia L. R. (2012). Socioemotional wealth in family firms: Theoretical dimensions, assessment approaches, and agenda for future research. *Family Business Review*, *25*(3), 258–279. https://doi.org/10.1177/0894486511435355

Cabrita, M. D. R., & Bontis, N. (2008). Intellectual capital and business performance in the Portuguese banking industry. *International Journal of Technology Management*, *43*(1-3), 212-237.

Casimiro, M., & Chambel, M. J. (2014). Culture in small-sized Portuguese family businesses: Do first and second generations make a difference?. *Management research: the journal of the Iberoamerican Academy of Management*. *12*(1), 40-67. DOI:10.1108/MRJIAM-11-2012-0495

Cherchye, L., Moesen, W., Rogge, N. & Van Puyenbroeck, T. (2007). An introduction to 'benefit of the doubt' composite indicators. *Social Indicators Research*, *82*(1), 111-145. https://doi.org/10.1007/s11205-006-9029-7

Corbo, L., Pirolo, L., & Rodrigues, V. (2018). Business model adaptation in response to an exogenous shock: An empirical analysis of the Portuguese footwear industry. *International Journal of Engineering Business Management*, *10*, 1847979018772742. https://doi.org/10.1177/1847979018772742

Di Gregorio, D., Musteen, M., & Thomas, D. E. (2009). Offshore outsourcing as a source of international competitiveness for SMEs. *Journal of International Business Studies*, *40*(6), 969-988. https://doi.org/10.1057/jibs.2008.90

Distanont, A., & Khongmalai, O. (2020). The role of innovation in creating a competitive advantage. *Kasetsart Journal of Social Sciences*, *41*(1), 15-21. https://so04.tci-thaijo.org/index.php/kjss/article/view/234863

Dzwigol, H., Dzwigol-Barosz, M., & Kwilinski, A. (2020). Formation of global competitive enterprise environment based on industry 4.0 concept. *International Journal of Entrepreneurship*, *24*(1), 1-5.

Elkington, J. (1998). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. New Society Publisher: Canada.

Fahmi, I. (2012). Sustainable Business Competitiveness: Translating Concept into Practice. *Jurnal Manajemen & Agribisnis, 9(2), 1-5*. https://doi.org/10.17358/jma.9.2.1-5

Fatonah, S., & Haryanto, A. (2022). Exploring market orientation, product innovation and competitive advantage to enhance the performance of SMEs under uncertain evens. *Uncertain Supply Chain Management*, *10*(1), 161-168. doi: 10.5267/j.uscm.2021.9.011

Firfiray, S., & Gomez-Mejia, L. R. (2021). Can family firms nurture socioemotional wealth in the aftermath of Covid-19? Implications for research and practice. *BRQ Business Research Quarterly*, *24*(3), 249–257. https://doi.org/10.1177/23409444211008907

Foltýn, I. (2000). Konkurenceschopnost-mlhavý pojem nebo ekonomicky měřitelná veličina.

Frolova, Y., Alwaely, S. A., & Nikishina, O. (2021). Knowledge Management in Entrepreneurship: Education as the Basis for Creative Business Development. *Sustainability*, *13*(3), 1167. https://doi.org/10.3390/su13031167Gibson, D. V., & Naquin, H. (2011). Investing in innovation to enable global competitiveness: The case of Portugal. *Technological Forecasting and Social Change*, *78*(8), 1299–1309. https://doi.org/10.1016/j.techfore.2011.04.004

Hagiu, A., & Wright, J. (2020). When data creates competitive advantage. *Harvard business review*, *98*(1), 94-101. Herciu, M. (2015). Challenges for Business Competitiveness from Managerial and Knowledge Economy Perspectives. *Studies in Business and Economics*, *10*(3), 32–40. https://doi.org/10.1515/sbe-2015-0033

Hickman, L., Thapa, S., Tay, L., Cao, M., & Srinivasan, P. (2022). Text preprocessing for text mining in organizational research: Review and recommendations. *Organizational Research Methods*, *25*(1), 114-146. https://doi.org/10.1177/1094428120971683

Horvathova, J., & Mokrisova, M. (2020). Business Competitiveness, its Financial and Economic Parameters. *Montenegrin Journal of Economics*, *16*(1), 139–153. https://doi.org/10.14254/1800-5845/2020.16-1.9

Hotho, A., Nürnberger, A., & Paaß, G. (2005, May). A brief survey of text mining. In *Ldv forum*, *20*(1), 19-62.

Kolkova, A. (2020). The Application of Forecasting Sales of Services to Increase Business Competitiveness. *Journal of Competitiveness*, *12(2), 90–105*. https://doi.org/10.7441/joc.2020.02.06

Lafuente, E., Alonso-Ubieta, S., Leiva, J. C., & Mora-Esquivel, R. (2021). Strategic priorities and competitiveness of businesses operating in different entrepreneurial ecosystems: a

benefit of the doubt (BOD) analysis. *International Journal of Entrepreneurial Behavior & Research*, *27*(5), 1351–1377. https://doi.org/10.1108/ijebr-06-2020-0425

Lafuente, E., Szerb, L., & Rideg, A. (2020). A system dynamics approach for assessing SMEs' competitiveness. *Journal of Small Business and Enterprise Development*, *27*(4), 555–578. https://doi.org/10.1108/jsbed-06-2019-0204

Lopes, F. C., Morais, M. P., & Sasvari, P. (2014). Comparative Analysis on the Usage of Business Information Systems among Portuguese and Hungarian Small and Medium-Sized Enterprises. In *Information Systems and Technology for Organizational Agility, Intelligence, and Resilience* (pp. 265-296). IGI Global.

Marques, C. S., Gerry, C., Covelo, S., Braga, A., & Braga, V. (2011). Innovation and the performance of Portuguese businesses: a'SURE'approach. *International Journal of Management and Enterprise Development*, *10*(2-3), 114-128. https://doi.org/10.1504/IJMED.2011.041545

Mester, L. E., & Bugnar, N. G. (2014). Competitiveness And Supporting the Business Competitiveness. *Annals of Faculty of Economics, University of Oradea, Faculty of Economics, vol. 1(2), 106-110, December*

Morais, E. P., Santos, S. S., & Gonçalves, R. (2010). Electronic business maturity in Portuguese SME and large enterprises. In *14th IBIMA conference on Global Business Transformation through Innovation and Knowledge Management*. International Business Information Management Association (IBIMA).

Na, Y. K., Kang, S., & Jeong, H. Y. (2019). The effect of market orientation on performance of sharing economy business: Focusing on marketing innovation and sustainable competitive advantage. *Sustainability*, *11*(3), 729. https://doi.org/10.3390/su11030729

Nassirtoussi, A. K., Aghabozorgi, S., Wah, T. Y., & Ngo, D. C. L. (2014). Text mining for market prediction: A systematic review. *Expert Systems with Applications*, *41*(16), 7653-7670. https://doi.org/10.1016/j.eswa.2014.06.009

Nunes, P. M., & Serrasqueiro, Z. (2015). Profitability determinants of Portuguese knowledge-intensive business services: Empirical evidence using panel data models. *Applied Economics Letters*, *22*(1), 51-56. https://doi.org/10.1080/13504851.2014.925041

Parast, M. M., & Safari, A. (2022). Enhancing the quality and competitiveness of small businesses: A pooled cross-sectional analysis. *International Journal of Production Economics*, *246*, 108410. https://doi.org/10.1016/j.ijpe.2022.108410

Pereira, O., & Correia, I. (2012). Entrepreneurship, innovation and business competitiveness in the service-producing sector: implementation to mainland Portugal. *Applied Econometrics and International Development*, *12*(1), 51-62.

Prasanna, R. P. I. R., Jayasundara, J. M. S. B., Gamage, S. K. N., Ekanayake, E. M. S., Rajapakshe, P. S. K., & Abeyrathne, G. A. K. N. J. (2019). Sustainability of SMEs in the competition: A systemic review on technological challenges and SME performance. *Journal of Open Innovation: Technology, Market, and Complexity*, *5*(4), 100. https://doi.org/10.3390/joitmc5040100

Player, S. D. (2021). Taking Care of Business: Privileging Private Sector Hospitals During the COVID Crisis. *International Journal of Health Services*, *51*(3), 305–310. https://doi.org/10.1177/00207314211012147

Porter, M. E. (1987). From Competitive Advantage to Corporate Strategy. Harvard Business Review, 65(3), May/June.

Ribeiro, J. C., & Santos, J. F. (2008). Region-based business strategies: a Portuguese case study. *EuroMed Journal of Business*, *3*(3), 320-334. https://doi.org/10.1108/14502190810906464

Ricardo, D. (1817) On the Principles of Political Economy and Taxation (John Murray, London). In: Sraffa, P., Ed., The Works and Correspondence of David Ricardo, Vol. 1, Cambridge University Press, Cambridge, 1951.

Rocha, B. T. (2018). Baixa produtividade: Afetação de recursos e obstáculos ao crescimento das empresas na economia portuguesa. *Notas Económicas*, *47*, 31–45. https://doi.org/10.14195/2183-203x_47_2

Rostami, N., Khyareh, M., & Mazhari, R. (2019). Competitiveness, entrepreneurship, and economic performance: Evidence from factor-, efficiency-, and innovation-driven countries. *Ekonomski Anali*, *64*(221), 33–64. https://doi.org/10.2298/eka1921033r

Silva, R., Coelho, A., Sousa, N., & Quesado, P. (2021). Family business management: A case study in the Portuguese footwear industry. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 55. https://doi.org/10.3390/joitmc7010055

Singh, R. K., Garg, S. K., & Deshmukh, S. G. (2010). The competitiveness of SMEs in a globalized economy: Observations from China and India. *Management research review*, *33*(1), 54-65. https://doi.org/10.1108/01409171011011562

Singh, R. K., Garg, S. K., & Deshmukh, S. G. (2008). Strategy development by SMEs for competitiveness: a review. *Benchmarking: An international journal*, *15*(5), 525-547. https://doi.org/10.1108/14635770810903132

Spreckley F. (1981). *Social Audit: A Management Tool for Cooperative Working*. Beechwood College: Leeds.

Stewart, G. B. (1991). *The Quest for Value: A Guide for Senior Managers*. Harper Collins Publishers: New York.

Tomé, E., Gromova, E., & Hatch, A. (2020). Did the Bubble Burst? The Portuguese Economy During COVID-19. *Management & Marketing. Challenges for the Knowledge Society*, *15*(Special Issue), 477–495. https://doi.org/10.2478/mmcks-2020-0028

Uzzi, B. (1996). The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American sociological review*, 674-698. https://doi.org/10.2307/2096399

Veiga, P. M., Teixeira, S. J., Figueiredo, R., & Fernandes, C. I. (2020). Entrepreneurship, innovation and competitiveness: A public institution love triangle. *Socio-Economic Planning Sciences*, *72*, 100863. https://doi.org/10.1016/j.seps.2020.100863

Vinhas da Silva, R. (2018). *Por que não cresce a Economia Portuguesa?*. Caleidoscópio.

Voulgaris, F., & Lemonakis, C. (2014). Creating a Business Competitiveness Index: An Application to Greek Manufacturing Firms. *Journal of Transnational Management*, *19*(3), 191–210. https://doi.org/10.1080/15475778.2014.929921

Zagorseková, N., Čiefová, M., & Čambalíková, A. (2018). Competitiveness and Economic Growth in the European Union. *Journal of Advanced Research in Law and Economics, 8*(30), 2408-2418. https://doi.org/10.14505//jarle.v8.8(30).11

Andrade, J., Duarte, A. (2011). The Fundamentals Of the Portuguese Crisis. Panoeconomicus, 2(58), 195-218. https://doi.org/10.2298/pan1102195a

Barradas, R., Lagoa, S., Leão, E., Mamede, R. (2018). Financialization In the European Periphery And The Sovereign Debt Crisis: The Portuguese Case. Journal of Economic Issues, 4(52), 1056-1083. https://doi.org/10.1080/00213624.2018.1527589

Branstetter, L., Kovak, B., Mauro, J., Venancio, A. (2019). The China Shock and Employment In Portuguese Firms.. https://doi.org/10.3386/w26252

Caldeira, M., Ward, J. (2002). Understanding the Successful Adoption And Use Of Is/it In Smes: An Explanation From Portuguese Manufacturing Industries. Inform Syst J, 2(12), 121-152. https://doi.org/10.1046/j.1365-2575.2002.00119.x

Cardoso, A., Pereira, R. (2022). Relating Industry 4.0 and The Sme Internationalization Process., 40-60. https://doi.org/10.4018/978-1-6684-5538-8.ch003

Cardoso, A., Pereira, R. (2022). Relating Industry 4.0 and The Sme Internationalization Process., 40-60. https://doi.org/10.4018/978-1-6684-5538-8.ch003

Carlos, D., Pádua, E., Silva, L., Silva, M., Marques, W., Leitão, M., … & Ferriani, M. (2017). The Care Network Of the Families Involved In Violence Against Children And Adolescents: The Primary Health Care Perspective. J Clin Nurs, 15-16(26), 2452-2467. https://doi.org/10.1111/jocn.13692

Chorianopoulos, I. (2002). Urban Restructuring and Governance: North-south Differences In Europe And The Eu Urban Initiative. Urban Studies, 4(39), 705-726. https://doi.org/10.1080/00420980220119534

Ciascai, G., Defalvard, H. (2022). Big Business In the Social Commons., 81-95. https://doi.org/10.25518/ciriec.css3chap4

Costa, R., António, N., Miguel, M. (2017). Internationalisation and Economic Growth: The Portuguese Case. IJLC, 1(1), 1. https://doi.org/10.1504/ijlc.2017.10005135

Cunha, S., Teixeira, B., Marques, P., Pedro, S., Nunes, M., Marques, A. (2011). Shelf-life Of Cooked Edible Crab (Cancer Pagurus) Stored Under Refrigerated Conditions. LWT - Food Science and Technology, 6(44), 1376-1382. https://doi.org/10.1016/j.lwt.2011.01.010

Duarte, M. (2022). Portugal and The European Monetary Union., 635-C41.P60. https://doi.org/10.1093/oxfordhb/9780192855404.013.40

Duarte, M., Simões, M. (2014). Tertiarization and Human Capital: Do They Matter For Growth? Insights From Portugal. Annals of the Alexandru Ioan Cuza University - Economics, 1(61), 30-53. https://doi.org/10.2478/aicue-2014-0001

Emikönel, M., Meyer, D., Orhan, A., Couto, G., Castanho, R. (2022). The Advantage Of Being a Small Country On Economic Growth Spillovers: A Review On Spain And Portugal With Ardl Approach. Wseas Transactions on Business and Economics, (19), 376-385. https://doi.org/10.37394/23207.2022.19.33

Enache, C., Mucharreira, P., Antune, M. (2022). Seasonal Deviations In Tourist Accommodation Establishments In Romania and Portugal - A Quantitative Analysis.. https://doi.org/10.24818/basiq/2022/08/105

Faustino, H., Leitão, N. (2011). Fragmentation In the Automobile Manufacturing Industry: Evidence From Portugal. Journal of Economic Studies, 3(38), 287-300. https://doi.org/10.1108/01443581111152409

Fernandes, J., Maguire, K., Santos, L. (2022). An Examination Of the Sustainable And Green Practices Of Portuguese Hotels. ICTR, 1(15), 581-587. https://doi.org/10.34190/ictr.15.1.120

Figueira, L., Honrado, G., Dionísio, M. (2021). Human Capital Management In the Tourism Industry In Portugal., 1-19. https://doi.org/10.4018/978-1-7998-4318-4.ch001

Ivanova, A., Nikolskaya, E. (2022). Personnel Training As a Condition For Innovative Development Of An Enterprise In The Conditions Of The Digital Economy (On The Example Of The Hotel Business).. https://doi.org/10.56199/dpcsebm.psgv3129

Jappelli, T., Pagano, M. (1994). Saving, Growth, and Liquidity Constraints. The Quarterly Journal of Economics, 1(109), 83-109. https://doi.org/10.2307/2118429

Loureiro, A. (2014). Did the Context Of Economic Crisis Affect The Image Of Portugal As A Tourist Destination?. Worldwide Hospitality and Tourism Themes, 5(6), 466-469. https://doi.org/10.1108/whatt-09-2014-0030

MAGONE, J. (2009). Portugal. European Journal of Political Research, 7-8(48), 1080-1086. https://doi.org/10.1111/j.1475-6765.2009.01866.x

Maia, B., Paralta, S. (2021). The Seasonality Structure Of Demand In the Portuguese Hotel Industry Before The Covid-19 Pandemic. ERBE, 2(I). https://doi.org/10.26619/erbe-2021.i.2.5

Mariano, S., Calado, M., Ferreira, L. (2010). Profit-based Optimal Operation Of a Head-dependent Hydroelectric Power Station In The Bilateral Market. REPQJ, 08(1), 1482-1487. https://doi.org/10.24084/repqj08.700

Neves, D., Ribeiro, M., Pereira, E. (2015). Determinants Of Touristic Attraction In Portuguese Regions and Their Impact On Gdp. Tourism Economics, 3(21), 629-648. https://doi.org/10.5367/te.2013.0361

Oliveira, M., Cepeda, M., Bernabéu, R. (2019). Evolution Of the Processed Tomato Sector In Portugal And Spain: Comparative Analysis. Emir J Food Agric, 470. https://doi.org/10.9755/ejfa.2019.v31.i6.1970

Raimundo, R., Domingues, N. (2021). The Model Of the Five Competitive Forces On Portuguese Electricity Market. ME, 01(12), 140-153. https://doi.org/10.4236/me.2021.121007

Reis, J. (2010). The Narrow Tracks Of the Portuguese Economy: Labour, Production, Businesses And Markets*. rccsar, 2. https://doi.org/10.4000/rccsar.215

Rodrigues, J., Santos, A., Teles, N. (2016). Semi-peripheral Financialisation: the Case Of Portugal. Review of International Political Economy, 3(23), 480-510. https://doi.org/10.1080/09692290.2016.1143381

Romão, A., Barradas, R. (2020). Macroeconomic Determinants Of Households' Indebtedness In Portugal: What Really Matters In the Era Of Financialisation?.. https://doi.org/10.15847/dinamiacet-iul.wp.2020.06

Sarmento, E., Nunes, A. (2014). Business Creation In Portugal: a Viewpoint On Data Comparison. J. Enterprising Culture, 01(22), 111-132. https://doi.org/10.1142/s0218495814500058

Soukiazis, E., Cerqueira, P., Antunes, M. (2012). Modelling Economic Growth With Internal and External Imbalances: Empirical Evidence From Portugal. Economic Modelling, 2(29), 478-486. https://doi.org/10.1016/j.econmod.2011.12.001

Soukiazis, E., Cerqueira, P., Antunes, M. (2013). Growth Rates Constrained By Internal and External Imbalances And The Role Of Relative Prices: Empirical Evidence From Portugal. Journal of Post Keynesian Economics, 2(36), 275-298. https://doi.org/10.2753/pke0160-3477360205

Sowah, J. (2023). The Asymmetric and Symmetric Effect Of Energy Productivity On Environmental Quality In The Era Of Industry 4.0: Empirical Evidence From Portugal. Sustainability, 5(15), 4096. https://doi.org/10.3390/su15054096

Tavares, L. (2002). Development Policies In the Eu And Technology Foresight: An Experiment In Portugal. Foresight, 2(4), 33-45. https://doi.org/10.1108/14636680210435128

Varum, C., Guimarães, C., Oliveira, J., Martins, A. (2020). Industrial Dynamics In the Context Of A Region's International Competitiveness. Local Economy, 3(35), 209-229. https://doi.org/10.1177/0269094220922823

completo, F., Gustavo, N. (2014). Golf Tourism Destination Management: Looking For a Sustainable Demand: The Case Of Portugal. JMS, 1(4). https://doi.org/10.5539/jms.v4n1p142

Águas, P., Veiga, C., Reis, H. (2010). Competitive Destination Analysis In Southern European Countries. Worldwide Hospitality and Tourism Themes, 4(2), 364-375. https://doi.org/10.1108/17554211011074029

Almeida, F., Santos, J. (2020). The Effects Of Covid-19 On Job Security and Unemployment In Portugal. IJSSP, 9/10(40), 995-1003. https://doi.org/10.1108/ijssp-07-2020-0291

Chen, Y., Biswas, M. (2021). Turning Crisis Into Opportunities: How a Firm Can Enrich Its Business Operations Using Artificial Intelligence And Big Data During Covid-19. Sustainability, 22(13), 12656. https://doi.org/10.3390/su132212656

Estrela, M., Silva, T., Gomes, E., Piñeiro, M., Figueiras, A., Roque, F., … & Herdeiro, M. (2021). Prescription Of Anxiolytics, Sedatives, Hypnotics and Antidepressants In Outpatient, Universal Care During The Covid-19 Pandemic In Portugal: A Nationwide, Interrupted Time-series Approach. J Epidemiol Community Health, 4(76), 335-340. https://doi.org/10.1136/jech-2021-216732

Moreira, P., Ferreira, S., Couto, B., Machado-Sousa, M., Fernández, M., Raposo-Lima, C., … & Morgado, P. (2021). Protective Elements Of Mental Health Status During the Covid-19 Outbreak In The Portuguese Population. IJERPH, 4(18), 1910. https://doi.org/10.3390/ijerph18041910

Ntounis, N., Parker, C., Skinner, H., Steadman, C., Warnaby, G. (2021). Tourism and Hospitality Industry Resilience During The Covid-19 Pandemic: Evidence From England. Current Issues in Tourism, 1(25), 46-59. https://doi.org/10.1080/13683500.2021.1883556

Shaaban, A., Peleteiro, B., Martins, M. (2020). Covid-19: What Is Next For Portugal?. Front. Public Health, (8). https://doi.org/10.3389/fpubh.2020.00392